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## ESSAYS AND STUDIES <br> PRESENTED TO

# WILLIAM RIDGEWAY 

Sc.D., LL.D. (Aberdeen), Litt.D. (Dublin and Manchester), F.B.A. DISNEY PROFESSOR OF ARCHAEOLOGY AND BRERETON READER

IN CLASSICS IN THE UNIVERSITY OF CAMBRIDGE FELLOW OF GONVILLE AND CAIUS COLLEGE

ON HIS SIXTIETH BIRTHDAY<br>6 AUGUST 1913

## EDITED BY

E. C. QUIGGIN, M.A., Ph.D.

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FELLOW OF GONVILLE AND CAIUS COLLEGE
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Cambridge :
at the University Press
1913


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PRINTED BY JOHN CLAY, M.A.
AT THE UNIVERSITY PRESS

IN the autumn of 1912 it was determined to celebrate the sixtieth birthday of the scholar in whose bonour this miscellany bas been prepared. The number of Professor Ridgeway's friends, and the extraordinary range of bis interests, made a choice of contributors both necessary and difficult. Many of those who were first approached were in the end prevented by the pressure of official or other duties from taking part in the work; several others, who first beard of it when a circular was issued last June, were eager to join in the project, but the book bad already outgrown the limit of size which bad been fixed by agreement with the Syndics of the University Press. Many more friends therefore of Professor Ridgeway are to be regarded as taking part in this tribute to bim than those whose names appear as writers of papers in the volume.

For the antbropological chapters the editor sought the advice of $\operatorname{Dr}$ A. G. Haddon, F.R.S., and Dr W. H. R. Rivers, F.R.S. The first half of the book was planned in consultation with Professor R. S. Conway, Litt.D., and Mr E. Harrison, M.A.; but the co-operation of these two scholars was by no means confined to the classical chapters, and it is largely owing to their active assistance and whole-bearted sympatby that the editor bas been able to carry the work to a successful issue.

The staff of the University Press bave earned the gratitude of all friends of Professor Ridgeway by belping to produce a volume worthy of the occasion.
(2)

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BY A, BERESFORD PITE

## I.

Confess, ye studious! who with eager zest
Read, mark, and learn, and sometimes e'en digest,-
Confess, ye learned, who your hours devote
To scorning Mommsen and neglecting Grote,-
Whate'er the bliss, origines to trace,
To guess at Time, and speculate on Place,
Our rude forefathers, with their narrower view,
Were less distracted by the Past than you.
In happy ignorance their days were spent:
They had no inkling what Pelasgians meant:
For them, Greek History spread its simple store,
They knew their Hellas, and they knew no more,-
The blue Aegean in that age of peace
Held nougbt for them but Histories of Greece:
The mythic bero and the fabled sage
Were still Atbenians of a different age,-
Minos was Pericles in embryo,
And Rbadamantbus judged in ó $\dot{\eta}$ tó.
E'en when Max Müller, celebrated man!
Conceived the Past upon a different plan,
Divulged the fact,-and pleased the world therewith,-
That Agamemnon was a Solar Myth,
And frst presented to our mental view
The glorious certainty that nougbt was true,-
E'en then each legend borwso'er designed
Was still a figment of the Grecian mind:
No part of dim antiquity but it
Was made, or fancied, by Hellenic wit.

## II.

Where ancient scbolars all unskilled to seek Knerw but the country of the classic Greek, That world of Hellas now we see at last A transient phase, a moment in the past: We view the Grecian in bis proper place, Heir to the legends of some alien race: With eyes to see, with genius to impart, Cbildlike in wonder, balf divine in art, Clotbing with random fancies of his own The mighty relics of an age unknown: Though but for bim the world bad ne'er been taught How Minos ruled and great Acbilles fought, Yet this great Fact transparently appearsThat (save the trifing accident of years) We to Antiquity are nearer far Than Hellas was, -at least, Professors are; For as to Crete, whate'er's revealed or bid, Berlin knows more than Athens ever did.

## III.

Far from the Greek our modern scholars roam:
They trace the shy Pelasgian to bis home: With names of fear the startled world resounds, Pre-Hittite pots and post-Minoan mounds: As Homer's beroes in a mist concealed Deal blow on blow, while darkness veils the field, So battle still 'mid prebistoric mists Etbnologists and Archacologists, Where shifting vapours show their endless quest Glimpses of empires, and conceal the rest. What mighty deeds are perpetrated there! Programs and Theses burtle through the air: Exploded creeds and doctrines newly slain Rise from the slaugbter and contend again: Unboped-for data realms unknown create, And History's course is altered while you wait: None wins, none loses in that endless fight, Where none is wrong, since none can c'er be right.

Perchance some digger in a site forgot Constructs new nations from a Delian pot,Not long be triumphs, ere the vast design Is dashed to dust by one emended line! What though the student whom such themes attract Pines for an ounce of undiluted Fact? Why ask for more? be sees with pleased surprise Potential vistas bid from earlier eyes, And knows as much,-be this bis comfort still, Of Fact unquestioned-as bis grandsons will.

## IV.

'Tis well to find what all acknowledge true: Yet, that once stated, what remains to do? Grant Trutb bistoric by the world received, Like Euclid proved, like Holy Writ believed,Could sages drop their acrimonious pens To sport like cbildren on each others' dens, No more each rival's theories destroy, Accept one doctrine for the tale of Troy,——— What then remains, when everyone agrees, For learned men in Universities?
Dull were the world, intolerably flat:
Yet, Heaven be thanked! there's no great fear of that.
Small fear of that! While wild researchers strive How $2+2$ may best amount to 5, Yet are there those who broadly can survey The mightiest movements of a distant day; Who trace those nations to their earliest bome That fought at Ilion and that founded Rome: Who, while a lance (or bead) remains to break, Seek the large issue, and the nobler stake: Of tedious pedants though the world be full, While RIDGEW AT lives, Research can ne'er be dull!

A. D. Godley.

## VIRO CLARISSIMO

## GULIELMO RIDGEWAY

## LUSTRUM DUODECIMUM FELICITER EXPLENTI.









 $\eta_{\eta} \sigma \alpha v \rho o u ̀ ~ \sigma o \phi i ́ n s ~ o u ̈ \pi о т \epsilon \epsilon ~ ф \epsilon i \delta o ́ \mu \epsilon \nu o s . ~$
 oú $\tau$ ' "́ $\rho^{\prime}$ vi $\pi \epsilon \rho \beta a ́ \lambda \lambda \omega \nu$ oú $\tau$ ’ є่ $\pi i \delta \epsilon \cup o ́ \mu \epsilon \nu o s ;$












 єīos є̀vi $\gamma \lambda a \phi \cup \rho o i ̂ s ~ \sigma \pi \epsilon ́ \sigma \sigma \iota \nu ~ \epsilon ้ v a l o \nu ~ \epsilon ́ \tau \iota, ~$
 каі ßıótoи та́бทs єútäins ápa日єis.
 $\pi \alpha \nu \tau о \delta \alpha \pi \bar{\omega} \nu \quad \grave{\epsilon} \theta \nu \bar{\omega} \nu, \tau \bar{\omega} \nu \dot{\alpha} \phi^{\prime} Y \pi \epsilon \rho \beta о \rho \epsilon ́ \omega \nu$




 $\tau \hat{\omega \nu}$ ó $\lambda о \hat{\omega} \nu$ є́ $\chi$ Өр $\bar{\omega} \nu$ є́ $\rho к о s ~ ब ं \lambda \epsilon \xi ' к к к о \nu, ~$ áprıódovtos vòs סoıoùs Yeuruúvtes dóóvtas， $\sigma \chi \bar{\eta} \mu a ́ \quad \gamma \epsilon$ ס̀̀ $\mu \eta \prime \nu \eta s$ є̇ $\mu \phi а \nu \epsilon ̀ s ~ a ̀ \mu ф ' к є \rho \omega . ~$



 ＂$\Delta \omega \rho!\epsilon \in \omega \nu \tau \epsilon \tau \rho ı \chi \alpha i ̈ к \omega \nu$ סícuv $\tau \epsilon \Pi \epsilon \lambda \alpha \sigma \gamma \overline{\omega \nu}$＂




 oîa $\sigma \dot{v} \phi \omega \sigma \phi o ́ \rho o s ~ \omega i s ~ a ́ \sigma \tau ท i \rho ~ \tau o i ̂ s ~ \pi \lambda a \zeta о \mu ' ́ v o \iota \sigma \iota \nu ~$ $\nu v к \tau i \quad \sigma \alpha \phi \eta \nu i \zeta \epsilon \iota s$＇ $\mathrm{E} \lambda \lambda a$ áoos vin
 Maıovíón Өєiov тóv tє кєрavnoßó入ov
 Ka $\alpha \tau \alpha \lambda^{\prime} \delta o s, ~ M o v \sigma \epsilon \epsilon \omega \nu ~ \delta \omega \rho \alpha ~ \lambda \alpha \chi \omega ̀ \nu ~ \epsilon ่ \rho \alpha \tau \alpha ́ . ~$








 סоín каi 乃ıóтои тє́ $\rho \mu \alpha$ то入vхро́vıov．

John Harrower．

## THE STRUCTURE OF THE SIXTH BOOK OF THE AENEID ${ }^{1}$

The Sixth Book of the Aeneid represents the climax of Vergil's ambition. From his schoolboy days when he devoted the central part of his Culex ${ }^{2}$ to a description of the underworld; through the early prime of his poetry when three times over in the Georgics he turned eagerly to and reluctantly away from the theme, not without leaving the immortal story of Orpheus and Eurydice to be preserved in a place not its own ; to the full maturity of his power in the Aeneid where he cannot exclude it even from the pictures upon the shield of Aeneas,-the subject haunted his imagination and claimed a place in his deepest thought. And in the greatest of all the Books of the Aeneid, which, as Mr Mackail has pointed out, reaches out before and after its own province, summing up and linking together the whole Epic in a way attempted in no other part of it, we have the ripest fruit of his genius. If there is any part of Vergil's writing in which we can be sure, despite his own last request, that we have his work elaborated to the farthest degree which the poet's life was long enough to permit, it is the Sixth

[^0]Book of the Aeneid-the last of the three which we know ${ }^{1}$ he read to the Emperor.

Of the reasons for which the Book was placed where it stands in the poem, two may be mentioned. The first has been pointed out more than once in recent years; namely, that the sanctity of the process of enlightenment which Aeneas is called to pass through lifts the succeeding half of the story to a higher plane; and, in particular, prepares the reader for a higher note of magnanimity and gentleness in the hero Aeneas himself ${ }^{2}$. The second reason has probably been felt by many readers of the Odyssey who have compared its ending with that of Vergil's epic. It is true that we could ill spare the mutual $\dot{\alpha} \nu \alpha \gamma \nu \dot{\prime} \rho \iota \sigma \iota$ of Odysseus and Laertes in the twentyfourth Book; but it will hardly be contended that the rest of the Book, or even that this charming picture itself, does not appear rather as an anti-climax in the story after the slaying of the suitors. Perhaps it would be truer to say that the end of the Homeric Epic is essentially undramatic, just because it was essential to the story to make the home-coming complete in some of its more tender and simple details. Vergil's Epic which was to foretell the foundation of a world-wide Empire, and the mission of Rome in the life of mankind, must, in point of time, reach out beyond the mere settlement of Aeneas in Italy. But in order to avoid this non-dramatic conclusion Vergil placed his forward-reaching chapter not at the end but in the centre of his poem; so that the story of the Epic itself ends with a climax second to none in tragic poetry-the death in single combat of the last opponent of the whole providential design.

This cardinal importance of the Sixth Book has been realised by modern scholars. Professor Norden's monu-

[^1]mental edition of the Book might alone stand as evidence of this recognition even in a country where, by some strange freak of local sentiment, the reverence which Goethe, Schiller and Lessing felt for Vergil was succeeded by a period of comparative neglect ${ }^{1}$. He would be a bold man who should hope to add much to the stores of illustration or to the judicial lucidity of the historical and philosophical interpretation which Norden's great commentary offers. Yet there still remain, I believe, some points of view, not all of them confined to details, from which fresh light may be gained for a study of the Book as a poem, and a poem complete in itself. Upon the genesis of this poem in its present shape, and on the historical, traditional, local, in a word, the external reasons which probably led Vergil to include all the various incidents in his plot, Norden's collection of evidence is invaluable ; and no interpretation can be adequate which fails to take account of such considerations. Vergil worked like a goldsmith, picking his precious metals and jewels from a thousand different sources and shaping his design with the knowledge of many earlier designs before him. And yet the master-inspiration, the guiding creative spirit of his craft, was something greater than all his material. Some of us at least are convinced that in such a book as this, there is no single point which is not directly related to Vergil's central purpose ; which was not somehow a channel for currents that flowed from the deepest springs of his poetry.

It is difficult to dispense with these somewhat abstract statements as a preface to the considerations for which this paper is intended to plead. But the truth of any particular contention will, I hope, be measured by the reader according to the degree in which it may appear to make the particular passages under discussion more intelli-

[^2]gible, more significant, more like what lovers of Vergil know him to have been, however roughly their conception of the poet's feeling may be put into words. One safe method of estimating what Vergil most keenly wished to convey is also a simple one ; namely, to glance at the earlier history of the conceptions with which he dealt.

The pictures of the After-world in Homer and Plato stand out from the mass of earlier imaginings. They represent very well, as Norden (p. 5) has pointed out, the two mainly independent and partly competing theories or accounts current in antiquity, which may be called, one the Mythological, and the other that of the Philosophers or Theologians.

The Néкиıa of the Odyssey is constructed in a very simple way. When the hero comes 'to the limits of the world, the deep flowing stream of ocean, where was the land and city of the Cimmerians, shrouded in mist and cloud' (that is, of course, the Northern seas, as reflected in the stories of early sailors) he and his crew hold their way along the stream ' until they came to a waste shore, and the groves of Persephone, tall poplar trees and willows that shed their fruit before the season.' Then beside a rock which is the meeting-place of the two infernal rivers, Acheron and Cocytus, Odysseus dug a trench, a cubit long and broad, and poured into it the proper drink offerings 'to all the dead,' beseeching their 'strengthless heads' that they would rise and speak to him ; then the sheep are sacrificed and the dark blood flows forth into the trench. Many spirits he sees, ' of brides and youths unwed, of old men who had seen many evil days, and of tender maidens with grief yet fresh at heart ; and many there were that had been slain in fight with their bloody mail about them.' First of all the spirits came Elpenor, who had fallen from the upper floor of Circe's house, missing the ' long ladder' in the blindness brought on him by draughts of her wine, and whose body had been left unburied when Odysseus and his comrades sailed away.

Odysseus promises him due burial, but he kept both him and all the other spirits back from the trench, where they longed to drink the blood, until the spirit of the Theban prophet Teiresias came to give him the counsel he was in need of.

Then follows a long series of conversations with a succession of shades; first the hero's mother ; then a string of Fair Women with pretty Theban names, Tyro, Antiope, Alcmene, Epicaste, Chloris, Maira, Clymene, Eriphyle, and the rest ; and then Agamemnon and Achilles with his famous reply to words of courtly comfort: 'Nay, speak not comfortably to me of death, great Odysseus. Rather would I live on ground as the hireling of another, with a landless man who hath no great livelihood, than bear sway among all the dead that be departed.' Odysseus, however, gives him news of his son's prowess, and Achilles 'departs with great strides, along the mead of asphodel rejoicing.' Next Odysseus sees his old rival Ajax, the son of Telamon, who refuses to answer, remembering still his grudge. There this particular lay must once have ended, and even within this section it is clear that at least the catalogue of the ghosts of Fair Women did not belong to the earliest form of the story. There follows at the end of the book an interesting passage which gives us a series, no longer of interviews, but of mere portraits-introduced quite baldly by the formula 'and then I saw there'; King Minos giving judgment ; 'Orion driving the wild beasts together over the mead, the very beasts that himself had slain on the lonely hills'; then of the various criminals undergoing punishment (Tityos, Tantalus, and Sisyphus) ; and finally, a curious interview with the ghost of Heracles who, however, we are warned, is not Heracles himself, because Heracles himself is living with the gods.

Even therefore in the longest form of the story we have no real descent into any world of the dead; only a series of separate pictures which somehow or other Odysseus was supposed to have seen as he stood by his
trench. On this very ground Aristarchus ${ }^{1}$ rejected the passage, asking 'How could Odysseus see these or the others who were all within the gates of Hades?' And it is clear that the earliest version contained nothing but the summoning by magical means of certain ghosts in order to hold converse with him. There is no theory here beyond the very simplest belief in the possibility of visions of the dead. There is no picture of the After-world as a whole, and there is hardly a hint of any part of the future in which happiness could be conceived; not even in the work of the latest poet who may have helped to fashion this book. To him as to his predecessors, if a soul were in Hades at all, it was either being grievously tormented, or mourning its death, or at best pursuing in darkness some phantom counterpart of the life it had lost.

Let us now consider briefly the nature of the Afterworld offered to us by the Platonic myths, especially by that of the Republic. Socrates is represented as ending the long conversation on justice and the nature of the universe, by repeating a story told by a brave man, a native of Pamphylia, who fell in battle and was taken up for burial. Twelve days after the battle, as he lay on his funeral pyre, he came to life again; and we notice that although what follows is called a 'story' $(\mu \bar{\nu} \theta o s)$ at the beginning and once at the end, there is none of the rather anxious disclaiming of literal intention which is made in the other well-known myth also put into the mouth of Socrates in the Phaedo. And however special students of Plato may describe the general purpose of the Platonic myths, no one, I think, can read the long and spirited narrative of this Pamphylian, Er, the son of Armenius, without feeling that Plato meant something by it, and meant it earnestly.

Let us follow then the story of Er. When his soul had gone out of his body, it travelled with many others till they came to a spot of earth on which there were two

[^3]great gaps or openings in the surface, and opposite to these two other openings in heaven. In front sat judges ${ }^{1}$ who passed sentence on each soul as it appeared. The just souls had their sentence pinned upon their breasts and were commanded to ascend into the opening which led heavenwards. The unjust souls were told to turn to the left and find the opening that led into earth. Now while some souls were entering these openings, others were coming out of the second mouth of each pair, returning respectively from Heaven or Hell. The souls that arrived out of the heavenly exit were pure and bright ; those that ascended from the earthly were squalid and dusty. As they arrived at the spot they went off and took up quarters in a certain meadow hard by, just as folk would for a fair. They greeted those in the throng whom they knew and questioned one another about what had happened to them in their several journeys, each journey having lasted a thousand years. The folk who came from below told of dreadful things they had seen and suffered; the other folk spoke of sights of beauty and joy. Every good deed and every evil deed in their previous earthly life had been requited ten times over. Punishment for impiety, for disobedience to parents, and for violence to near relatives was especially severe. Questions were asked about the fate of a certain Ardiaeus the Great, who had been sovereign in a city of Pamphylia a thousand years before, and who had committed abominable crimes. He and others like him, when they came at last to the exit from their journey of punishment, were repulsed by the Gate itself, which uttered a loud bellowing whenever any one of such incurable sinners tried to pass through it; and thereupon certain 'fierce and fiery' men, who understood the meaning of the sound, seized them by the waist and carried them off. In regard to infants whose death followed close upon

[^4]their birth, the Pamphylian gave some particulars ' which' says Plato, rather grimly, 'need not be recorded.'

But what became of the souls after they had reached the meadow? By long and strange astronomical paths they are brought before the three Fates, and from their laps receive lots, the numbers of which determine the order in which they, the souls, shall each make choice of a plan for his next mortal life. They are then brought before a great multitude of such plans, spread out upon the ground; these include every variety of human and animal fortune, health and disease, wealth and poverty, distinction and obscurity, and various combinations. The souls are warned to choose carefully, and told that even the lastcomer will find a great variety of choice. The soul of Orpheus chose the life of a swan, the soul of Ajax chose the life of a lion. On the contrary, the souls of swans and other music-making creatures chose lives of men. The soul of Odysseus, which happened to have drawn the last lot of all, went about for a long time looking for a quiet retired life, and with great trouble he found one which had been thrown aside by the other souls with contempt. Forthwith he chose it gladly, and said he would have done the same if he had had the first lot. After their choosing, the souls are driven into the Plain of Forgetfulness and drink of the river of Not-caring. Everyone must drink a certain quantity of the water, but the foolish drink more, and when they re-appear upon earth, have completely lost all recollection of their previous existence: whereas the wise still retain some fragments of the memory. The Pamphylian himself was prevented from drinking any of the water, and he knew not by what road he reached his body again.

In the myth of the Phaedrus ( $248 \mathrm{E}-249 \mathrm{~A}$ ) we learn that the ordinary soul goes through ten of these millennial terms and is re-incarnated ten times over. If its progress through this somewhat prolonged course of education is at all satisfactory, at the end of each term it will choose
on the whole a better life for next time; and any soul which is so wise as to choose the life of a true philosopher three terms running need never return to earth at all; the rest, unless they are incurably bad, will complete ten periods, and by the end will have probably advanced far enough to pass their final examination and be so released from any necessity of re-entering the body.

Now this elaborate scheme, developed doubtless by more than one ${ }^{1}$ popular form of religious teaching, and used by Plato, though it has obvious lacunae, is far removed from the crudity and ethical insignificance of the Mythological account from which we started. It is noteworthy that Plato does not venture to insert any traditional or historical figures into his picture save Ardiaeus, a typical criminal, and Odysseus the typical Greek hero. Conspicuous also is its mathematical bias, and the keen interest and long labour which Plato bestowed on constructing his astronomical and arithmetical mansions for the soul.

The general colour then of Plato's picture is one of considerable confidence. There is indeed a prudent elasticity about the structure of the story of Er which provides for a variety of cases; but there is no hint (except the curious dismissal of the infants) that the author of the conception felt any grave doubt about its substantial appropriateness to represent a reasonable conception of a future life.

Now what is the effect of this upon the mind of the reader? We feel we have before us a fairly definite and consistent theory, sharply conceived, and challenging enquiry by its very definiteness ; and one need not doubt that this was precisely what Plato intended. In a word, Plato's Myths may instruct us and must set us thinking ; but I doubt if it ever occurred to any reader to believe them. It is, in fact, the great difficulty in all such writing to find any means whereby the assent of the reader's fancy

[^5]to the truth of what he is reading may be secured, even for an hour. The human imagination is a shy creature ; it may be led, but it will not be directed ; and one of the surest ways in which to prevent a reader from attaching credence to any doctrine of things unseen is for the author of the doctrine to assert it with a show of dogmatic conviction. Which of us in reading the opening of Paradise Lost-if I may venture upon a familiar illustration-has not felt repelled by the profession which ends its preface:
> ' That to the beight of this great argument, I may assert Eternal Providence, And justify the ways of God to men'?

Surely the baldness of that pattering line, in which eight colourless words tick off five very dull feet, is somehow connected with the dogmatic confidence ${ }^{1}$ of the temper which suggested it? We all know how Milton's genius soared beyond the limits of his theology; how his imagination was concentrated on the figure of Satan, who thus became in reality the hero of the whole tragedy. But this is at the expense of Milton's own prime intention; in so far as Satan arouses our sympathy, in precisely that proportion ' the ways of God ' are not ' justified.'

Now what does Vergil do? What is the secret of the fascination which the After-world of the Aeneid has laid upon Europe for so many centuries? I believe that part, at least, of the answer is this ; that in spite of the vividness with which particular scenes and figures are pictured, Vergil does succeed all through the story in impressing upon the reader a quite intense consciousness, almost a physical sensation, of mystery. He knows in part and that part he prophesies with golden clearness; but he makes us everywhere conscious of darkness beyond and around. The poet, in fact, comes nearer home to us by

[^6]confessing that like the rest of men, indeed far more than the rest, he is conscious of the vastness of his ignorance. The object of this paper is to trace this essential (but by no means fully realised) characteristic by a study of the structure of the Sixth Book of the Aeneid.

The climax of the story, of course, is the Vision of Anchises, which reveals not merely the future destiny of Rome, and the mission of the Roman Empire to ' establish the fashion of peace' on earth, but the whole divine scheme of Creation of which that destiny and that mission were to be part. But this revelation, although it constitutes the purpose of the whole Book, occupies only the last third of its extent. The first third (11. $\mathrm{I}-272$ ) is taken up with the approach to Avernus, and the second with the journey through the Shades, which ends when Anchises is found (at 1. 679).

Notice now the different incidents of the Approach. We begin with pictures carved in gold upon the doors of a Temple, which is the first thing Aeneas sees in the new land, pictures telling tragic stories from Crete. The reason for this beginning has not yet, I think, been pointed out. Norden (p. 121) can do nothing but bid us regard it as a 'stately digression' with a 'disturbing effect.' In this twentieth century, thanks to the sharp spades of Sir Arthur Evans, we have learnt that Crete was in fact the home of the earliest civilisation of Europe, many centuries before the fall of Troy. But Vergil knew it better than we ever shall through a rich store of tradition ; and if those pictures from Minoan Crete are deliberately planted by him in the forefront of this Book, is it credible that they mean nothing? Surely they suggest, if nothing else, how vast was that majority of the human race now passed into the darkness which the Book is to explore. And if they bid the reader think how noble were the artists who had wrought in that vanished age, how rich the legacy which intercourse with them had left to Italian soil as well as to Greek, they lead him
also to wonder in what region these creative souls now subsist. In the lines which depict the last of the figures, Daedalus mourning for his son, we hear clearly the positive strain of filial affection which is the motive of the hero's journey; and the rich, tragic harmony that unites the scenes carved upon the marble entrance, is a fitting and stately overture to Vergil's Dream of the Dead.

Then follows the weird madness of the Sibyl, her summons to Aeneas, his entreaties, and her two replies, the first dark with prophecies of evil, the second with her mysterious demand that he shall find some Golden Bough, the only passport into Hell and out of it again. But her gloomy response ends with the announcement that one of the companions of Aeneas has suddenly met his death in that very hour, and that special ceremonies are needed to honour him and to remove the pollution of the survivors before Aeneas can enter upon his quest. This utterance is explained when Aeneas returns to the camp, by the discovery that Misenus, who was a player on the horn, has fallen from a rock on which he had seated himself to play, and been drowned in the sea beneath. The first duty, therefore, of Aeneas, is to build a pyre and burn his friend's body; and the Trojans turn to the ' ancient forest' to hew wood for that purpose. Naturally enough (as Vergil is careful to suggest) Aeneas conceives the wish that the Golden Bough which he is in want of, might discover itself in the forest. His prayer is granted, and a pair of his mother's doves alight upon a tree 'whence through the boughs shone the strange half-breathing gleam of gold.'

Now this incident has brought us to one of many crucial points in the structure of the plot, which rightly studied reveal, I believe, some of the most intimate secrets of Vergil's motive, but which have long, if not always, been thought to involve serious difficulty.

Why is this incident of the death of Misenus introduced at the beginning of the book and so intimately interwoven
with the narrative? The question seems to demand an answer even more urgently when we find, a hundred lines further on, that another friend of Aeneas, namely Palinurus, was also lying unburied at the time (having fallen overboard from the ship of Aeneas just before the end of the voyage to Italy). And the critics ask why must two friends of Aeneas be represented as having died; why could not Vergil be content to mention the death of one and one only, as we saw was done by Homer in mentioning the ghost of Elpenor? Now I do not think this question usually troubles a reader; for Vergil's instinct in thus arranging his plot is sound and natural, and I believe we can discover his reasons.

But we may be grateful to the critics who raise the question, though they themselves are content with what, I confess, seems to me a very poor fraction of an answer, quite true so far as it goes. They are content to reply that according to the local traditions both Cape Misenum and Cape Palinurus owed their names to two famous comrades of Aeneas who had perished upon them respectively. And this double tradition, so we are told, Vergil felt bound to reproduce in his poem, even at the cost of some difficulty. Now it is perfectly true that Vergil might have felt that he had failed, that he had been guilty of what a modern writer would call violence to history, if he had done nothing to give such strong local traditions an appropriate place in his story. But to suppose that such a circumstance would have led Vergil to adopt what he felt to be a burden to the narrative at one of its most critical points is to show very little knowledge both of the extraordinary resourcefulness of Vergil's imagination and of the keen and exacting criticism with which he measured his own work. One of the authorities ${ }^{1}$ from whom we learn the tradition of the promontories of Palinurus and Misenum tells us also, with equal seriousness, that the islet of Leucasia was named after a niece of

[^7]Aeneas, who was kind enough to provide it a name by dying thereabouts. Vergil has not a word about Leucasia; but some of us at least will be quite sure that if it had suited his poetic purpose we should have had an equally circumstantial account of her death ; and that the proper resting-place might have been given to her, if need were, as briefly and simply as to Caieta in the first four lines of Book VII.

The reference, therefore, to the traditional basis for the double story, though instructive, gives only an inadequate answer to the question, why Vergil should have designed his story in this particular way? The real answer lies deeper.

The two incidents of Misenus and Palinurus serve quite different poetical ends. Let us ask first about Misenus, not what was the external traditional basis for Vergil's introduction of his death, but what impression upon the reader is made by the tragic surprise of its first announcement from the Sibyl's lips, by the intimate association of the funeral rites with the discovery of the Golden Bough and by the detailed (211-235) and extraordinarily solemn picture of the ceremony at the pyre in which both Aeneas and another Trojan hero are mentioned by name as taking part.

Is it not clear, I venture to ask, even to the schoolboy or a reader who has given no thought to questions of poetical construction, that the dark hour which we spend in imagination round the body of Misenus is intimately connected with the purpose of the Book which describes the world of the dead? In whose company should we make that voyage so well ${ }^{1}$ as in that of a man whose spirit

[^8]has but now left his body? Is there ever a moment when the reality of the after-world comes so near to any one of us and has such penetrating force as when he has lost suddenly some friend who but the day before was in the full enjoyment of life? Vergil knew surely, and shows that he knew, that there could be no more persuasive and at the same time no truer means of enlisting the reader's imagination in a journey into the Unseen than to represent it as made the moment after the death of a man struck down in the midst of life. That is why Misenus' death is caused by so strange an accident; that is why he is playing upon his horn, his dearest pursuit, at the moment when death takes him ; that is why the rites at his pyre are so rich and so prolonged. With the spirit of Misenus almost visibly moving into Hades, we feel that the path thither must be nearer and easier and more real than we dreamt.

Such, I am convinced, is the effect of this incident on every reader to whom life has brought such an experience; and even the school-boy feels at once the appropriateness of the funeral ceremony to the point of the story at which it is attached; and the especial beauty of the way in which Vergil links so closely the discovery of the Golden Bough with the duty which Aeneas undertakes, at the cost of much labour and delay, to provide his friend with noble obsequies.

Here then the approach ends. Aeneas has buried his friend and found the Golden Bough, and now he begins his journey. Still we shall trace the same power of Vergil's imagination in leading us step by step through what is easy of belief to what is more and more wonderful.

As the shadows begin to gather round Aeneas at the mouth of Avernus, the poet invokes in sonorous lines 'the gods who have empire over ghosts, the silent shades,

[^9]Chaos and Phlegethon, a country full of night's wide silence.' Then the travellers start : 'Obscure they went through the shadow with only night for their shelter, through the empty halls of Dis and his unbodied realms; just as in a journey through the forests with a doubtful moon and grudging light when Jove has buried the sky in shadow, and sombre night has stolen all the colour from the world ${ }^{1}$.' Notice, as Dante did, the word obscurus, and the image of walking through the forests at night. What does this twilight mean ? Surely it is the same as the selva oscura ${ }^{2}$ which Dante borrowed from Vergil to be the scene of his own vision. It represents the difficulty of any effort to conceive the Unseen. It is the veil that hides that other world from ours. Vergil warns his readers at the outset that they are moving in the shadows, that they are speaking of 'things only heard,' trying 'to reveal a world drowned in darkness and depths of earth.'

The same gradual progress from the familiar and concrete into the heart of the invisible is continued in what follows. First we meet mere incorporeal abstrac-tions-Care, Disease, Age, Fear, Famine, Want, Death, Toil, Sleep, Joy-in-evil ${ }^{3}$, War, and the Avenging Furies, and mad Civil Strife ; then the Elm-tree which gave a home to false dreams and fabulous monsters-Centaurs and Chimeras, on which Aeneas draws his sword but which he cannot touch-they are both more credible and more terrible so. Then, and not before, we meet the unburied ghosts who must wander for 100 years.

Now observe the order in which the different ghosts appear to Aeneas. First Palinurus who had been drowned only four days before; then Dido whom he had left when

> Ibant obscuri sola sub nocte per umbram Perque domos Ditis uacuas et inania regna; Quale per incertam lunam sub luce maligna Est iter in siluis ubi caellum condidit umbra Iuppiter, et rebus nox abstulit atra colorem.

[^10]3 If I am right in taking mentis to suggest thinking rather than desiring.
he began that voyage many months ago ${ }^{1}$; and then Deiphobus, the son of Priam, with the other heroes of the Trojan War who had perished seven years before Dido. These three meet Aeneas in the inverse order to that in which they have formerly met us in the narrative. It is not so hard to believe that a man who died yesterday should meet you again ; so we proceed to those who died six months ago ; and then to those who had passed away long before. The increase in strangeness is gradual, both to Aeneas and to us.

We are now in a position to answer the riddle which we noticed in discussing the death of Misenus. Its essential difference from that of Palinurus can be perceived at once if we try to interchange the incidents. Suppose that Vergil, as some of our wise commentators suggest that he ought to have done, had treated the death of Palinurus, not that of Misenus, as being that which called for funeral ceremonies before he could begin his journey to the under-world. In the first place, we may answer such critics according to their own somewhat external methods; Aeneas and his party would have had to make a voyage of more than forty miles as the crow flies far across and beyond the Bay of Naples, in order to reach Cape Palinurus, if the funeral rites were to be celebrated there. So that even on the mere ground of geography Palinurus would not do for the purposes of the funeral ceremony, if it was to be one of the preliminaries to Aeneas' descent ; whereas Misenus does very well, since Cape Misenum was close to Lake Avernus and the Sibyl's cave at Cumae. But there is a more interesting answer. Palinurus would then have been duly buried, or rather burnt, and he could not meet Aeneas at the threshold of the under-world, but must have been seen, if seen at all, somewhere in the process of purification which is described near the end of

[^11]the book. Could then Misenus have taken his place, that is to say, could any other follower of Aeneas who happened to have died at the time be represented as meeting Aeneas on the threshold of the under-world because he had not been buried ? The answer clearly is No, unless Aeneas had openly and flagrantly neglected his duty to a dead friend by leaving him unburied, although he had died in his camp. Or if it be suggested that Vergil might have contrived a narrative so as to make Misenus die like Palinurus without his body being immediately discovered, then indeed, if Palinurus was to be drowned at all in Book V. we should have had a doubling of the narrative far more awkward and far less natural than the actual combination which Vergil chose. We conclude that if some unburied friend was to meet Aeneas on the threshold of the under-world, as Elpenor met Odysseus, and was to beg Aeneas for burial as Elpenor begged Odysseus, his death must be represented as having come about in some form which made funeral rites impossible. Could any form of death be more appropriate for such a point in the story than that of a sailor who fell over-board? Notice further on the one hand that such a death (and this is a point of some importance, since it has been overlooked even in Norden's careful discussion of the question) was not one which in ancient estimation would cause any pollution to the survivors, since the body was not among them ; and on the other, that since it had happened at least four days (l. 356) before Aeneas approached the Sibyl, it would by that time have taken its place in their minds as one of the sorrows of the voyage which was now over, and in any case could not have been made the subject of the Sibyl's moving declaration. Finally and chiefly, if the ghost of Palinurus were omitted, his story would be omitted too, and with it one of the most simple and convincing links between this Book and the last, between the under-world, and the concrete, recent experience of Aeneas among the living.

After leaving Palinurus they hold a brief colloquy with that grim ferryman Charon in his leaky boat, 'the god in rude and green old age,' and pass to threeheaded barking Cerberus, with the serpents round his neck, whom the Sibyl calms by a witch's proper weapon, a sop of drugged food. The picture of Charon and Cerberus is not untouched with humour ; the only ${ }^{1}$ trace of humour in the Book (for Vergil has none of the grim mirth of Dante's devils, who were bred in the Dark Ages, rejoicing in their cruelty). It seems as though we had here the last flicker of concrete reality; Charon and Cerberus, quaint but substantial figures, are just believable because they come at the point where we finally leave the solid living world behind us and enter Limbo. 'Forthwith are heard voices and mighty wailing, and ghosts of infants crying on the threshold.'

We come now to the vexed question of the different classes of the dead. It is here that according to midVictorian scholars (Conington in. p. 423), Vergil has most grievously failed, by attempting to combine a theological scheme with historical and mythological figures. That he has made the combination is clear. What is the result ? Let me reproduce Norden's quite accurate analysis of the classes of Souls.
I. The Unburied-outside Acheron.
II. The buried.
A. In the Lugentes Campi :
I. infants:
2. the wrongly condemned :
3. those who took their own lives though innocent of crime :
4. victims of love, like Dido :
5. warriors slain in war, like Deiphobus.
B. In Tartarus: incurable criminals who cannot come out.
C. At Lethe : ordinary souls, waiting or in course of purification.
D. In Elysium : those few whose purification is complete.

Note first that the last three classes are perfectly clear and distinct; nos pauci (1.744) are the few who reach ${ }^{1}$ Unless facilis descensus Auerno is to be so counted.

Elysium almost at once, and quite separate from the has omnes (1.748) who have to undergo re-birth after 1000 years. Conington's confusions here are as great as the astonishing ignorance ${ }^{1}$ shown in his note on 1. 329 about the 100 years' limit. As Norden justly contends, Vergil has combined the mythological picture (such as one finds in Homer) with the more philosophical (as in Plato) with marvellous skill. But so far as I know, no one has pointed out what Vergil meant by giving such scope to his Class II A, the tenants of the Lugentes Campi.

Even after the careful study which Norden has given to the Souls in Limbo there remains, I venture to think, still something to add. In his Introduction Norden makes it clear that Vergil took over the five different categories of these souls from an existing popular doctrine, of which traces are preserved to us in Lucian, Macrobius and Tertullian ${ }^{2}$; but that Vergil has considerably extended one of the classes, namely, those who died through love. This he has expanded to include all who came to an untimely death in which love was a cause, no matter in what way, by their own hand or that of others. Norden has also made it clear that the reason why these groups were united by the popular doctrine and combined with the átaфo was the purely formal one, that they had not lived to the end of their natural span of life. This reason Vergil nowhere gives. On the contrary, he includes among the heroes of mythology whom Aeneas encounters in this region many who had been dead far more than the number of years required to make their span equal to the normal. Vergil was not ignorant of this normal period roundly represented by 100 years, for he himself assigns it to the souls of the unburied : but in Limbo he deliberately omits it.

[^12]Now I venture to think that this silence is eloquent. Vergil seizes on certain categories of character and fortune familiar to popular thought, and separates them from the three classes of souls to which he afterwards allots a particular fate, perpetual punishment or perpetual bliss or the ordinary re-birth. He does not accept the popular doctrine-which was that a place in Limbo was only retained until 100 years were completed from the soul's birth. What does he mean by his silence? Exactly what deliberate silence always means. 'Not without a judge,' says Vergil, ' not without allotment, are these abodes granted to them. It is the task of Minos to learn their lives and the charges brought against them.' So far all very proper and re-assuring. Minos has a beautiful romantic name--he may well be a just judge. How does he decide? What is the lot that is given to the souls? Vergil is very careful not to say. This perhaps is as clear an example of Vergil's method as we can find ${ }^{1}$. Before he brings his reader face to face with the picture of the future destinies of the wicked and the good, and the process of purification which the good go through, he carefully puts out of the way the souls of those of whom he confesses he does not know the end. These hard cases would make bad law.

Space will not suffer me to linger upon the remarkable characteristics of the picture of Roman history drawn by Anchises; on the doubtful praise of Pompey and Julius Caesar, the complete silence as to some of the great names. Nor upon the picture of the Roman Peace, which is represented as the goal of the Creator's intention in suffering Rome to rise from the ashes of Troy. But I desire in conclusion to draw attention to two things at the end of the Book, The Lament for Marcellus and The Ivory Gate, the significance of which has not yet, I am

[^13]convinced, been fully realised. Let us take the Ivory Gate first.

Vergil mentions two gates of Sleep which lead out of the under-world-a gate of horn by which true dreams have exit, the other a gate 'shining perfectly wrought with glistening ivory' but sending out false dreams. Now Aeneas and the Sibyl are sent out by the Ivory Gate, and many serious commentators have been sorely vexed to know why Vergil chose it. The best reason of a formal kind that has been suggested, and one which, for what it is worth, may well be true, is that adopted by Norden and first pointed out by an American scholar, Professor Everett (C. R. xiv. p. 153). False dreams, in the ancient belief which Vergil follows ${ }^{1}$, come before midnight ; so that the departure by the gate of Ivory indicates that Aeneas departed from the under-world before midnight just as he entered it at dawn. Dante likewise spent twenty-four hours in $\mathrm{Hell}^{2}$. I have no doubt that Vergil intended this consequence; but surely it would be taking a long way round if the meaning were merely to express the particular hour. We still ask why he must choose one of the dream gates at all? Why should dreams in any shape be mentioned at this point? Surely this is a final instance of the gentle agnostic temper which we have been tracing all through. It is exactly like the lines in In Memoriam:

> 'So runs my dream: but what am I ?
> An infant crying in the night, An infant crying for the light, And with no language but a cry.,

Vergil has shaped his conception of the future world into a magnificent picture ; but he is careful to remind us at the end that it is a dream, and a dream attested not by the eye but only by spoken tradition ${ }^{3}$-the Gate of

[^14]Horn representing the knowledge that comes through the horny tissue of the eye, the Gate of Ivory that which comes merely through speech, by the mouth with its ivory gates of teeth.

A not dissimilar example of the timidity of a great imaginative builder when he contemplates his own structure may be found in the ending of the famous speech of Prospero in The Tempest, where after a display of his magical power which can compel the elements and the fairies and even the deities of the place, Prospero addresses Ferdinand :

> 'Be cheerful, Sir, Our revels now are ended.'

In lines hardly needing quotation he compares the 'great globe itself' with its cloud-capped towers to the 'insubstantial pageant' which has just melted awayending with the great declaration:
' We are such stuff
As dreams are made of, and our little life Is rounded with a sleep.'

## What comes next ?

'Sir, I am vexed;
Bear with my weakness; my old brain is troubled; Be not disturbed with my infirmity.'
Why is Prospero 'troubled'? Why speak of his 'weakness,' his 'old brain,' his 'infirmity'? Surely because Shakespeare is here saying what Vergil does by his image of the Ivory gate. 'I have dared to draw a picture of the Divine Providence in the person of Prospero ; and I pray you to forgive me for my daring, and not to think I speak with confidence unbefitting human lips.'

Now for a few minutes let us turn to what has always seemed to me the extraordinary ending which Vergil has made to his triumphal celebration of the greatness of the

[^15]Roman Empire. Would it have occurred, I venture to ask, to any other poet that has ever lived, to end the most exalted passage of his greatest book, a tribute to the Emperor of the world, a paean over the service that his nation had rendered to mankind, by dwelling on the bitterest human sorrow which the Emperor had yet undergone, and the most crushing disappointment which he had ever to face in his imperial plans? That, we know, was what the death of Marcellus meant to Augustus, and this is the theme which Vergil chooses to set, and set in lines of poignant feeling, at the end of his Vision. No poet but Vergil could have either conceived or dared such an ending. Horace never ventured to write a line upon Marcellus' death. What does it mean, this sudden gust of tragedy, when the sky at last seemed clear? Why must our thoughts be turned, at the very crown of the epic history, to the failure of human hopes, the cruelty of human destiny?

The answer, I believe, is the same as that which Professor A. C. Bradley ${ }^{1}$ has given to the question why, at the end of King Lear, the gloom of the story is made so deep. Lear himself of course must die, so must his faithful companions Gloster and the fool; so must the guilty Edmund, Goneril, Regan ; but why the innocent Cordelia? Why is the truth discovered just too late to save her? In order, says Professor Bradley, to force us into the very heart and blackness of the mystery; to make it so appalling that the spirit of the reader will rise up perforce and cry :-' This is not the end, this cannot be the end although it is all that we here can see.' Just so does Vergil cry to his own generation and to every generation that has followed, 'Not here, not now, not through me, but in the far hereafter, must come the light in which the shadows flee away.'

And if amid the shadows there is one golden branch to which we may trust, 'seek it,' Vergil seems to say,
${ }^{1}$ Shakespearean Tragedy, p. 252.
' in the eternal worth, the immortal strength of human affection.' Again and again in the dark world through which Vergil guides us we are startled with the vividness with which this note is heard. Just as Dante, even in Hell, could not separate Francesca from her Paolo, just as he declares ${ }^{1}$ that the flame of love, burning in the fervent prayers of the living for the dead, has power to fulfil in one short moment 'all the toils' that the sinner should properly perform in Purgatory ; so does Vergil re-unite Dido with her first lover ; so he fills the fields of Elysium with souls that have won the loving memory of others ; so he illumines that purer and larger air with the joy of the meeting between Aeneas and his father.

And so in this final lament for Marcellus he gives us not once but three or four times the intimation, quite clear, I think, to those who know Vergil's way, that the death of that bright boy was not the end of his story. His career in this visible world indeed has ceased before the fatal bar ; but somehow, Vergil hints to us, somewhere he shall be, not should be or would be, but shall be a true Marcellus, shall, somehow, fulfil the promise of his name. And the flowers that are cast upon his head are purple lilies, that is, the (ancient) hyacinth, the flowers of Spring, always the types of Resurrection ${ }^{2}$.

And what is the last word with which Anchises parts from the Vision? It is placed conspicuously by itself in a single foot at the beginning of a line, and it is one of two only examples, if I mistake not, of a long speech so ending in all the Aeneid-the other is where Evander's farewell to Pallas is broken off because he faints at the thought that his son may never return. And further this word is placed there by a special re-construction of the

[^16]previous line which we even yet may trace. Few, I think, who are familiar with Vergil's metrical technique and who know how prevailingly a long speech or paragraph ends with a line containing not one but two dactyls before the final spondee will doubt that the speech of Anchises originally ended:

## Accumulem donis et munere fungar inani.

But the words his saltem were inserted: why? To avoid the sound of completeness, to break off the rhythm and leave the reader unsatisfied ; to set down a question, not a conclusion ; to admit, but circumvent, the hopeless stone wall of the epithet inani. Not inani, but munere ends the prophecy; if a gift is made, there must exist somewhere, somehow, a soul to receive it. And thus the last word of the Vision of Anchises is a poetic, wistful plea that the very bitterness of mortality is itself a promise of immortal life.

R. S. Conway.

Manchester, April 1913.

## A NEW CLUE TO THE ORDER OF THE PLATONIC DIALOGUES

1. The aim of this paper is to propose a clue, hitherto, so far as the writer knows, untried, which may be useful in tracing the logical, and, therefore, within some degree of approximation, the chronological order of a considerable number of the Platonic dialogues. Its necessary brevity limits it to indicating this clue rather than supporting it by an array of arguments and evidences. Though the clue itself may be valid, so far as it goes, its application requires circumspection, and has not been attempted here without considerable diffidence. Competent readers, interested in the matter, may apply it differently for themselves.

Discussions as to the authenticity of particular dialogues have been avoided. The Erastae, Hipparchus, Menexenus, Epinomis, Timaeus Locrus, Axiochus, and some other works named in the list given at the end of the Zuirich edition, have however been ignored as un-Platonic. The Critics, a mere fragment, falls outside the scope of the paper.

The fundamental hypothesis here adopted is that Plato's interest, like his master's, was ethical ; that he believed $\epsilon \dot{\dot{\delta} \alpha} \alpha \mu$ мvía to rest on $\dot{\alpha} \rho \epsilon \tau \dot{\eta}$ as its condition ; and that the motive of his writings throughout was the endeavour to make the conceptions of $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$ and its coefficients comprehensible, in order that its attainment might be made possible and practicable. Hence even a dialogue like the Theaetetus, in which $\dot{\epsilon} \pi \iota \sigma \tau \eta \mu \eta$, or like
the Parmenides, in which the object of $\epsilon \pi \iota \sigma \tau \eta \eta^{\prime} \mu$, appears to be the sole matter of discussion, ought to be considered ultimately from the ethical point of view.

Plato began his speculations as an alummus of Socrates. The Socratic position was at first the position of Plato. From this position, which may be described as one of hard intellectualism, he advanced by the use of the ${ }_{\epsilon} \quad \lambda \epsilon \gamma \chi \circ$, aided by observation of the facts of life and conduct, to another position in which he differs little, in certain essentials, from his pupil Aristotle.
2. Socrates, as we learn from Aristotle, whose testimony is supported by Xenophon, denied that it is possible for one who knows what is right to do at the same time what is wrong ${ }^{1}$. In fact, $\alpha^{\prime} \kappa \rho \sigma^{i} \dot{\alpha}$ is, or arises from, ignorance. Virtue, in general, is knowledge, and the several virtues, e.g., courage, temperance, justice, are $\phi \rho o \nu \dot{\eta} \sigma \epsilon \iota s$, or $\lambda o ́ \gamma o \iota$, or $\epsilon \in \pi \iota \tau \bar{\eta} \mu a \iota^{2}$. According to Xenophon, Socrates declared $\delta \iota \kappa \alpha \iota \sigma u ́ \nu \eta$ and every other form of $\alpha^{\prime} \rho \epsilon \tau \eta^{\prime}$ to be $\sigma \circ \phi_{i ́ a}$ or $\epsilon \pi \iota \sigma \tau \eta \eta^{\prime} \mu \eta$. Tò $\delta_{i ́ \kappa \alpha \iota o \nu^{3}}$ was simply to vó $\mu \mu o \nu$, and knowledge of the latter carried the former with it in practice. Vice, in general, is ignorance; the worst form of which is ignorance of oneself and of one's powers, with false belief that one knows what one does not know, or can do what one cannot do. The extreme form of such ignorance Socrates called $\mu \alpha \nu^{\prime} \alpha^{4}$. Were one to ask Socrates-' knowledge or ignorance of what?' he would reply 'of the áraӨóv,' i.e., of the ' $\omega \phi$ '́ $\lambda \iota \mu о \nu$.' As everyone desires this latter, it might be assumed, he thought, that perfect knowledge of it would be perfect virtue, and ignorance of it vice, in the degree in which it prevailed.
3. The plausibility of this position and its attractiveness for Plato are not very difficult to understand.

[^17]The doctrine that $\dot{\alpha} \rho \epsilon \tau \dot{\eta}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$ was, for a typical Hellene of Plato's time, to a very great extent, literally true in the ordinary acceptation of the terms. 'A $\rho \in \tau i$ in ordinary parlance connoted excellence in any mode of activity in which men compete with one another. It could be, and often was, attributed to persons who were not (in our sense of the word) 'virtuous.' 'E $\pi \iota \sigma \tau \eta \mu \eta$, on the other hand (with its synonyms, nouns or verbs), as commonly used signified not theoretic general know-ledge-' the knowledge that'-but knowledge of the practical kind: knowledge of concrete ends and the means to accomplish them-knowledge 'how to do' things. Such is its meaning almost invariably in the conversations ascribed to Socrates by Xenophon. Hence, given the desirability of the end as $\omega^{\prime} \phi \epsilon \hat{\epsilon}^{\prime} \iota \mu \rho \nu$, with $\epsilon \pi \iota \sigma \tau \dot{\eta} \mu \eta$ as the knowledge how to bring the end about, the definition of $\alpha \rho \epsilon \tau \eta \dot{\eta}$ as $\epsilon \pi \iota \sigma \tau \eta \dot{\eta} \mu$ might pass easily enough, at least in ordinary Greek circles, as a basis of ethical theory.

The difficulty of accepting it begins when $\alpha \rho \epsilon \tau \eta$ is considered not merely as excellence, but as moral excel-lence-as a characteristic of persons who from moral motives resist temptations to do acts, e.g., of injustice or cowardice or intemperance. It may be granted that knowledge of the means to achieve the object of one's ambition is, or confers, the $\alpha \rho \epsilon \tau \dot{\eta}$ of the ambitious manhis success, e.g., as a statesman or orator. Can it be granted, likewise, that knowledge of the means to do the things which imply courage, or temperance, or justice is equivalent to doing them? Socrates answered this question also in the affirmative.

There are in the Memorabilia two passages ${ }^{1}$ in which Xenophon represents Socrates as arguing for his theory that $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}=\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$, and in which he employs the latter term to signify knowledge 'that,' rather than knowledge 'how to do' something. In conversation with Euthydemus he asks whether $\mu \dot{\alpha} \theta \eta \sigma \iota s$ and $\dot{\epsilon} \pi \iota \sigma \tau \eta \dot{\eta} \mu \tau o u ̄ \delta \iota \kappa \alpha \dot{o}$

[^18]$\mu \dot{\alpha} \theta \eta \sigma \iota s$ and $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta \tau \hat{\omega} \nu \quad \gamma \rho a \mu \mu \dot{\alpha} \tau \omega \nu$, and, being answered affirmatively, uses the answer to prove that, as he who violates the rules of 'grammar' knowingly and wilfully is a better grammarian than one who does so involuntarily and from ignorance, so he who violates justice purposely and wittingly is more just than one who does so from ignorance. The former knows what justice is and the latter does not. From this he generalises and shows to the discomfiture of Euthydemus that the man who
 is the just man, while he who knows them not is the $\alpha^{\alpha} \nu \delta \rho a \pi o \delta \omega \dot{\partial} \eta \mathrm{~s}$. In this argument (which Plato in the Hippias Minor and Menon uses to illustrate a difficulty in the Socratic position), $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$ is treated as a mere $\delta \dot{\nu} \nu \alpha \mu \iota s$, or faculty, of conceiving and effecting ends without regard to their moral nature; while the moral character of the person, as a systematic habit of acting with a view to certain deliberately chosen ends, is slurred altogether.

Coming to two particular virtues, the one in relation to the gods, the other in relation to men, Socrates argues that he 'who knows how' to honour the gods according to their prescribed ritual is $\epsilon \dot{v} \sigma \epsilon \beta$ クn's, or 'pious'; while 'he who knows' how to deal with men ( $\chi \rho \hat{\eta} \sigma \theta a \iota$ ${ }_{\alpha}^{\alpha} \nu \theta \rho \omega$ '́toos) as human laws prescribe is 'just ${ }^{1}$.' ' Is it to be imagined' (he asks, discussing justice) 'that one can obey the laws without knowing what these ordain?' ' No.' Again, 'Do any men, knowing what they ought to do, suppose that they ought not to do this?' 'No.' Again, 'Do you know' of any who do things other than those which they suppose they ought to do?' 'No.' From these admissions Socrates concludes (apparently to his satisfaction and without criticism, at all events, from Xenophon) that the 'just' may be defined as 'those who know what is lawful in human intercourse ' ( $\tau \dot{\alpha} \pi \epsilon \rho i$


[^19]
## ORDER OF THE PLATONIC DIALOGUES 3I

To us, however, it is plain that these conclusions follow only on the assumptions (a) that the knowledge how to do the things prescribed by the divine ritual, or by the laws of the State, carries with it also the motive for doing them; and (b) that this motive is strong enough to overcome the motives which usually prompt or tempt men to do the contrary. Had the questions put by Socrates included the further question: 'Do you suppose that any persons, knowing what the laws prescribe, disobey the laws ?,' these illicit assumptions, and the precariousness or falsehood of the conclusions depending on them, would have been exposed. How is it that this pertinent question was not asked by the Xenophontean Socrates? or its omission not noticed by Xenophon? One would think it ought to have been sufficiently obvious that a man may 'know' the laws of $\delta \iota \kappa \alpha \iota o \sigma \dot{v} \nu \eta$ and $\epsilon^{\prime} \sigma^{\prime} \dot{\epsilon} \beta \epsilon \iota \alpha$ as well as he knows the letters of the alphabet, and yet violate these laws habitually when temptation and opportunity present themselves.
4. The Socratic definition of $\dot{\alpha} \rho \in \tau \eta^{\prime}$ as $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$ was a mixture of truth and falsehood; or rather it was true from one, false from another, of two very different standpoints. To probe its meaning and value became the work of Plato's life. The following circumstances, however, tended to make him (as well as Xenophon and other contemporaries) blind at first to what was misleading in its import.
(a) Socrates and his contemporaries participated in an Aufklärung of intellectualism. The conception of $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$, or cognition, was that which dominated their schools; the conception of feeling ${ }^{1}$ (whether organic, as feeling of hunger, or emotion, as feeling of anger, or simply pleasure and pain) as a psychological element had as yet received no separate attention. In fact there was in Greek no single word for feeling as distinct from perception. Aír $\theta \eta \sigma$ ss had to serve for both. If, however,

[^20]feeling in general was neglected, there is little reason to wonder that the moral feeling, as a co-efficient of moral action or of $\dot{\alpha} \rho \epsilon \tau \dot{\eta}$, was also neglected; or that, being neglected, it could be illicitly imported without detection by Socrates and his hearers into the arguments by which he strove to show that $\alpha^{\prime} \rho \epsilon \tau \eta^{\prime}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$.
(b) Socrates identified ${ }^{1}$ тó $\delta$ íксао with тò vó $\mu \mu о \nu$. The laws of the State were for him the result of a covenant by which the citizens agreed among themselves as to the things which they ought or ought not to do ${ }^{2}$. Thus the conception of $\tau \dot{o}$ vóulцov, and therefore of tò ס'ккaьv, ab initio imports the idea of obligation, i.e., of legal or 'external' obligation; since the law of the State implies a power to compel the obedience of the citizens. Now, the word $\delta \epsilon \hat{\imath}^{3}$ which expressed legal expressed also moral obligation ; and wherever the former was acknowledged to exist it was easy to assume the latter. The difference between these two kinds of obligation, as feelings (i.e., as subjectively regarded), and the equivoque between the one and the other easily escaped observation.
(c) The Greeks of Socrates' time did not occupy themselves with questions as to the moral motive of actions. If actions were performed at the prompting of
 seemed superfluous to ask why the agent performed them. As well ask why a hungry animal eats. When, on the other nand, an action was performed, not at the prompting of $\dot{\epsilon} \pi i \theta v \mu i a$, or for the sake of any nameable $\dot{\eta} \delta \dot{v}$ or $\omega \dot{\phi} \notin \dot{\lambda} \lambda \mu о \nu$, but because it was $\kappa \alpha \lambda o ́ \nu$ or its omission $\alpha i \sigma \chi \rho o ́ v$, it was almost equally superfloous to enquire after the moral motive of the agent. To the Greek mind, virtue, as such, clothed itself not with the stern authority of law, but with the alluring charm of the pleasant or the

[^21] Fate.
beautiful. Thus while Greek moral speculation directed its enquiries to the objective nature of the good, or of the beautiful, the nature of the moral motive, i.e., the subjective response of feeling to the solicitation of the good or beautiful, was, for the most part, left outside the scope of the enquiry.
(a) These general considerations go far to explain the omission on the part of Socrates' hearers to put the critical question above referred to. There is, however, a particular consideration also which may help us to understand the success of Socrates in convincing, not only Xenophon and others, but even the youthful Plato, despite his genius for criticism, that $\dot{\alpha}^{\prime} \rho \epsilon \tau \eta^{\prime}$ is $\epsilon \pi \pi \sigma \tau \eta^{\prime} \mu \eta$. The life and character of Socrates as a man were a sort of objectlesson in confirmation of his doctrine. In Socrates his disciples beheld one for whom to know the right (by whatever criteria) was to do the right. No pleasure could seduce, no danger deter him from the line of duty. His practical sagacity, his insight into the ways of men and their affairs, joined with his firmness in resisting the influences of mere pleasure and pain, fear and hope, not only rendered him an exemplar of wise conduct, but procured for him pontifical authority as an exponent of its principles. He seemed the incarnation of rationality, a living and effective testimony to the truth of his doctrine. When Socrates said ${ }^{1}$ that 'fear of death is ignorance' his disciples naturally believed him. That the respect of his disciples for Socrates had risen to a height of veneration, which, in a less enlightened city than Athens, might easily have resulted in the foundation of a cult, most readers of the Phaedo will be inclined to acknowledge.
5. For Plato, who had at heart the theory that man's єúdaıuovía lies in or through $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$, and destined himself to missionary effort ${ }^{2}$, the Socratic doctrine, which

1 Apology 29 A.
2 Many passages in Plato's dialogues show that he would agree with Aristotle, who
 $\gamma \in \nu \dot{\omega} \mu \in \theta a$.
apparently simplified $\alpha \rho \epsilon \tau \eta$ by reducing it to $\dot{\epsilon} \pi \iota \sigma \tau i \mu \eta$, must have had no ordinary attraction. If $\dot{\alpha} \rho \epsilon \tau \eta \dot{\eta}=\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$, why should it not be possible to propagate $\dot{c}^{\rho} \rho \epsilon \tau n^{\prime}$ as easily as $\dot{\eta} \gamma \rho \alpha \mu \mu \alpha \tau \iota \kappa \dot{\eta}$ or $\dot{\eta} \kappa \iota \theta \alpha \rho \iota \sigma \tau \iota \kappa \dot{\eta}$; or any other art? When Socrates preached this doctrine, and exemplified it in his own life and conduct, and even in his death, what wonder if to Plato at first it seemed not only to be true but to comprise the whole gospel of ethical truth ?
6. From this happy dream of a simplified Ethics Plato was destined to awake. The doctrines which his last works announce, without actually contradicting that of Socrates, differ from it widely, not only as regards the meanings of $\dot{\alpha} \rho \epsilon \tau \dot{\eta}$ and $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$ but also as to the dynamic relation between them, and the mode in which d $\rho \in \tau \eta^{\prime}$ is to be imparted by education.

The grounds on which Plato gradually abandoned his original naive acquiescence in the position of Socrates were probably the following:-
(a) His great purpose being to teach, and therefore ${ }^{1}$ to understand the method of teaching, $\alpha \rho \epsilon \tau \eta$, he eagerly sought to provide himself with an apparatus of definitions not only of $\alpha \rho \epsilon \tau \dot{\eta}$ in general, but also of the particular a $\rho \epsilon \tau a i$. In the effort to do this, he found himself baffled by unexpected difficulties. Naturally he enquired after the source of such difficulties. What obscure element was there in the nature of $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$ and of the $\dot{\alpha} \rho \epsilon \tau \alpha i-$ e.g.
 so hard to define? Reflection at length convinced him that virtue in general, and each particular virtue, involved on the part of its possessor, not only $\epsilon \pi \iota \sigma \tau \eta \dot{\mu} \mu \eta$, i.e., cognition of ends and means, but also something else some correlatum distinct from $\dot{\epsilon} \pi \iota \sigma \tau \mathfrak{\eta} \mu \eta$. This he found to be feeling, i.e., the pleasure or pain, or emotion, which attends all human moral activities, and furnishes the motives or counter-motives of all. Thus Plato came in

[^22]the end upon the truth, with which Aristotle ${ }^{1}$ starts at the beginning of his work, that $\pi \epsilon \rho i$ jiठovàs каi $\lambda u ́ \pi a s$

(b) Besides the difficulty experienced by Plato in his attempt to reach definitions, he met with another, no less gravely significant, showing that all was not right, or at least not clear, in the Socratic doctrine which seemed so simple. If virtue was knowledge, how was the obvious practical difficulty of teaching it to be explained? How was it that the 'Sophists,' the ablest professional teachers of the day, were so unsuccessful in imparting virtue to their pupils? How, again, was it that eminent statesmen, whose $\dot{\alpha} \rho \in \tau \eta \eta^{\prime}$ and $\epsilon \in \tau \iota \tau \eta \dot{\eta} \mu \eta$ no one could impugn, were unable to do what they must have earnestly endeavoured to do, viz., communicate their $\alpha \rho \epsilon \tau \eta$ to their own sons? Lastly, though the Sophists and others might fail as teachers of $\dot{\alpha} \rho \in \tau \dot{\eta}$, how was it that Socrates himself, who defined virtue as knowledge, i.e., as the one and only thing properly teachable, professed to be utterly unable to teach it, and refused to accept pupils who wished to learn it from him? How was this paradox to be explained ?

Solutions of these difficulties respecting definition and teaching are dramatically attempted in many of the Platonic dialogues, but in vain ; nor did Plato succeed in solving them to his satisfaction until, abandoning the narrow Socratic simplicity, he framed theories of $\alpha \rho \epsilon \tau \eta^{\prime}$ and $\epsilon \pi \iota \sigma \tau \eta \dot{\eta} \mu$, and of the dynamic relation between them, which made full and due provision for the neglected element of feeling.
7. It may be, and is here, supposed that Plato's dialogues contain marks of the steps by which their author gradually withdrew from the fallaciously simple Socratic doctrine, and made his way nearer and nearer to the conclusions which, taking full account of feeling, are found in the Republic and the Laws, and in fact

$$
{ }^{1} \text { N.E. } 1104^{\mathrm{b}} 8 .
$$

approximate to those afterwards developed by Aristotle. If we could trace these steps, we might, with some assurance, attempt the useful work of arranging the dialogues in their order of succession, assuming this to correspond, in the main, to successive phases in the evolution of Plato's theory of feeling.

This clue indeed would still be only one among several others that are possible. It seems, however, to be the most persistent, and, at least to this extent, the most trustworthy. Plato's complex philosophy had many ramifications, of which some throve steadily, while others (e.g., the theory of reminiscence) withered prematurely. His speculation on the subject of feeling, however, once begun, continued to gain in vigour, until it ultimately acquired an almost undue preponderance in his system of Ethics. Considered simply with reference to this criterion, the dialogues fall into two main groups.

The first group contains those in which Plato, still dominated by the doctrine of his master, either takes no account of feeling, or treats its manifestations as purely irrational. It is a remarkable fact that all the dialogues in this group, though discussing definitions of virtue, or of the several virtues, and modes of teaching virtue, never discuss, and hardly ever even allude to, the subject of pleasure and pain.

The second group consists of those in which Plato, no longer moving contentedly within the limits of the Socratic formula, shows, by his criticism of its meaning and the meaning of each of its terms, that he has become desirous of broadening it as a basis of moral theory.

Both groups contain dialogues not directly concerned with feeling, the arrangement of which must be determined on different principles.
8. Taken collectively the dialogues of the first group may confidently be held to have been written by Plato earlier than those of the second. To settle the order of the several pieces within the group is, of course,
not easy, but they may be distinguished into the following four successive divisions:-
(a) Those which naively lecture as it were from the Socratic platform. Such are :-

| The Apology |  |
| :---: | :--- |
| " | Ion |
| [" | Crito |
| " | Minos]. |

(b) Those which look in vain for definitions of $\alpha \dot{\alpha} \epsilon \tau \eta^{\prime}$, or of certain $\dot{\alpha} \rho \epsilon \tau \alpha \alpha^{\prime}$; or express surprise at certain deductions from the Socratic conception. Such are :-

$$
\begin{array}{ll}
\text { The } & \text { Euthyphron } \\
" & \text { Lysis } \\
" \text { Laches } \\
\text { [", } & \text { First Alcibiades] } \\
\text { [", } & \text { Second Alcibiades] } \\
" & \text { Charmides } \\
" & \text { Hippias Minor. }
\end{array}
$$

(c) Those which bring into prominence difficulties as to the possibility or mode of 'teaching' or 'learning' ¿ $\rho \epsilon \tau \dot{\prime}$ or $\sigma o \phi_{i} \alpha$. Such are :-

## The Euthydemus Theages.

(d) The Menon, which has characteristics common to the dialogues under $(a),(b)$ and $(c)$ but is distinguished by a strongly marked tendency to break away from the Socratic position, and advance to an independent attitude on essential questions.

The arrangement of the several dialogues within each of these divisions is very difficult, but I have ventured to give it as above. Some reasons for doing so will be found in the observations made below on the places assigned to the dialogues in succession.
9. Our second group falls into two classes, consisting respectively of (A) those which do not, and (B) those
which do, officially and expressly concern themselves with feeling.

To Class A belong :-
The Cratylus
" Theaetetus
", Parmenides
", Sophistes
" Politicus.

To Class B belong :-
The Phaedo
" Gorgias
", Protagoras
" Hippias Major]
" Phaedrus
" Symposium
" Philebus
" Republic
" Timaeus
" Leges.

The dialogues of Class B may, according to our clue, be distinguished into :-
I. An earlier subdivision, viz., those which err under any of the following heads :-
(a) confusing feeling with perception;
(b) condemning pleasure indiscriminately ;
(c) treating cognition or reason as a force in itself, capable of coercing feeling;
and 2. a later subdivision, viz., those which are free from the above errors.

Those in the earlier subdivision may be arranged in the following order :-

The Phaedo, which is guilty under each of the three heads (a), (b) and (c).

The Gorgias, which errs ( 495 D) under head (b).
The Protagoras, which errs (237 D) under head (c).

The remainder, constituting the later subdivision, may take order thus :-
> [The Hippias Major]
> Phaedrus
> Symposium
> Philebus
> Republic
> Timaeus
> Leges.

Neither of the above classes, A and B, as wholes, can take precedence of the other. To arrange the dialogues which they contain, those of $B$ may be treated in accordance with our clue, and those of A interpolated among or beside them according to other criteria. The arrangement of the dialogues to which the feeling-clue is only remotely applicable, and which have to be treated by a different method, may here be omitted as unnecessary, if not irrelevant.

The dialogues-with the exceptions just mentionedhaving been thus tentatively arranged in order, by the help of the clue derived from their treatment of feeling, some remarks may now be offered on each in turn, explaining its title to the place to which it has been here assigned.

## Group I.

10. The Apology throughout is implicitly characterised by the Socratic doctrine of the all-sufficiency of $\dot{\epsilon} \pi I \sigma \tau \gamma \dot{\prime} \mu \eta$, with constant use of the ${ }^{\prime} \lambda \lambda \epsilon \gamma \chi$ os in order to get rid of the false persuasion of $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$. There appears in it also the Socratic antagonism to feeling (enthusiastic emotion) as such. The poets ${ }^{1}$ were mere enthusiasts, who could not explain their own poetry. Plato makes Socrates here state a profound truth, as regards aesthetic feeling, but deduce from it an untrue and narrow conclusion ; as if poetry or art in general, because it cannot

[^23]'give $\lambda o ́ \gamma o s$ ' of itself, were little better than imposture ; the assumption being that no psychic energy has value which has not meaning, or the meaning of which cannot be unpacked with words.

The Ion continues in the same strain. It holds up to ridicule the rhapsodist who does not know the canons of his art. This dialogue seems to give us a typical specimen of the manner of Socrates towards those whom he met in the streets of Athens, cross-examining them as described in the Apology. For this reason, as well as for its narrow contempt for literary emotion, it has been placed here ${ }^{1}$. Its criticism of Ion, as a brainless and merely contemptible creature, shows how imperfect as yet were Plato's views of feeling compared with those to be expressed by him in the Symposium and Phaedrus, where, under the general name of "Epws, enthusiasm, though here laughed down, is treated as the auxiliary-the very wing-of the spirit of genius.

The Crito has been placed here firstly because it exhibits Socrates measuring the סíкаьov by the vó $\mu \mu о \nu^{2}$. He will not break prison because to do this would be 'against the law.' The Xenophontean Socrates took the same view of the סíkдıov as equivalent to the vó $\mu \iota \rho \frac{\nu}{}$. Secondly, it is placed here because Socrates in it ostentatiously disparages feeling, and declares ${ }^{3}$ of himself that he never obeyed the prompting of any internal impulse except reason. There is no such incongruity as Mr Grote finds ${ }^{4}$ between the Socrates of the Crito and the Socrates of the Apology. In the latter also Socrates proclaims himself ${ }^{5}$ as, above all, a law-abiding man, and recalls his

[^24]
## ORDER OF THE PLATONIC DIALOGUES 4 I

own action in obeying ( $\mu \epsilon \tau \dot{\alpha}$ той עópov каi тои̂ סıкаíou) the law at great risk to himself, in opposition to the resolution of the Democracy. Obedience to the 'law' (though not necessarily to $\psi \eta \phi^{\prime} \sigma \mu \alpha \tau \alpha$ ) was the elementary Socratic conception of justice. How naive it was compared with that which Plato afterwards attempted to develop in the Republic!

The Minos is probably non-platonic; it would logically stand here, however, because it takes up a question germane to the leading thought of the Crito, and enquires -What is Law? This question it solves more Socratico by reducing $\nu o ́ \mu o s$ to $\dot{\eta} \tau \sigma \hat{u}$ óv $\nu \tau o s ~ \dot{\epsilon} \xi \epsilon \in \dot{\prime} \rho \in \sigma \iota s$. It confuses ${ }^{1}$ the two distinct senses of law, while it treats education in virtue as a matter of $\lambda$ óroı, and implies that virtue itself is merely knowledge.
II. The Euthyphron asks:-What is тò óvıov? This enquiry seems parallel to the quest after the meaning
 is treated as determined by the divinely enacted ritual. In this dialogue, however, when Euthyphron, replying to Socrates, refers $\tau o ̀$ ö $\sigma \iota \sim$ to the will of the gods, as $\tau \grave{o}$ тoîs $\theta$ єois $\pi \rho \sigma \sigma \phi i \lambda \epsilon$ 's, his explanation is promptly shown to involve grave difficulties. When, as an alternative, he endeavours to explain $\tau \grave{o}$ ö $\sigma \iota \nu$ as a branch ( $\mu \epsilon$ $\rho o s$ ) of $\tau \grave{o}$ סíкaьov, this explanation also is rejected. Yet (in so far as $\tau \grave{o}$ ö oıov corresponds to $\tau \dot{\prime} \epsilon \dot{v} \sigma \epsilon \beta \epsilon \in s$ ) the Socrates of Xenophon would have been bound to accept this as well as the former account of $\tau \grave{o}$ ó $\sigma \iota \nu . ~ \tau o ̀ ~ \epsilon \dot{v} \sigma \epsilon \beta \epsilon \epsilon$ 's was for Socrates that part of $\tau \dot{o}$ סík $\alpha \iota o \nu$ which was determined by the laws relating to the gods ${ }^{3}$; while the part which related to man was determined by the laws of the State. Evidently Plato is already more critical than the Socrates of Xenophon was as to definitions of justice and piety.

The Lysis seeks a definition of $\phi i \lambda i \alpha$, which, as the greatest of human $\alpha \rho \epsilon \tau \alpha \dot{\prime}$, comes next in order after $\dot{\delta} \sigma$ ó $\tau \eta s$, the virtue of man in relation to the gods; hence

[^25]the place to which this dialogue has here been assigned. The definition sought for in the Lysis cannot there be found. It ends with the words 'We are friends, yet do not know what friendship means.' The reasons for placing it next before the Laches are given below. Both alike suggest that Plato was gradually discovering-or approaching the discovery-that there is more in moral states than can be defined by or through mere $\lambda$ ó $\gamma o$.

The Laches examines and seeks to define another leading $\dot{c} \rho \epsilon \tau \dot{\eta}$, that of courage. Laches, the heroic commander, explains ${ }^{1}$ it as $\kappa \alpha \rho \tau \epsilon \rho i ́ \alpha ~ \tau \iota s$, depending on $\phi \dot{\sigma} \sigma \iota s$. Nikias, equally brave but with more intellectual culture, defines ${ }^{2}$ it as a form of knowledge——ij $\tau \bar{\omega} \nu \delta \epsilon \iota \nu \bar{\omega} \nu \tau \epsilon \kappa \alpha i$ $\theta a \rho \rho \alpha \lambda^{\prime} \omega \nu \dot{\epsilon} \pi \iota \sigma \tau \eta \dot{\mu} \mu \eta$. Both definitions are rejected.

The question how men are to be educated to courage, though mentioned, is not pursued. Yet even the mention of this practical matter shows that education was already winning Plato's attention as a missionary of $\dot{\alpha} \rho \epsilon \tau \eta$ '. 'First define $\dot{a} \nu \delta \rho \epsilon i a$, , says Socrates ${ }^{3}$, 'and then we shall see how it is to be acquired-whether as a $\mu \alpha^{\prime} \theta \eta \mu \alpha$, or as an $\epsilon \pi \tau \tau \eta^{\prime} \delta \epsilon \nu \mu \alpha$. . Here however Plato sees that $\theta u \mu o{ }^{\prime} s$ is at the basis of $a^{\prime} \nu \delta \rho \epsilon^{\prime} a$, and that, without this mode of feeling, knowledge, though also necessary, is not sufficient to make a man brave. Yet Plato does not see-or at least he does not here tell us-that this emotional element, being surd, is what baffles the attempt to define bravery, and is also what causes the difficulty of imparting it by teaching.

The Laches is considerably later than the Euthyphron, and appears to be later than the Lysis. Its references to $\theta \nu \mu o ́ s$, as a factor of $a^{\nu} \nu \delta \epsilon^{\prime} \dot{\prime} \alpha$, and to the subject of teaching, with the confidence which it expresses that the explanation of $\dot{a} \nu \delta \rho \epsilon^{i} a^{\alpha}$ is not impossible and may yet be found, tend to exhibit it as more mature than either the Euthyphron or the Lysis. Another mark of maturer thinking perhaps appears in Laches 19I D-E, where Socrates throws out the suggestion that ávopeía may (unless correctly and

[^26]precisely defined) include endurance of, or resistance to,
 is not followed up; but it shows that Plato is prepared to go further than he has gone into the theory of feeling in connexion with virtue.

The first Alcibiades may be ${ }^{1}$ un-Platonic, though it existed in the fourth cent. b.c. It raises a more complex and difficult question than any in the preceding dialogues, viz., that of the 'virtue' of the statesman, which is a mark of lateness in it, compared with the Laches. Alcibiades I. must, however, if the work of Plato, be placed earlier than the Charmides, which refutes its main position, as to the possibility and worth of self-knowledge.

The Platonic authorship of the second Alcibiades is even more doubtful than that of the first. It proceeds to examine into the nature of фрóvnots, or the knowledge of practical good, by endeavouring to answer the question' What is that for which a wise man should pray to the gods, supposing his prayer certain to be granted ?' The conclusion arrived at is that only the gods know what is good for man. Logically we have no key to the place which this dialogue, if genuine, would hold in the series, except that, as it discusses $\phi \rho o o_{\eta} \boldsymbol{\sigma}$ เs-one of the four cardinal virtues recognised in the Republic-it would naturally come somewhere near the Laches and Charmides, which discuss two of the others ${ }^{2}$.

The Charmides seeks for a definition of $\sigma \omega \phi \rho \circ \sigma$ vivn in terms of $\dot{\epsilon} \pi \iota \sigma \tau \eta \dot{\eta} \mu$. None of the definitions proposed is good enough to bear the test of the $\epsilon^{\prime \prime} \lambda \epsilon \gamma \chi \circ$. The definition of $\sigma \omega \phi \rho \sigma \sigma$ v́vn as self-knowledge ${ }^{3}$ is vigorously and completely refuted at considerable length. If the Alcibiades I. and the Charmides are the work of the same

[^27]writer, it is impossible that the Alcibiades $I$. should be later than the Charmides, which, by a masterly analysis, tears up the passage in which the principal theme of Alcibiades $I$. is developed. The Charmides constitutes a distinct advance, beyond any of the dialogues hitherto arranged, in the criticism of the Socratic formula, $\dot{c} \rho \in \tau \eta^{\prime}=$ $\epsilon \in \pi \iota \sigma \tau \eta \mu \eta$. If $\sigma \omega \phi \rho o \sigma u v^{\prime} \eta$ or $\alpha \rho \epsilon \tau \eta^{\prime}$ in general be $\epsilon \pi \iota \sigma \tau \eta \dot{\eta} \mu \eta$, it cannot be mere knowledge of oneself. Of what else, then? The dialogue is nevertheless, from the psychological standpoint, comparatively early and crude. It gives no hint of the need of taking feeling into account for the explanation of $\sigma \omega \phi \rho \circ \sigma v v^{\prime} \eta$, which, strangely enough, is considered without any reference to $\dot{\eta} \delta o \nu \eta, \lambda u ́ \pi \eta$, or $\dot{\epsilon} \pi \iota \theta v \mu i ́ a$. We are still left with the Socratic notion ${ }^{1}$ that $\sigma \omega \phi \rho o \sigma v^{\prime} \nu \eta$, like any other $\alpha^{\prime} \rho \epsilon \tau \eta^{\prime}$, is $\epsilon \pi \tau \sigma \tau \eta^{\prime} \mu \eta$ of some sort.

The Hippias Minor examines the Socratic position, and shows that certain of its consequences are untenable. If $\dot{\alpha} \rho \epsilon \tau \dot{\eta}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$ then (if $\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$ be, as it is, something which confers a $\delta \dot{v} \nu a \mu s$ ) he who does wrong (e.g., tells a falsehood ${ }^{2}$ ) knowingly and purposely is a better man than one who does so unwittingly and unintentionally ; just as he who commits a solecism in grammar knowingly and purposely is a better grammarian than one who does so from ignorance. With this paradoxical consequence of the Socratic position Socrates is here made by Plato to express himself as deeply dissatisfied, though unable to deny that it follows from the premisses. This dialogue, placed here diffidently enough after the Charmides and before the Euthydemus, exhibits further advance in criticism, and a new method of criticismthat by reductio ad absurdum. Plato is in fact coming, and bringing his readers, nearer and nearer to the conclusion that, in its simple sense, the Socratic definition of cipєтí cannot be sustained. Before breaking with this

[^28]definition, however, he further discusses it, in connexion with the teaching of $\dot{\alpha} \rho \in \tau \eta^{\prime}$.
12. The Euthydemus charges the ordinary schools of Sophists with inability to teach the $\alpha^{\prime} \rho \epsilon \tau \eta^{\prime}$ of the individual. It therefore naturally precedes the Theages, which rather shows that neither they, nor statesmen like Pericles, nor even Socrates, can teach á $\rho \epsilon \tau \eta^{\prime}$ as $\sigma o \phi^{\prime} \dot{a}$ or $\epsilon \in \pi \iota \sigma \tau \eta \dot{\eta} \mu \tau \hat{\omega} \nu \epsilon \in \nu \pi o ́ \lambda \epsilon \iota$. The Sophists, Euthydemus and Dionysodorus, are unable even to take seriously the important question which Socrates puts, viz. 'can they make a person áratós (i.e. teach him virtue) only when he has first been persuaded $\omega$ s $\chi \rho \eta \dot{\eta} \mu \alpha \nu \theta^{\prime} \nu \in \iota \nu \pi \alpha \rho \rho^{\prime} \alpha u ́ \tau \hat{u} \nu$ ? ' or 'can they do so if he is not yet so persuaded, or if he even believes that $\dot{\alpha} \rho \epsilon \tau \eta$ is not a $\pi \rho \hat{\alpha} \gamma \mu \alpha \mu \alpha \theta \eta \tau o ́ \nu ' ?$ They trifle with the serious issues thus raised-those of the teaching and learning of $\alpha \rho \epsilon \tau \dot{\eta}$ and of moral improvement generally. They can only quibble to the end of the dialogue ${ }^{1}$. The conclusion of the whole matter, there drawn, is that such men only bring philosophy into contempt.

The more comprehensive and important question of the difficulty of teaching $\sigma o \phi^{\prime} \neq$ or $\epsilon \pi \iota \sigma \tau \eta \eta_{\eta} \tau \hat{\omega} \nu \epsilon^{\prime} \nu \pi o ́ \lambda \epsilon \iota$ is made prominent in the next dialogue. Will Socrates undertake the education of the young man Theages? He is earnestly requested to do so, but declines. His $\delta a \iota \mu o ́ v \iota o \nu^{2}$ prevents him. Besides he cannot teach aj $\rho \in \tau \eta$. If people learn from him, it is not because he gives them instruction, but in some quite mysterious way. Aristides ${ }^{3}$, who has profited by association with him, testifies to the truth of this. Not only can Socrates not teach what Theages desires to learn, but there are not, he thinks, and never have been, any persons able to teach it ${ }^{4}$. Here we find Plato dealing directly with the peculiar paradox of the Socratic definition. If $\alpha^{\dot{\alpha}} \rho \epsilon \tau \eta^{\prime}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$, why cannot Socrates, who so defines-why can no one-teach

[^29]it? On the other hand, Socrates admits that some, like Aristides, without being 'taught' by him, profit in their studies by his society. How is this? The insistence here upon the influence of the סalmóvov over Socrates, and upon the profit which his companions, without actually receiving instruction, derive from his society, seems to indicate that Plato, when writing the dialogue, had the subject of feeling as emotion prominently before his mind. The concluding part of the Theages, in the relation which it suggests (but does not mention) between master and pupil, as $\epsilon i \sigma \pi \nu \eta \lambda$ as and $\dot{c i}_{i} \tau \alpha s$, reminds one of a passage in the Phaedrus. Teaching here resolves itself for Plato into the effect of what we might call personal magnetism.

The attention bestowed on these matters brings the Theages near to the close of the Socratic period of Plato's writings, and points it to a place after the Euthydemus and before the Menon. With regard to the subject of teaching, as we have seen, it breaks new ground ; just as the Menon also breaks new ground with regard to the subject of learning, by suggesting that it is merely reminiscence.
13. In the dialogues which have been hitherto before us, Plato has considered the virtues of the private man and of the statesman. He has tried to define them, proceeding always on the hypothesis that $\dot{c} \rho \epsilon \tau \eta^{\prime}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$. He has, on this hypothesis also, investigated the possibility of teaching the virtues and the ways in which they may be taught. He has failed in both directions. In the Menon (which closes the period of his sincere attachment to the Socratic definition) Plato enquires, as if anew, what is ci $\rho \in \tau \eta$ ? Although formally, indeed, the first question he raises is whether $\dot{\mu} \rho \epsilon \tau \dot{\eta}$ is $\delta i \delta a \kappa \tau o ́ v$, yet at the close he declares this question to be unanswerable, until the definition of $\dot{\alpha} \rho \in \tau \eta \eta^{\prime}$ has been reached. Socrates starts the discussion by protesting that he does not know what

## ORDER OF THE PLATONIC DIALOGUES

$\alpha \rho \in \tau \eta^{\prime}$ is, and has never met the man who did know. 'But,' says Menon' ${ }^{1}$, slyly, 'if you are so ignorant of it as all that, how should you even know what to look for in your search for $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$ ? How would you recognise it if you met it ?' In answer, Socrates suggests ${ }^{2}$ that one may have a dim memory of it from a former life. Our souls being immortal, we may have had a pre-natal knowledge of $\dot{\alpha} \rho \epsilon \tau \dot{\prime} \dot{\prime}$ as of other things. Thus, when we now seem to be learning, or to be taught, we may really be only remembering, or being reminded. This novel speculation, which would place on a transcendent basis the concepts of both $\dot{\alpha} \rho \in \tau \eta \eta^{\prime}$ and $\dot{\epsilon} \pi \iota \sigma \tau \eta \dot{\mu} \mu$ (of whose objective validity Plato never entertains a doubt), takes its author beyond the mundane Socratic horizon. It shows that Plato is now, independently of his master, trying to forge a way along, which he trusts to pursue his master's theory of $\dot{\alpha} \rho \epsilon \tau \dot{\prime}$ to its completion. Here again we find raised the familiar difficulty ${ }^{3}$ that 'if $\alpha \rho \epsilon \tau \eta$ n be $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$, there should be teachers of it, but there are none'; the conclusion with which we are left being that it comes to those who possess it Acía $\mu \mathbf{\mu} \dot{\rho} \rho \alpha$, i.e., by divine dispensation, the theory that it comes $\phi \dot{\prime} \sigma \epsilon \iota$ having been rejected. That $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$ comes $\theta \epsilon^{\prime} \dot{\alpha} \mu \boldsymbol{\mu o i} \rho \alpha$, or as God wills, is, however, a conclusion which was for Plato a mere pis-aller. If $\dot{\alpha} \rho \epsilon \tau \dot{\prime}$ is $\dot{\epsilon} \pi \iota \sigma \tau \eta \mu \mu$, and $\dot{\epsilon} \pi \iota \sigma \tau \eta \dot{\eta} \mu \eta$ is (as the Menon pointedly states ${ }^{4}$ ) the one and only thing teachable, why then is $\dot{\alpha} \epsilon \tau \eta_{n}^{\prime}$ not teachable? His acquiescence in the $\theta$ єío $\mu$ uoip $\alpha$ conclusion here is manifestly only temporary.

In the earlier course of the dialogue he refers to the perturbing consequence of the Socratic definition (already brought out in the Hippias Minor), that, if $\dot{\alpha} \rho \in \tau \dot{n}$ ( $=\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta)$ be as it is a form of $\delta \dot{v} v a \mu c s$, those who

[^30]possess it, being able to do the evil as well as the good in each alternative, are no more virtuous than vicious. He suggests ${ }^{1}$, in order to meet this difficulty, that the $\dot{\epsilon} \pi \tau \sigma \tau \dot{\eta} \mu \eta$ in which $\dot{\alpha} \rho \epsilon \tau \eta^{\prime}$ consists is not only $\delta \dot{v} v a \mu u s$, but $\delta \dot{v} v a \mu \iota s$ plus a form of $\dot{\epsilon} \pi \imath \theta v \mu i \alpha$. This suggestion is, of course, in the sequel mangled by the é $\lambda \epsilon \gamma \chi o s$; yet in it lies Plato's first positive contribution to the amendment of the Socratic definition. The addition of $\dot{\epsilon} \pi \iota \theta \nu \mu i a$ to $\delta \dot{v} v a \mu u s$, in the conception of the $\dot{\epsilon} \pi \iota \sigma \tau i \mu \eta$ which constitutes $\dot{\alpha} \rho \epsilon \tau \dot{\eta}$, indicates that Plato is about to give up the naive position of Socrates. He does not as yet, however, hint at a theory that $\dot{\alpha} \rho \epsilon \tau \dot{n}$ rests on a state of systematically trained and disciplined feeling as its basis.

The Menon comes naturally at the close of the Socratic period. While concluding nothing, it completes the statement of difficulties, and clears the ground for fresh and independent investigation. Besides, as already remarked, it more than hints at a transcendent basis for the conceptions of $\dot{\alpha} \rho \epsilon \tau \eta$ and $\epsilon \pi \not \epsilon \sigma \tau \dot{\eta} \mu \eta$. On this basis the speculation of the Phaedo-the next dialogue-is conducted.

## Group II.

14. The dialogues contained in Class B of our second group either discuss feeling, with more or less clearness, as a factor in the conception of $\dot{c} \rho \epsilon \tau \eta^{\prime}$; or else (when directly concerned only with $\left.\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta\right)$, for the most part, imply that Plato, when he wrote them, had reached a maturer view as to the relation between $\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$ and feeling in this conception.

The Phaedo naturally comes after the Menon. It assumes, as basis alike of knowledge and of virtue, the reminiscence theory of learning ; though, in the Phaedo, this theory involves more than it did in the Menon, viz., the separate existence of the Platonic ideas.

[^31]Although the principal purpose of the Phaedo is to demonstrate, by deduction from this theory of transcendent ideas, the immortality of the soul, it has features of interest which more immediately concern us. For instance, it is the first of the dialogues in our arrangement which discuss the subject of pleasure and pain. The reference to $\epsilon \pi \iota \theta u \mu i \alpha$ in the Menon shows, indeed, that this subject was then not far from Plato's thoughts; a fact which supports the arrangement of the Phaedo next after the Menon. Plato, however, has not yet matured his theory of feeling. The conceptions of feeling (pleasure and pain) and of perception, both comprised under the term aí $\sigma \eta \| \sigma t s$, appear confused in this dialogue. At the very start ${ }^{1}$ attention is ostentatiously drawn to the subject of pleasure and pain. Later on we find Socrates charging ${ }^{2}$ the ai $\sigma \theta \eta^{\prime} \sigma \epsilon$ Is, as perceptions, with offences which hold of them only as feelings. Plato's real ground of quarrel ${ }^{3}$ with the ai $\sigma \dot{\eta} \sigma \epsilon \epsilon s$, as perceptions, is that they do not give general knowledge, and that the particular knowledge afforded by them is no more true than false. In his wiser moments even in the Phaedo ${ }^{4}$ he tells us that these same $\alpha i \sigma \theta \theta_{\eta}^{\prime} \sigma \epsilon$ ts are the sole empirical prompters of the $\dot{\alpha}^{\nu} \nu \alpha \dot{\alpha} \nu \eta \sigma \iota s$ of which in three dialogues so much is made. It is against the ai $\sigma \theta \eta^{\prime} \sigma \epsilon$ ts as feelings that he has ground of complaint in the Phaedo, where, e.g., he tells us that they 'make us love our prisonhouse ' etc. In the Phaedo ${ }^{5}$ 首órot are still the sole media through which one has to reach, not merely knowledge, but also virtue. Thought or cognition is conceived in the Phaedo as if it were in itself a force capable of resisting, coercing, or banishing feeling. Again, the Phaedo, in an impressive passage, condemns all pleasure indiscriminately, though once ${ }^{6}$ it refers incidentally to

[^32]that connected with $\tau \dot{\alpha} \mu \alpha \theta \dot{\eta} \mu \alpha \tau \alpha$ as privileged. Hence this dialogue may properly come first of the dialogues in our second group.

The Gorgias reveals a more advanced conception of feeling than that disclosed in the Phaedo. The analysis in the Gorgias of the physiological or physical conditions of the pleasures of the $\dot{\alpha}$ ко́ $\lambda a \sigma \tau$ os probably owes much to the medical tradition of Plato's time ; yet it is remarkable that here we find Plato paying attention to this tradition. He is now in earnest with feeling, as distinct from cognition. The discussion in the Gorgias of the relation between $\dot{\eta} \dot{\delta} o v a i ́ a n d ~ \lambda \hat{u} \pi \alpha \iota$ and $\dot{\epsilon} \pi \iota \theta \nu \mu i \alpha \iota$, as far as it goes, is almost worthy of the Philebus. The Gorgias, however, makes no allowance for the purer or 'higher' pleasures, of which so much is said in the Philebus, Republic, and other dialogues. It shows crudeness, also, in not making Callicles distinguish between pleasure as a whole and the pleasure of the moment, thus leaving him helpless before the sophistical ${ }^{\prime \prime} \lambda \epsilon \gamma \chi$ os of Socrates. This distinction is made afterwards, in the Protagoras, with saving logical effect. The Gorgias ${ }^{1}$ treats with affected contempt, as merely колакєía, even the pleasures of literature and art, elsewhere highly appreciated.

There are, however, it must be admitted, certain marks of relatively mature thinking which give one pause in the effort to determine the place of this dialogue. Thus ${ }^{2}$ we read, at the conclusion of a brief theory of тò калóv,

 a hint, of the idea of a 'hedonistic calculus,' such as that boldly outlined in the Protagoras.

On the whole, the Gorgias may, perhaps, stand next after the Phaedo, but before the Protagoras and the Phaedrus. If the Phaedrus had been already written by Plato, the indiscriminate attack on rhetoric contained in

[^33]the Gorgias would have seemed to its author scarcely justifiable. Similarly, if the Protagoras had been already written, the indiscriminate diatribe of the Gorgias against
 corrects the exaggeration of the Gorgias, distinguishing between an average of well-calculated pleasures and the mere pleasure of the moment as the good for man. Otherwise, there is no such incongruity as Grote finds between these two dialogues.

The reasons for placing the Protagoras next ${ }^{1}$ have been partly stated. It defends well-ordered pleasure against the unqualified attack made on pleasure in the Gorgias, which therefore naturally precedes it. It pays strict attention to the subject of education, and represents Protagoras-here a person of deservedly great, if not paramount, authority-as dwelling on the essential importance of discipline and training in the teaching of virtue to the young. Protagoras is the leading dramatic personage. He corrects ${ }^{2}$ a gross logical slip in the reasoning of Socrates, when the latter tries to prove that à $\nu \delta \rho \in \epsilon^{\prime} \alpha$ is $\sigma o \phi_{i} \alpha$. He patronises Socrates as a superior might do. He is not worsted in the end ; for Socrates who has silenced him cannot believe himself to be right. Honours are divided. The hypothesis, in developing which Socrates finds himself thus unsuccessful, is the old one, that $\dot{\alpha} \rho \epsilon \tau \dot{\eta}=\dot{\epsilon} \pi \iota \sigma \tau \dot{\eta} \mu \eta$.

Mr Grote, when he charges Plato with inconsistency in the Protagoras, forgets that Plato in his dialogues is often arguing, as it were, with himself, balancing the reasons for and against some proposition. Socrates (i.e. Plato through him, testing the Socratic theory) here makes a final effort, on empirical lines, to show that virtue is knowledge. Defining it ${ }^{3}$ as knowledge of the good, he defines

[^34]the 'good' as $\tau o^{\prime} \dot{\eta} \delta \dot{v}$. 'A $\rho \in \tau \eta$ ', accordingly, would be the definite knowledge (derived from calculation) of the $\dot{\eta} \delta v^{1}$ as its object and end, and of the means to the attainment of this end; and thus at last $\alpha \rho \epsilon \tau \eta$ ' would be 'teachable.' It is in general outline the theory of Bentham anticipated, and represents, perhaps, the best that sane hedonism can offer as a theory of virtue. Here, in this argument that $\alpha \rho \epsilon \tau \eta^{\prime}=\dot{\epsilon} \pi \iota \sigma \tau \eta^{\prime} \mu \eta$, we have Plato's first and last attempt to shape a doctrine of scientific or rational hedonism ; and neither Socrates nor Protagoras gives it his approbation. The attempt shows great maturity of thought on Plato's part. One notion still remains, however, which was destined later on to disappear from Plato's mind. Protagoras and Socrates both agree ${ }^{2}$ that reason is a force which can rise up against and coerce feeling.

The Protagoras has been placed next before the Hippias Major. The latter is doubtfully assumed to be a genuine work, in which Plato opens a new chapter in his theory of feeling-one which deals with aesthetic feeling, i.e. the feeling or emotion attending the perception of the beautiful.

The Hippias Major-which asks what is meant by тò ка入óv?-initiates the discussion of aesthetic feeling continued in the Phaedrus and Symposium. Its discussion
 and psychological. The dialogue, as a piece of writing, does not deserve comparison with the magnificent works which follow it. It has its use, however, in broaching ${ }^{4}$ the subject of aesthetic feeling. Nor is it, as an effort of dialectic, sophistical though it may be, quite unworthy of Plato. If it is his work, it can hardly have been written after the Phaedrus and Symposium. It would be dreary reading to persons already acquainted with these splendid compositions.

From several points of view the Pbaedrus may be

[^35]regarded as complementary to the Gorgias. It corrects the exaggerated attack there made on the pleasure of literature and art, and it also rectifies the unqualified condemnation of 'rhetoric.' It shows how, by the combination of excellence in 'rhetoric,' as the art of oratorical and literary expression, with excellence also in Dialectic ${ }^{1}$ (in the Platonic sense) as exact philosophic knowledge, some of the fairest works of the human mind are produced.

The Pbaedrus, indeed, is, to some extent, the expansion of a thought found in the Gorgias ${ }^{2}$, and expressed there in the words of Socrates, фiлобофíav $\tau \alpha \mu \dot{\alpha} \pi \alpha \iota \delta \iota \kappa \dot{\alpha}$; with which may be compared words put into his mouth also

 $\tau \epsilon \kappa \alpha i$ ф $\rho о \nu \epsilon i \nu$ : in keeping with which we have from Phaedrus himself the passionate outburst ${ }^{4}$ : tívos $\mu \dot{\epsilon} \nu$ oùv
 '̈עєка; Best of all jiठovaí are the jiठovaí of beautiful expression allied with clear and true thinking; and such pleasures are sharply contrasted with $\alpha i \pi \epsilon \rho i \tau \dot{o} \sigma \hat{\omega} \mu \alpha$, which are 'justly called $\alpha \nu \delta \rho \alpha \pi o \delta \omega \dot{\delta} \epsilon \iota s$.' The life of philosophy is promoted by indulging, and may safely indulge, the highest forms of enthusiastic emotion. These are here comprehensively referred to under the name of 'E $\rho \omega \mathrm{s}$. The theory of reminiscence, which occurs in the Menon and Pbaedo, occurs also in the Phaedrus. This theory here, however, is not, as in the Pbaedo, made the basis of the argument for immortality ; and, moreover, the theory of ideas in the Pbaedrus, though conjoined with the reminiscence theory, is not necessarily, or organically, dependent on this. Indeed the sketch given or hinted at in the Pbaedrus ${ }^{5}$ of the formation of general ideas-
 seems, despite the connexion there alleged between it

[^36]and civápvivts, to show that the reminiscence theory (which never afterwards assumes importance in the dialogues) was already beginning to lose ground in Plato's favour, and to be replaced by a different and more trustworthy basis of idealism, viz. the conception of the $\grave{\epsilon} \nu$ каi $\pi o \lambda \lambda \alpha^{1}$. The feeling or emotion dealt with in the Phaedrus (and also in the Symposium) under the name of 'Epws is that which arouses to supreme activity of expression the total life of the soul. Hence its potency over the intellectual faculty, which, according to Plato, it quickens into superlative constructiveness. Plato refers metaphorically to this supreme feeling as the plumage of the soul ${ }^{2}$.

The Symposium continues in a more exalted strain the eulogy of "Epws commenced in the Phaedrus. In the Pbaedrus we are shown the power of $i$ $\theta$ cia mavia in general over the soul of the poet or other seeker after selfexpression, and in particular, as "Epws, over the soul of the philosopher. In the Symposium, in the speech of Diotina, "Epws is represented as the genius of philosophy itself. Here, as in the Phaedrus, Plato is transported with a thought, which has descended upon him like a heavenly vision. 'E $\rho \omega \mathrm{s}$, the interpreter between God and man, takes Plato's soul on high, and reveals to him the Trinity in Unity of the True, the Beautiful, and the Goodthe perfectly satisfying object of the united faculties of knowledge, feeling, and will.

The Symposium naturally comes after the Pbaedrus.
15. There remain the five dialogues, Class $A$ of our second group-the Ciratylus, Theaetetus, Parmenides, Sopbistes, and Politicus-which, though not concerned with feeling, and, therefore, not to be arranged directly by the clue which we have been following, nevertheless belong to Plato's maturity. They may, as we have said, be interpolated with more or less confidence in their several places among the other dialogues of this period by the use of

[^37]other criteria. We will not dwell upon them, but pass to the concluding dialogues, the order of which answers directly to our test.

These fall into the following order-Philebus, Republic, Timaeus, Leges. Their contents being generally well known, the remarks offered on each shall be as brief as possible.
i6. The Philebus treats of feeling in relation to the constitution of the Good, not only the Good for man, but the metaphysical Good. In pursuance of this treatment, however, it presents a psychological account of feeling more complete than any other to be found in ancient philosophy before Aristotle. Indeed no separate work of Aristotle gives an account of feeling which is at once so detailed and so systematic as that given in Plato's Philebus. This dialogue analyses and classifies all the kinds of feeling, both that strictly so called, viz.-pleasure and pain, and the feeling variously implied in the desires and emotions. It divides feelings into those which accompany presentative and those which accompany representative consciousness. It distinguishes pleasures into lower or sensual, and higher or purer pleasures. It attempts to determine the psychological nature of the pleasure derived from literature-from tragedy and more especially from comedy. Passing from psychology to philosophy, the Philebus like the Symposium glorifies aesthetics by identifying the idea of the Beautiful with that of the
 $\kappa \alpha \lambda о \hat{u} \phi \dot{\sigma} \sigma \nu^{1}$. This dialogue, therefore, judged by our clue, stands at or near the end of Plato's preparatory work, exhibiting him equipped with his complete psychological and philosophical apparatus, and ready to proceed with his greatest constructive work. The Philebus, however, has in it no hint of the constructive intention. It is purely scientific in its method ${ }^{2}$. It says nothing of teaching or

[^38]discipline. It has, as far as feeling goes, assembled the materials which Plato will build into the fabric of the Republic.

In the Republic, by far the greatest of Plato's works, we find utilised all that he had gathered from experience and reflection regarding the subject of feeling-pleasure and pain, desire and emotion-in its bearing on human ${ }^{\alpha} \rho \epsilon \tau \eta^{\prime}$. Those for whom this paper is written will not need to be reminded of the extreme care which Plato takes to show that for him, now, the 'teaching' of $\alpha \rho \epsilon \tau \eta$ ' must begin with feeling, not with intellect: that feeling must be cultivated long before dialectic can be usefully brought into the service of education. Now, indeed, even the breeding as well as the training of his young alumni has become in his opinion important as a security for their education. Having done all that can be done for the foundation of character, by the use of artificial selection, $\dot{\eta} \mu o v \sigma \iota \kappa \dot{\eta}$, and $\dot{\eta} \gamma \nu \mu \nu \alpha \sigma \tau \iota \kappa \eta^{\prime}$, the wise legislator of the Republic will then, and not till then, proceed to complete his work by the introduction of $\boldsymbol{\eta} \delta \iota \alpha \lambda \epsilon \kappa \tau \iota \kappa \dot{\eta}$. Plato tells ${ }^{1}$ us emphatically that, if the worst results are not to follow, the use of $\lambda$ órou (dialectic) for educational purposes must be postponed until certain habits of feeling have first been securely established by an elaborate and long-continued process of discipline.

The Timaeus might, like the Philebus, have been a propaedeutic for the practical doctrines of the Republic, for which it supplies what Plato considered the physical or physiological-what we should call the 'scientific' basis. It gives an account of feeling, well distinguished from perception ; and the theory of education and legislation set forth towards the close of the work shows how very deeply Plato had now become impressed with the

[^39]importance of feeling as a coefficient in the moral constitution of man. But the Timaeus ${ }^{1}$ by its own testimony comes between the Republic and the fragmentary Critias; and we have no sound reason to doubt that this is its proper place.
17. In the Leges, which, it is hoped, the following observations (agreeing in this with the fairly consistent tradition of antiquity) will show to have been his latest work, indeed in all probability the work of his old age, Plato returns, from the $\pi \alpha \rho \alpha^{\prime} \epsilon \iota \gamma \mu \alpha^{2} \epsilon \dot{\epsilon} \nu$ oúpav $\hat{\epsilon}$ of the Republic, to the earth our habitation. Reference has been here made, some pages back ${ }^{3}$, to the subject of feeling as one which for Plato, from the time when he first grasped it, steadily gained in importance, until at last it ' acquired an almost undue preponderance in his system of Ethics.'

Reference to the Leges will show:-
(a) The weight assigned in this dialogue to pleasure in the scale of 'goods':
(b) The power ascribed to feeling over reason in human conduct ; and
(c) The pessimistic Weltanschauung which, apparently as a consequence of this, had darkened the once bright spirit of Plato.
(a) The Athenian stranger, pressed by the necessity of taking account of feeling in his conception of the good for man, asserts ${ }^{4}$ that the virtuous life alone is $\dot{\eta} \delta \dot{\prime} s$; and, when Kleinias demurs, goes so far as to postulate that a legislator 'who was good for aught' (о仑ि $\tau \iota ~ к \alpha i ~ \sigma \mu \iota к \rho o ̀ \nu ~$ ó $\phi \in \lambda o s$ ) would proclaim publicly and enforce by law the belief that none who are wicked live $\dot{\eta} \delta \delta^{\prime} \omega$. To this Kleinias is made to reply in the memorable words : $\kappa \alpha \lambda \grave{\nu}$

 (which, though Plato must have the credit of it, seems

[^40]indeed a mere salvo) no reply is offered. To the second, the Athenian stranger in effect pleads that he cannot see the impossibility of enforcing the useful belief, whether true or false, by legislation.

An estimate ${ }^{1}$ is given of the $\dot{\eta} \delta o v a i ́ a f f o r d e d ~ b y ~ t h e ~$ 'better' compared with the 'worse' types of life, for the purpose of showing that the life of virtue is the most pleasure-giving. Plato's urgency on this point here exceeds anything of the sort in the ninth book of the Republic. In fact Plato in the Leges all but rests the case for human virtue on its pleasure-giving results. Bentham or H. Spencer could assent to every proposition contained in this part of his argument.
(b) Every man has within him $^{2}$ two opposite 'irrational counsellors,' $\dot{\eta} \delta o \nu \eta$ ' and $\lambda u ́ \pi \eta$. Besides these he has also $\delta o^{\prime} \xi \alpha \iota \mu \epsilon \lambda \lambda o ́ v \tau \omega \nu$, the one, viz. фó $\beta o s$, anticipating pain, the other, viz., $\theta$ áposs, anticipating the
 a faculty of calculating and comparing better and worse. 'We are, in fact, each of us a $\theta a \bar{u} \mu a$ $\theta \epsilon i o \nu$; and we do
 $\theta \alpha \bar{u} \mu \alpha \theta \epsilon \bar{o} \nu$ is merely a $\pi \alpha i \gamma \nu i o v$, or has been constructed by its divine maker with a serious purpose ( $\sigma \pi$ ou $\delta \tilde{\eta}$ $\xi v \nu \epsilon \sigma \tau \eta \kappa o ́ s) . '$ At all events, the $\pi \alpha \dot{\alpha} \eta \eta$ above mentioned are, as it were, $\nu \epsilon \hat{u} \rho \alpha$ or $\sigma \mu \eta \eta^{\prime} \nu \nu \theta o \iota$, which agitate the $\theta a \bar{\mu} \mu \theta_{\epsilon} \theta_{i} \nu$, pulling it in contrary directions, this way or that, to acts of virtue or of vice.

Feeling, as emotion, per se is blind ${ }^{3}$ and cannot be reasoned with; yet it overrides reason, as in those suffering from $\dot{\eta} \mu \epsilon \gamma_{i} \boldsymbol{\sigma} \tau \eta \dot{\alpha} \mu \alpha \theta_{i} \alpha$, i.e., those who love ${ }^{4}$ what is bad for them, and hate what is good. Such persons are incapable of governing themselves or others.
'God governs ${ }^{5}$ human affairs, but with $\tau u ́ \chi \eta$ and кццоós for his coadjutors'; 'an indulgent or charitable

[^41]view of the matter might however add $\tau \epsilon^{\prime} \chi \nu \eta$, that is, intelligent human agency, as a co-operator.' So small and precarious is the part in human affairs here left by our philosopher for man himself to play.

Plato in the Republic ${ }^{1}$ hoped for the consummation of his perfect state through philosophy, when a philosopher should become king, or a king become philosopher. In the Laws he has only the very much humbler hope that

 $\tau \iota \sigma i \delta u \nu a \sigma \tau \epsilon i ́ a s$. He looks no longer to the ${ }^{\prime} \varphi \rho \omega s$ of philosophy for the regeneration of mankind, but to another sort of ${ }^{\prime} \rho \rho \omega s$, viz. passionate feeling for the ordinary virtues; and, as we have seen, all feeling per se is blind!
(c) The gloom which had settled upon the mind of the optimistic author of the Pbaedrus, Symposium, and Republic may be illustrated by the following references.

After the Athenian stranger has set forth a system of rules for the regulation of education and conduct, and the production of the modes of feeling which conduce to the several ennobling virtues, he proceeds ${ }^{2}$ substantially as follows: The affairs of men are indeed not worthy of serious consideration, yet we must consider them seriouslysuch is our hard lot. How else shall we best steer our course in the voyage of life? God is, no doubt, worthy of all reverence-aye, and of felicitation; but man, as we have said ${ }^{3}$, is only a sort of plaything of God-a mechanically constructed toy; and indeed this is the best thing that can be said of him, that he is God's toy. Accordingly, we shall run our several courses in life most wisely if, following the rules laid down above, we, as God's playthings, play out our parts in all seriousness, as well as we can ${ }^{4}$. It is a common but mistaken notion

[^42]that our sports and pastimes are the end to which our serious labours are subordinate. The fact, however, is that our sports are subordinated to ends which for us are highly serious, but for the gods are the highest form of amusement. As prudent men we must strive to please the gods, our masters; but as philosophers we must also know that our gravest virtues are but $\pi \alpha \iota \delta \omega \alpha i$ к $\dot{d} \lambda \lambda \iota \sigma \tau \alpha \iota$ for the gods. To know that, by playing our parts well, we can render the gods propitious ${ }^{1}$ to us is to have a glimpse of a vitally important truth; for we, being the wondrous handiwork of God, are capable of some glimpses of truth ${ }^{2}$.

Struck (as he well might be) with the grim irony of all this, Megillus ${ }^{3}$ exclaims: ' O Stranger, you draw an utterly degrading picture of our common humanity!' to which the Athenian answers: ' Be not surprised, Megillus, but forgive me. What I have said of man's lot, I said under the influence of emotion, while I compared man with God. However, if you wish, I will allow that our race is not so vile-that it is, after all, indeed, worthy of some serious consideration.' Thus the shaft is driven home; for this reply only serves to assure us how deliberately, and with what depth of purpose, the words complained of had been spoken.

Life is such that death is far better ${ }^{4}$ is one lesson of the Lawes. 'The God of death is the best friend of our race,' says Plato here, quite in the vein of $\delta$ $\pi \epsilon \epsilon \sigma$ 的vatos. The religious exhortations which succeed ${ }^{5}$ in Book $x$ can have little effect as an antidote to the saddening words which have gone before. That the gods exist and care for man is indeed stated; but the comfort of this statement has been cancelled in advance; for is not man a $\pi$ aírvoo $\theta$ $\theta o u$ ? Lastly, in the Laws ${ }^{6}$, and there only,

[^43]
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Plato abandons himself to the belief in an evil as well as a good world-soul.

This strain of utterance implies pessimism of every type-intellectual, moral, and religious. It might almost seem as if Plato's strong faith in the power of human reason had begun to give way, and his idealism to lose something of its buoyancy under his growing sense of the part played in human life by the surd, inarticulate, but fundamental element of feeling.

John I. Beare.

## NOTES ON CICERO $A D$ ATTIGUM XI

The battle of Pharsalia was fought on August 9 (of the unreformed Calendar $=$ June 6) in 48 в.с. Cicero was not present at the battle (Fam. ix. 18.2) but had remained at Dyrrhachium, where Cato had been left in command. About August 14 Labienus brought news of the defeat to that place, and it was evacuated at once amid a somewhat lurid scene (Cic. De Divin. i. 68). The Pompeians repaired to the head-quarters of their fleet at Corcyra, and there held a council of war. Cato wanted to resign the command to Cicero as the eldest consular, but Cicero refused (Plut. Cic. 39: Cat. 55). At that council Cicero no doubt urged the discontinuance of the war on the same grounds as he afterwards stated in a letter to Marius: viz., that Pompey's imperfectly trained forces were now after defeat less than ever a match for Caesar's veterans (cp. 9. $\mathrm{I}^{1}$ ), and he may have set forth the many disastrous alternatives involved in still offering resistance ${ }^{2}$. Young Pompey was very indignant, called him a traitor, and wanted to kill him: but he was saved by Cato (Plut. Cic. 39). This was in the latter half of August. Cicero with his brother Quintus, who appears to have joined them at Corcyra-he was not in Dyrrhachium when the town was evacuated (De Div. i. 68), but there does not seem to be evidence that he was at the battle of Pharsalia -retired to Patrae, where they remained for about a month. A serious breach of friendship occurred between the two brothers almost immediately after they met (initio navigationis, 9.2 ), one of the grounds certainly being that

[^44]Cicero had not given Quintus a share of his Asiatic treasure (13.4, cp. 1. 2: Fam. v. 20. 5 and 9) : but all that treasure, $2,200,000$ sesterces, had been put by Cicero at Pompey's disposal early in the year, and Cicero says Quintus had never asked for any share of it before. No doubt there were other recriminations, and we can well credit the statement that the passionate Quintus urged them with extreme bitterness (12. I) and continued to vilify Marcus (8. 2: 9. $2:$ : if. $2:$ 14.3: 36.4$)^{1}$ : but, with characteristic impetuousness, he congratulated Marcus later on when Caesar wrote a friendly letter to him (23.2). Even young Quintus composed an invective against his uncle to be delivered before Caesar (10. I). Possibly some time in September Cicero may have received from Dolabella the letter in which was contained the statement that Caesar advised Cicero to go to Italy and stay there ${ }^{2}$. The arrival of the Pompeians under Fufius Calenus at Patrae (Dio Cass. xlii. I 3.3) in the latter part of September may have decided Cicero to adopt Dolabella's advice. He probably left Patrae, which was about ten days' journey from Brundisium, about the beginning of October and arrived there towards the middle of the month. Indeed the first letter from Brundisium which we have is dated November 4 (Fam. xiv. 12) : but it is plainly a reply to a letter which Terentia had despatched from Rome immediately after receiving information from her husband that he had arrived in Italy: and the same seems to have been the case with Att. xi. 5, which was probably also written on November $4^{3}$ in reply to a similar letter from Atticus.

[^45]From the middle of October, 48, till September 25, 47, when Caesar returned to Italy and pardoned Cicero in his most courteous style (Plut. Cic. 39), Cicero remained in Brundisium: and it was one of the most dismal and anxious periods of his life. His main trouble was his own political position : he had deserted the Pompeians and yet was far from being assured that Caesar would not treat him like any other Pompeian: but his distress of mind was aggravated by the consciousness that, even though he had acted prudently in ceasing from active resistance to Caesar, it was uncertain whether his coming to Italy was a wise course ${ }^{1}$, and in any case he had certainly not acted a heroic part, and had in some degree in his actions been untrue to his principles as an optimate. He would fain not forfeit wholly the good opinion of the boni (7.3, cp. 21.3). This source of anxiety became especially acute during the early months of the next year, when Caesar's fortunes seemed to be turning (16. 1)-when Caesar himself had got into more than one kind of false and dangerous position in Alexandria, when Domitius had been defeated by Pharnaces, Gabinius had been unsuccessful in Illyria, Cassius Longinus had become unpopular in Spain, when there was much confusion and disaffection in Rome and Italy, and above all when the Pompeians were gathering together a very formidable host in Africa ${ }^{2}$. The quarrel with Quintus weighed heavily on him too, though he magnanimously wrote to Caesar (who considered that it was Quintus who was the trumpet that called Marcus to the Pompeian camp) exculpating Quintus on that score, saying that Quintus rather followed than led him, and had always urged his joining Caesar's side

[^46](I2. 2) : and he thinks sadly how he would act on behalf of Quintus if he had the influence with Caesar which Quintus now had (7.7). Cicero's finances, too, were as usual in a disordered state: indeed he seems never to have been quite clear how he stood. Certainly at this time he was very straitened for money, so much so that sometimes he was in want for even the necessary expenses of himself and his family (1. 2:14.3:2I. I: 23.3:25.3) : and Terentia, along with her freedman and steward Philotimus, appears to have acted selfishly and dishonestly in money matters during Cicero's absence ${ }^{1}$, and especially in respect of a will which she made at this time in which, as we may gather, she did not make proper provision for her children (2.2: 16. 5: 23. I: 24.2, 3). To crown all, Dolabella, the young husband of Cicero's much-loved daughter Tullia ${ }^{2}$, was acting most outrageously, not only by his political actions (12.4:23.3), but also by most open and notorious profligacy ( $23.3: \mathrm{cp} .15 \cdot 3$ ) : so that it seemed necessary in point of honour that a divorce should be effected (23.3), to say nothing of the pecuniary loss which Cicero had incurred in the part payment of her dowry, which he would be quite unable to recover from Dolabella (25.3). 'Every kind of misfortune,' he says (II. 2: cp. 15.2), 'I have to bear and expect': yet in his general humiliation he is ever blaming himself, and not his ill-fortune (9. I: if. i, 2: 15.2: 16. 2: 2 I. 3 : 24. I: 25. I). He was not in good health (5.3) when he came to Brundisium, and the climate of the place was notoriously bad (21.2:22.2:cp. Caes. B. C. iii. 2. 3), so that during the whole year he was most afflicted in mind and body (22.2). At times he seems to fear that all his and Terentia's property will be confiscated and that they will have to go somewhere into exile (9.3). Once he hints at suicide, or at least that he will soon be dead

[^47](25. I). No wonder then that we find an utter lack of spirit in the letters of this period-and even, as in the letters from exile, occasionally a certain imperfection in expression ${ }^{1}$. Looking at the whole circumstances of Cicero's case one cannot but feel sincere pity for the sufferings of this good man, who always shone in times of peace but was too sensitive and scrupulous for that cruel age and who certainly was, as the Epitomist of Livy says (Epit. cxi.), nihil minus quam ad bella natus. On the letters he wrote to Atticus during this period a few notes are subjoined. (The letters of $A t t$. xi. are in chronological order up to Ep. 18: after that the chronological order is $25,23,19,24,20,21,22$.)
6. 2. Quare voluntatis me meae nunquam paenitebit, consili paenitet. In oppido aliquo mallem resedisse quoad arcesserer: minus sermonis subiissem, minus accepissem doloris, ipsum hoc me non angeret. Brundisi iacere in omnis partis est molestum. Propius accedere, ut suades, quomodo sine lictoribus quos populus dedit possum?... quos ego non paulisper cum bacillis in turbam conieci ad oppidum accedens.

Cicero does not regret his purpose (voluntatis) of retiring from arms in the conflict with Caesar, but he does regret the course he adopted (consili) of coming to Italy. He wishes he had settled down in some extraItalian town until he was summoned to Italy. He must have considered Caesar's verbal suggestion to Dolabella to

[^48]write to him and tell him to return to Italy (cp. 7. 2) as insufficient, though in after times he speaks of this as a definite order of Caesar's (Phil. ii. 5), and he was painfully conscious that the grants of an autocrat could always be revoked (20. I). He wishes he had not come to Italy, as often during the succeeding months (see above, p. 3 n. i). At first sight the word aliguo excites suspicion, as one wants a definite antithesis to Brundisi; and one feels inclined to alter to Achaico. If the first syllable were lost (as in alia for Italia, 10.2 : quos for aliquos, 13 fin.) -aico might have been corrupted into aliquo. But the words resedisse and remansissem (§3) and arcesserer sufficiently imply that the town was across the sea : so no alteration is necessary. Cicero's coming to Italy is ipsum hoc. For propius accedere of going nearer Rome, cp. 5. 2: 20. 2 : 22. 2. Nearly all editors adopt munc for non, as was suggested by Tunstall. It is most unlikely ; for Cicero was in Brundisium since the middle of October, and this letter was written on November 27. Non is omitted by Lehmann. Sternkopf (Zur Cbronologie und Erklärung der Briefe Ciceros aus 48 und 47, Dortmund Program, 1891, p. 23) joins it closely with paulisper, non-paulisper, ' for a good while,' lit. ' not for a little while.' But Cicero would more probably have said aliquantisper or more simply diu. I think that Lehmann's view is right. The corruption may have arisen from an attempted correction of paulisper into nuper, nu having been written above paulis- and subsequently getting into the text in an altered form. Non is sometimes added erroneously in codices, e.g. Att. ii. 23. 3 [non] ingrederis. Müller gives many examples in his critical note on p. 84. 27 of his ed. of Att. and P. 3. 32 of Fam.
6. 6. Sed velim haec aliquando solutiore animo.

What is the ellipse? tecum loqui vel ad te scribere (Corradus) : disseramus (Watson) : so too Shuckburgh ('I should like to talk over this some time or other when my mind is more at ease') and cp. Heidemann (De Ciceronis in epp. verborum ellipsis usu) p. 83 for this ellipse, which is
common in such phrases as Sed haec coram (Att. ii. 17. 3) and often. But Heidemann (p. 67) puts this passage in the same category as $A t t$. xiv. 20. 2, De regina velim atque etiam de Caesare illo, supposing that it is a part of scribere that is omitted (there the omission being scribas, here scribam as in Fam. vii. 30. 2, sed haec alias pluribus). But the meaning hardly is 'I can wish that I may be able to dwell on this topic in a less distracted state of mind,' but rather 'I can wish that these deliverances of the Pompeians may sometime become less intense and overstrained': so that we should supply dicantur: cp. such passages as $A t t$. v. 2 I. II, multa de syngrapha sc. dicta sunt. For an action said to be done animo cp. Fam. vi. 7. i, non tam interest quo animo [liber] scribatur.
7. I. Et [MSS. ea] factum igitur tu [MSS. ut $]$ scribis istis placere (et placere) isdem istis lictoribus me uti quod concessum Sestio sit: cui non puto suos esse concessos sed ab ipso datos. Audio enim eum ea senatus consulta improbare quae post discessum tribunorum facta sunt. Quare poterit, si volet sibi constare, nostros lictores comprobare.

The corrections and addition are due to Sternkopf (op. cit. p. 25).

Cicero's argument seems to be this. Balbus and Oppius (you say) approve of my retaining my lictors, as a similar permission has been granted to Sestius; but Sestius's lictors cannot be regarded as having belonged to him by virtue of his imperium prior to the order of Caesar, but to have been lictors subsequently granted to him by Caesar. For Caesar disallows all the decrees of the Senate after the departure of the tribunes (on January 7, 49), and Sestius did not get his imperium until after that date. But the fact that Caesar disallows the decrees posterior to that date may be taken as evidence that he allows that all the decrees prior to the same date are legal and in due form : therefore he should, in order to be consistent, allow me to retain my lictors. Sestius was intended to be the successor of Cicero in Cilicia; and he does appear to have gone
there in the autumn of 50 ，cp．Fam．v．20．5．But during all the latter part of that year no legal and formal assigna－ tion of the provinces seems to have been made，cp．Att．vii． 7． 5 （about Dec．20，50）：Senatum bonum putas per quem sine imperio provinciae sunt（nunquam enim Curio sustinuisset si cum eo agi coeptum esset：quam sententiam senatus sequi noluit），cp．Fam．viii．I 3． 2 and 8． 6. Accordingly Sestius had not the imperium during his visit to Cilicia．He was back again in Italy in January 49 ， cp．Att．vii．17． 2 ：and it is stated in Att．viii．15．3， written on March 3，49，that he then had the imperium． So it is probable that he，and perhaps two others mentioned in that passage（Fannius and Voconius），obtained their imperium within the first two months of the year，after Jan．7，when the senatus consultum ultimum had been passed． Hence it is quite excusable that Plutarch（Brut．4）should consider that Sestius was governor of Cilicia in the latter part of 50．He says of Brutus：єis Kı入ıкià［MSS．$\Sigma_{\iota \kappa є \lambda i \alpha \nu \nu: ~}^{\text {i }}$

 only for a short time，though not strictly de iure．

7．3．Hic opus est casu ut aliqui sint ex eis aut si potest omnes qui salutem anteponant．

Boot says that with anteponant we must understand some word like honestati or gloriae or officio，and that Cicero naturally does not express it．But anteponant is quite general：＇give the preference to，＇＇put first＇－if anything is to be supplied in thought it would be omnibus rebus （cp．Leg．Agr．ii．9：Att．ii．I6．3）—the special idea being that of preferring safety to a desperate and uncertain struggle．There is one other passage at least in the Letters in which anteponere is found without a dative， viz．Att．xiv．I 3．I：est mehercule utriusque loci tanta amoenitas ut dubitem utra anteponenda sit，where perhaps we should read utra 〈utri〉 anteponenda sit．It is also used without a dative expressed in Fin．ii． 38.

8．2．Furnius est illic mihi inimicissimus．

Illic means at Alexandria, where Caesar was. Editors reject Furnius: for the only Furnius mentioned in Cicero's Epistles was always his close friend. Manutius altered to Fufius, i.e. Fufius Calenus, the life-long enemy of Cicero. But at this time Fufius was governor in Achaia (cp. 15.2: 16. 2: Caes. B. C. iii. 55), where he plainly had enough to do to watch the Pompeians in that province. It is hardly likely that he would have made the long journey to Alexandria, and even if he did he would not have made a protracted stay there, as est would seem to indicate. I would suggest Furius, i.e., Furius Crassipes, Cicero's former son-in-law. His relations with Cicero had recently been strained. Hirrus and Crassipes were the only two friends to whom Cicero did not write requesting them to support the vote for his supplicatio (Att. vii. I. 8). He visited Cicero at Formiae in the middle of March 49, having apparently abandoned the Pompeian side (Att. ix. II. 3). It was natural that he should be at Alexandria with Caesar. It is true that Cicero always elsewhere calls him Crassipes and not Furius: but such varieties of nomenclature sometimes occur, e.g. in the case of that very Fufius Calenus. Cicero elsewhere in his correspondence calls him Fufus, but in Att. xvi. i i. i he calls him Calenus : and there is considerable variety in the case of the same man within a single chapter of Caesar (B.C. iii. 55). The brother of Pilia, wife of Atticus, Q. Pilius Celer, appears in Cicero's correspondence as Q. Pilius (Att. iv. I 8. 5) ; Pilius (ad Brut. ii. 5. 4) ; Celer Pilius (ib. §3) : Q. Celer (Att. vi. 3. Io) : and Celer often (Att. x. I. 4: xi. 4. I : xii. 8).
9. I. nec in ulla sum spe, quippe qui exceptionibus edictorum retinear quae si non essent sedulitate et benevolente ualiceret (so M: W. gives benevolentiae qua liceret) mihi abire in solitudines aliquas.

The old correction was benevolentia tua, liceret: and Cicero does seem at this time occasionally to give vent to peevish complaints of the conduct of Atticus and other
friends, e.g. 22. 2: Quaeso attende et me, quod adhuc saepe rogatus non fecisti, consilio iuva: 25. I : miseriis et animi et corporis quibus proximi utinam mederi maluissent. But it is hard to believe that there would not have been plainer references elsewhere to this intervention of Atticus, and that Atticus would not have excused himself more than Cicero's letters at this time would warrant, if he had really been instrumental in getting this exception introduced. Sternkopf (op. cit. p. 31) very brilliantly suggests Va(tini), as Vatinius, who was a good-natured man on the whole, seems to have been on friendly terms with Cicero at this time (5.4:9. 2). O. E. Schmidt (Briefwechsel, p. 215 ) adopts this, comparing for similar truncated proper names $A t t$. ix. 18. 3, where he thinks that Pelanum (so M: Pedanum Malaspina) is a corruption of Ped $\langle i$ Norblanum. But this is very doubtful. We have no account given of the $q$ in qua of the Würzburg MS., and Cicero does not usually mention any people except his immediate family (Terentia, Tullia, Quintus father and son, etc.) by abbreviations. Corruptions due to loss of letters, too, generally are at the beginning, not the end of words in the manuscripts of the letters in this book. Sternkopf's other view that an ordinary adjective has been corrupted seems more probable. He suggested intempestiva. Rather perhaps prava. If it was written $p^{a} u a$ it might have passed into qua. The sedulitas et benevolentia prava was probably due to L. Lamia (7. 2), who was always a friend of Cicero's (cp. Fam. xi. 16. 2), and seems to have been on good terms also with Caesar and Balbus (Att. xiii. 45. I).

As to the person alluded to a little further on-Quid autem me iuvat quod ante initum tribunatum veni, si ipsum quod veni nihil iuvat? Iam quid sperem ab eo qui mihi amicus nunquam fuit, cum iam lege etiam sim confectus et oppressus-who was he? Caesar, say Corradus and Sternkopf, on account of illum following (multaeque [litterae] multorum ad illum fortasse contra me): but Cicero at this time often (7.7:8. 1: 15. 1: 16. 1, 2 :
17. 3: 18. 1: 21.2, 3: 25.2) alludes to Caesar as ille, the personage, without any precedent mention of him. And it was the interest of the subordinates of Caesar, not of Caesar himself, that Cicero was endeavouring to secure at this time: and the passing of the law-it was probably that which gave Caesar absolute power over the Pompeians to do what he liked with them: 'not that he had not such power already,' says Dio (xlii. 20), 'but it gave legal authorization to that power'-would not have made Caesar more ready to injure Cicero, but it would have made his subordinates less ready, until they were aware of Caesar's intentions, to do anything which would be very favourable to Cicero. O. E. Schmidt (Briefreechsel, p. 2 I6) thinks the reference is to Antony: for he considers it impossible that Cicero should say that Caesar was never a friend of his (though indeed Cicero's words may only mean that Caesar's apparent friendliness was always insincere) when one remembers his relation with Caesar in March, 49; and Antony was the person who had real command in Italy at this time, and had the power to alleviate or aggravate Cicero's distress. This is quite possible: but the reference to the tribunate and the association with Dolabella which that reference suggested make me think, as Boot holds, that it is to Dolabella that Cicero is referring. His friendship with Dolabella was becoming impaired owing to Dolabella's treatment of Tullia. It is noticeable too that though Dolabella had informed Cicero of Caesar's certainly verbal, and probably very vague, recommendation to return to Italy, Cicero did not ask Dolabella to assure Antony that Caesar had given such recommendation, but sent Lamia to him; and he does not appear to have asked for Dolabella's intervention in any way. It is true that Antony at the time (Dec. 48) was, as Judeich has shown (Caesar im Orient, pp. 182-3), in Campania, while Dolabella was probably in Rome: but at least Cicero would have got Dolabella to write to Antony, if he had been on friendly terms with him.

Cicero considers that his son-in-law had never been friendly with him, and will be less so now, when actually by law Cicero and all the Pompeians are placed absolutely at Caesar's mercy.
9. 2. Hic Ligurius furere: se enim scire summo illum in odio fuisse Caesaris, illum tamen non modo favisse sed etiam tantam illi pecuniam dedisse honoris mei causa.

That the first illum and illi refer to Quintus is plain: it is accordingly difficult to suppose that Caesar could be referred to by the intervening illum, though in 7.7 fin. we find illi and illum within a few words of each other referring to different people: Utinam illi qui prius illum viderint me apud eum velint adiutum-though the difference in number renders this less marked, and there is not a third ille referring to the original illi. We might perhaps attribute it to careless writing, as it is not always easy to keep the third personal pronoun strictly referring to the same person in oratio obliqua either in English or in Latin. Klotz and Müller let it pass: but Wesenberg reads eum, Peter and Baiter hunc. Perhaps we should read illi eum tamen or illi tamen eum. If eum had been originally omitted and added above tamen the corruption might have arisen.
14. 3. HS. xxx. potuisse mirarer, nisi multa de Fufidianis praediis. $\uparrow$ Et advideo tamen te exspecto, quem videre, si ullo modo $\dagger$ post enim res pervelim. Iam extremum concluditur: 中ibi facile est quid quale sit hic gravius existimare.

The last clause would seem to show that there was considerable disorder in this passage. It certainly looks as if we should read quod (so M : quid Z ) quale sit ibi (sc. at Rome) facile est, hic (sc. at Brundisium) gravius existimare. 'The final issue (cp. 25.3, mihi videtur adesse extremum) is reaching its end, the exact nature of which is easy for you at Rome to estimate, harder for us at Brundisium.' That advideo is a corruption of avide is also very probable, as the collocation avide exspecto

## L．C．PURSER

occurs elsewhere（Att．xvi．13 c，1：Fam．xii．4．2）．The ellipse of the verb with multa is distinctly harsh．For oost Bosius says that $Z$ has potest，and Bosius may be believed in what he says about that manuscript：so editors rightly adopt it，potest for potest fieri being quite common．（There is a somewhat similar ellipse in potuisse just before：＇I should have been surprised that there could have been（potuisse＝potuisse esse）thirty sestertia．＇） Out of enim res editors make a short parenthesis 〈est 〉 enim res，＇it is worth while＇（Bosius，Boot）：〈poscit enim res （Graevius，Baiter），or 〈postulat〉 enim res（Wesenberg）． But it seems unnecessary：Atticus would have been at a loss to know in what the specific urgency consisted． I think enim res is the remnant of venirent（or venissent） which has got out of place and should follow praediis． For venire in the sense of an inheritance coming to one， cp．Verr．iv．62：Hic Verres hereditatem sibi venisse arbitratus est：Caec．74，Phil．ii． 40.

17．I．Itaque＋ematiam cum primum per ipsam liceret，eram remissurus．

Bosius conjectured matri eam．O．E．Schmidt（Jabr－ buch，1897，p．597）thinks that as Cicero＇s relations with Terentia were strained at this time，and as Terentia does not appear to have acted well towards Tullia（cp．2．2）－ not to mention that Dolabella was in Rome at this time and her husband＇s house was the natural place for Tullia to go to－reads Egnatia eam．He would accompany her to Egnatia，and thence send her to Rome．But why should he accompany her just a small part of the way？ Lambinus（ed．I584）reads eam tibi iam＇I shall presently （iam）send her back to you when first she will let me．＇ Atticus had been so kind to her（6．4：7．6：17．i）that it was to him that Cicero said he would send her back． He would not send her to Dolabella，who had been behaving so scandalously，nor to Terentia，with whom he was on such bad terms just now．This seems to be the best reading to acquiesce in for the present．
17. I. Pro ea tque ad modum consolandis scripsisti putato ea (so Malaspina: P. tanta eo M) me scripsisse quae tu ipse intellegis responderi potuisse. Quod Oppium tecum etc.

In this 'locus conclamatus' possibly the reference is to a letter of Balbus, as Cicero goes on to speak of Caesar's other agent, Oppius, in the next sentence: and I would suggest some such alteration as this: Pro epistula quam ad modum consolationis scripsit iste, puto (or perhaps putato) tanta me scripsisse quae tu ipse intellegis responderi potuisse. Cicero may have sent the letter in question to Balbus by the same letter-carrier (tabellariis alienis) as he sent 17. I. Pro is used as in such phrases as par pro pari referre, Ter. Eun. 445. Cicero with some touch of irony refers to Balbus's letter as a studied formal specimen of the rhetorical exercise Consolatio (cp. Tusc. i. 115, in Consolatione Crantoris; cp. De Orat. ii. 50: iii. 21I). The letter of Balbus was no doubt full of platitudes and the common-places addressed to one in trouble. Or perhaps we might read consolandi, the gerund being taken for the action quite abstractly as in Orat. 237, quae duo sunt ad iudicandum levissima. The objection is that ad modum with a genitive is not, as far as I know, found in Cicero: but it is found in Quintilian, e.g. xi. 3. 120: utraque manu ad modum aliquid portantium composita.
19. 2. Philotimus dicitur Idib. Sext.

The ellipse is adfore, cp. Att. xiii. 2 1. 6: De Caesaris adventu scripsit ad me Balbus non ante Kalendas Sextilis, sc. eum adfore. Att. xvi. 4. I: Quintus altero die se aiebat, sc. adfore.
20. I. quod ego magis gauderem si ista nobis impetrata quicquam ad spem explorati haberent.

Boot says nobis depends on haberent and so should come either before ista or after impetrata. He is, I think, in error; cp. 22. 1: illud molestius istas impetrationes nostras ('these concessions to myself') nihil valere.
22. I. Nam quod te vereri scribis ne illi obsint eique rei mederi, ne rogari quidem se passus est de illo.

The archetype seems to have read negari quidem, corrected by Victorius to ne rogari quidem, which shows that the initial letters of words were at times omitted. As to mederi Madvig (Adv. Crit. iii. 188) is right that it was not Atticus who was trying to remedy the mischief to Quintus caused by the letters which Quintus wrote, but was urging that Cicero ought himself to do so; as indeed he did, e.g. 12. 2. Madvig accordingly reads eique rei $\langle m e$ vis (or iubes)〉 mederi. Perhaps the corruption will be more easily explained by supposing that the words $\langle m e$ debere) were lost after mederi.

A little further on we should probably read Pharnaces item (for autem). An additional reason is given why Pharnaces will cause delay.
24. I. Quae dudum ad me et quae etiam ad me bis ad [so Z (teste Bosio) : ad me visat M] Tulliam de me scripsisti, ea sentio esse vera.

Victorius reads ante bis ad. Wesenberg simply omits ad me. Lehmann (Quaest. Tull. p. io i) suggests ad me et -quae etiam ad me vis-ad Tulliam. He supposes that Atticus may have said in writing to Tullia,' You will show this to your father.' Sternkopf (op. cit. p. 40) reads eadem bis. Müller gives ad meos, id est ad Tulliam. Possibly we should reject ad me bis as a gloss: ad me had been written twice, and this was noticed in the margin, a note which subsequently was incorporated in the text. Glosses are occasionally found in the text of the letters: see Sjögren (Commentationes Tullianae, p. i 55 ff.).
24. 2. Vide quaeso etiam nunc de testamento quod tum factum est cum illa querere coeperat.

The usual correction of querere is that of Pius, haerere, 'to get into difficulties.' Terentia had got into money difficulties and apparently had to make provision in her will for her creditors. This is very ingenious. Somewhat the same idea might perhaps be obtained by
reading quaerere. That word has the meaning of endeavouring to make money, cp. Hor. Epp. i. 7. 57: et properare loco et cessare et quaerere et uti; $A . P$. 170: quaerit (senex), et inventis miser abstinet, somewhat as, we should say 'to go into business' or 'to speculate.' If Terentia borrowed money to speculate with, she may have been required to secure her creditors by making a will in their favour. But perhaps this is not the meaning at all: and we should alter to queri de me, as has been suggested by an anonymous scholar, a suggestion which Miiller, however, considers hardly worthy of mention; but when relations between Terentia and her husband became strained she may well have been induced to make a testamentum inofficiosum.
24. 2. poteris eam monere ut alicui committat (sc. testamentum) cuius extra periculum huius belli fortuna sit. Equidem tibi potissimum velim, si idem illa vellet, quam quidem celo miseram me hoc timere.

It is hard to take illa as referring to anyone except Terentia, who is meant in eam. Yet Cicero's feelings towards his wife were more than cold at this time, so that he would hardly show towards her the tender solicitude indicated by the next clause. (For the strained relations of Cicero and Terentia at this time see O. E. Schmidt, Neue Jahrbücher fiur das klassische Alterthum (1898), pp. 180-185.) So illa should probably be corrected to Tullia, another possible example of initial letters being lost. Tullia was with Cicero at this time (cp. 21. 2): but he would not mention the matter to her until he had obtained a promise from Atticus to take charge of the will: thus too he would stave off for a time the distress it would cause him to add yet another anxiety to Tullia's load of trouble by telling her of the danger which was involved if the will were not in the custody of one whose property was not liable to confiscation, as Cicero feared Terentia's was (cp. 9. 3).
24. 3. Scripseras ut HS. xir. permutaret, tantum esse
reliquum de argento: misit illa ccioo mihi et ascripsit tantum esse reliquum.

Editors since Corradus have altered permutaret to permutarem. This is hardly necessary: either the person who receives the money (Att. v. 15. 2), or the person who supplies the money (Att. xvi. I. 5), is said permutare. Atticus wrote to Terentia to send a note of credit (a cheque as we would say) for twelve thousand sesterces, that this was the balance. The money was doubtless Terentia's, or at any rate standing to her credit, so that she should give the authorization for payment. We read of her before supplying her husband with money for necessary expenses (11. 2): id quoque velim cum illa videas ut sit qui utamur.
25. 3. Quod ad te iampridem de testamento scripsi apud $\dagger$ epistolas velim ut possim adversas $\dagger$.

That the reference is to the safe-keeping of Terentia's will seems almost certain : hence Wesenberg conjectured adservari for adversas, which may have been corrupted when epistolas was developed out of whatever may be the reading it conceals. Bosius thought of a Greek word, apud єünıoтov illas velim; ut possint advertas, and this єن́л $\tau \sigma \tau \sigma \nu$ has met with much favour. But in the letters, both from Brundisium and previously from exile, when Cicero was in deep depression, he does not use Greek words at all. This $\epsilon u ้ \pi \iota \sigma \tau o \nu$, as Müller says, is $\delta \nu \sigma \pi \iota \sigma \tau \delta^{\prime}-$ тatov. O. E. Schmidt (N. Jabrb. für das klass. Alt. p. 183) proposes to add several words, apud aliquem (cuius fortuna extra periculum sit) velim ut possit adservari; comparing 24.2 : At poteris eam monere ut alicui committat cuius extra periculum huius belli fortuna sit. Equidem tibi potissimum velim. This passage should certainly be compared: and it leads one to think that ut possim should not be altered to ut possit or ut possint, but is a corruption of potissimum. I should suggest apud te tabulas (so Wesenberg conjectured) velim potissimum adservari.

In the next clause facultate may be a corruption of facilitate, 'easiness of disposition,' ' patience,' єикодía. It distracted Cicero, who was always full of complaining and indignation, that Tullia took all her misfortunes so calmly and gently. He marvelled that she did not exclaim with him against their enemies. For this use of facilitas cp. Off. i. 88 , in liberis vero populis et in iuris aequabilitate exercenda etiam est facilitas et altitudo animi quae dicitur, ne, si irascamur aut intempestive accedentibus aut impudenter rogantibus, in morositatem inutilem et odiosam incidamus. The altitudo animi in this passage is the $\beta a \theta i \boldsymbol{j} n \mathrm{~s}$ of the Epistles (Att. iv. 6. 3: v. 10. 3: vi. 1. 2), 'self-restraint,' cp. Part. Orat. 77, altitudo animi in capiendis incommodis et maxime iniuriis. Tullia appears to have been a calm, loving, gentle creature, trained in the school of misfortune, which she bore with quiet courage, cp. Att. x. 8. 9 : cuius quidem virtus mirifica: quomodo illa fert publicam cladem! quomodo domesticas tricas! quantus autem animus in discessu nostro! Est $\sigma \tau o \rho \gamma \gamma^{\prime}$, est summa $\sigma \dot{v} v \tau \eta \xi!s$. Tamen nos recte facere et bene audire vult (cp. ix. 6. 4). Cicero could not but think that her like had never been found: cp. what he says about Porcia, ad Brut. i. 9. 2, id enim amisisti cui simile in terris nihil fuit.
25.3. Te oro, ut in perditis rebus, si quid cogi, confici potest, quod sit in tuto ex argento atque (teque codd.: corr. Schütz) satis multa ex supellectile, des operam.

Mr Shuckburgh translates, 'if any money can be collected and got together and put in safe hands from sale of plate and the fairly abundant furniture.' I doubt if satis multa is ablative with supellectile; the order of words is against it. Rather Cicero means: 'if a fairly large sum of money can be got from the sale of the furniture.' The furniture should not be sold unless a good price could be got for it. But it would be better to supply si before satis than to carry on the si from si quid. For si omitted, cp. 19. I.
L. C. Purser.

## ARISTOTLE'S THEORY OF POETIC METRE

There is a passage near the commencement of the Poetics which is evidently of great importance for the student of Greek metre, and moreover cuts down deeply into Aristotle's whole theory of poetry in the largest sense. The passage has a curious history. It is the object of the present paper to show that it has a simple and natural meaning, although the treatment it has generally received from commentators (including unfortunately the latest English ones) has rendered it fairly hopeless in its perplexity.

The passage is as follows (I give the readings of Codex A, and of Margoliouth, with the exception of one word which is relatively unimportant and does not affect my argument) :












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 $\pi \rho о \sigma a \gamma о \rho є ч \tau$ є́ov.

The first thing to consider is the context of this passage.

Aristotle is commencing his treatise on poetry, and rightly devotes himself to the business of classification. His first words are $\pi \epsilon \rho i \pi o \not n \tau \epsilon \kappa \hat{\eta} s \alpha u ̈ \tau \hat{\eta} s \tau \epsilon \kappa \alpha i \tau \bar{\omega} \nu \epsilon i \delta \bar{\omega} \nu$ $\alpha u \dot{v} \hat{n} s$. He mentions that his aim is partly practical
 $\dot{\eta} \pi o i \eta \sigma \iota s$, and in any case his method will be empirical. In all science classification is of the highest moment and never more so than where, as in the present instance, new ground is being broken up. We must never lose sight of the fact that Aristotle's philosophy is pioneer work, and it is so just because in it he follows his analytical method constantly and surely. Plato had no doubt worked over much of the ground, but he left to his less imaginative pupil the part of planting the seed systematically.

And Aristotle's system will always be found to consist in passing from what is better to what is less known. He assumes certain postulates because they appear to his mind to be practically self-evident. It may however be pointed out in passing that in regard to such postulates a more critical stage of science will often question the truth of propositions which in an unsophisticated period have passed as clear beyond need of discussion. We do not propose to criticise the doctrine of Aristotle, but merely to enucleate it. The points which appear to be postulated in the present instance are as follows:
I. All Poetry, and indeed all Art, is essentially $\mu^{\prime} \mu \eta \sigma t s$, i.e. Representation of some pre-existing thing or idea. This then is to be taken as the basis of the classification.

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It is in fact the genus, of which we have to mark the species by discovering the differentiæ.
2. There is however another element. The very existence of Poetry can only be explained by universal natural instincts, and these are two-fold-the Love of Representation and the Love of Rhythm. The Philosopher

3. Special forms may in common use be associated so closely with special branches of poetry as to be practically identified with them. But in such cases we ougbt to avoid confusion of the accidental with the substantial.

If then $\mu^{\prime} \mu \eta \sigma \iota s$ is to be the true basis of classification, how is it to be applied in the enquiry? Simply by considering its actual method. It may be more simple or less so. It may address itself to a single faculty or to more than one. Its medium is of course normally languagebut there may be also accessory media, the presence or absence of which may become a crucial test of different species of poetry. If musical interpretation be added to the art of language, if scenic display, including what we call dumb-show, be also added, then new forms of art will emerge which will be properly included in the classification we seek. To our minds the objection is obvious that these accessories, however important if considered emotionally, are yet foreign to the essence of poetry as we conceive it-did this objection arise in the mind of Aristotle? It seems not, for he does not proceed to argue the question, at least in this place. It would be an interesting problem to discuss why he takes for granted a crucial point which is by no means self-evident to us; but this would take us away from our aim, which is merely to enquire what Aristotle teaches, and not into the why and the wherefore of his teaching. It may however be suggested in passing that his use of the word $\dot{\rho} u \theta \mu o s$ in this passage to express what would more

[^50]ordinarily be expressed in Greek by ó $\neq \eta \sigma$ os is perhaps due to his desire to connect this dumb-show with the essence of poetry. Certainly he held that $\dot{\rho u \theta \mu o{ }^{\prime} \text { in its }}$ ordinary sense is essential to poetry.

If this last proposition cannot be admitted, then the passage in question is, to my mind anyhow, unintelligible. But I find that Aristotle always takes this principle for granted as something quite self-evident. It is simply because he is unconscious that there can be any controversy on the point that he never controverts it. He is entirely taken up with another question, which he recognises as highly controversial. To deal with this he girds his loins, for he knows well that he has against him the commonly prevailing opinion of his fellow men. It is the question not of the existence of rhythm or metre as a necessary element in poetry; but of its relative importance in the true classification of poetic forms.

We may now return to the passage and state what appears to be its only possible interpretation. Then, before arguing in favour of this, it will be necessary to describe as briefly as possible the history of the extraordinary contortions to which the passage has been subjected at the hands of commentators.

I take the meaning of the passage to be: 'Epic poetry is the only class which employs language stript of accessories, metrical language of course, and it does so whether it combine different metres together or whether it employ one sort only-doing the latter indeed up to our time, but only as a mere matter of accident. I say this use of hexameters is accidental and not essential, because we could not embrace in a common appellation all sorts of compositions, like the Mimes of Sophron and Xenarchus and the Socratic Dialogues-not even though the themes should be represented in trimeters or elegiacs, or any other such metres; much less if they should be represented in the epic metre. Whereas ordinary persons connecting the representation with the name of a special metre call one class
elegy-poets and another epic-poets, naming them not according to the representation of their several themes, but merely according to the metres they employ. They even go so far in this that they apply their nomenclature to a treatise on Medicine or Natural Science if they should happen to produce such in a metrical form, e.g. they call it an epic poem (although there is nothing common to the epic poet Homer and the Scientist Empedocles, except the use of the same so-called epic metre; wherefore one of these only should be called a Poet or Composer, and the other a Writer-on-Natural-Science). Or to put the same doctrine in another form if one should compose his Representation by mixing together different metres (as Chaeremon actually wrote his Kentauros as a declamation mingled from all kinds of metre), him also we should properly rank among the Epic poets.'

The above version is intelligible and straightforward. Certain connexions of thought are printed in italics, as they would be added in ordinary modern style, though it is according to Aristotle's style to omit them. If the passage is however read without the italics it is still fairly intelligible with the exception perhaps of the first set of italics. If they are omitted, it is true the passage will not be intelligible, unless we bear in mind what is the main controversial theme of the writer. And I suppose this to have been so strongly before his own mind that he did not advert to the necessity of being more explicit in stating it.

Is there then no further difficulty? Certainly there is, and it all arises from the words in the first line, iो tois métposs. Hinc illae lacrymae. The confusion arising from these words is indeed something marvellous, though not altogether unnatural. It is obvious that (considering the usual disjunctive force of the particle $\hat{\eta}$ ) the words appear to mean 'or else by means of metres,' and therefore to be opposed to the preceding words rois $\lambda$ óroos $\psi$ w inois, which would thus signify Prose.

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Twyning, writing in 1789 , translated the passage in this sense, and in his notes added ${ }^{1}$ ' In my translation of this perplexing passage I have given the sense which is now generally adopted, and in which almost all the commentators are agreed.'

But he had too penetrating a mind to be satisfied, and he proceeds to argue strongly through a dozen pages against a view which makes Aristotle 'advance a doctrine so new and so repugnant to the prevailing ideas of his own times that a species of poetry might subsist without verse.' In the end, however, he states (and rightly from his premises), that the true meaning of the passage has not been and never will be discovered. Tyrwhitt ${ }^{2}$ on the other hand, who like Twyning was no mean scholar and moreover has the advantage of being far more concise in his commentary, is more thorough and consistent. He translates $\hat{\eta}$ тois $\mu \dot{\epsilon} \tau \rho o \iota s$ by 'sive metris,' thus cutting the Gordian knot. In a note he adds, 'ex his [verbis] nonnulli concluserunt poema epicum, secundum mentem $A$. in prosa condi posse. Sed perperam.' He then declares that the particle $\hat{\eta}$ can have a force 'explanandi sive declarandi,' and quotes the words $\lambda o{ }^{\prime} \gamma o u s ~ \ddot{\eta} \mu \dot{\prime} \theta_{0 u s}{ }^{3}$ in the middle of Chapter v.

Then the trouble began to grow. It was soon discovered (I have quoted the perspicacious Twyning) that
 verse' the whole passage becomes confused and confusing. So the commentators began to rewrite it. They discovered first that there was a gap at the end of the first sentence of the passage which they filled up from the succeeding words-suggesting that the word dُvévumos had fallen out. This was the work of Bernays in 1858, but Vahlen in all

[^51]his editions ( $1865-1885$ ) adopted it ; and hence it passed into the vulgate. Aristotle now was understood to mean that Epic Poetry (taken so as to include prose and verse compositions) is a form of literature which is hitherto short of a common title. The joy that Editors found in this reading blinded them to the fact that it contains a patent contradiction in terms, and is therefore what we should call in a less dignified context simple 'bosh.' Ueberweg however found a heroic remedy ( 1870 ). The new predicate shall be kept-but the subject of the sentence shall be dropped. This method of emendation reminds one of the derivation of cheval from hippos. Change hip into chev and pos into $a l$. For it is clear that we could equally change any one sentence into any other, e.g. 'the enemy were short of provisions' into 'the gardener's aunt has a toothache.'

And now a curious thing happened. The Arab paraphrase of the Poetics came to light and was at once claimed as a confirmation of these strange emendations. Against those who defended the MS. text this authority was quoted as final; and the case has been referred to again and again as a palmary instance of critical acumen confirmed by an unexpected and very lucky piece of evidence. The Editor of the version, Professor Margoliouth, was naturally amongst those who so treated the case. For myself though I had great confidence in his scholarship, especially in regard to the Arab language which is his native tongue, I must confess with sorrow that I was not a little sceptical. The so-called version was known to be at best a loose reproduction of the original, without critical value; and of course there would be room for elasticity in interpreting such a text with a pre-conceived idea of what it should convey according to an emendation of wide acceptance. About seven or eight years ago however I had an opportunity of consulting an Arabic scholar of some eminence who kindly inspected for me the transcription which
is in Trinity College, Dublin, with the result that my misgivings were removed. The fact of the confirmation of Vahlen's text was established, and hence for a time I began like Twyning (who of course knew nothing of the Arab text) to believe that the mystery was insoluble. Later on I thought I saw an explanation. When Aristotle's text is wrongly read, the emendation of àvévvuos is so obvious that it appeared not merely possible, but even antecedently likely, that different commentators should have hit upon it independently. This was perhaps desperate but nevertheless it was the only possible hypothesis! Butcher (1895) had followed Vahlen almost as a matter of course-anyhow without comment. What is stranger, Bywater accepted it in his critical edition (1897) and one naturally awaited with great interest his long-expected commentary to see how an editor of such acknowledged weight would deal with the offending text which he had adopted as his own.

When the extremely valuable edition appeared (1909), it was found that Bywater followed a sort of 'via media.' In a long and learned review of the passage (extending over seven pages of a closely printed commentary) he entirely rejects the view hitherto maintained in support of the emended text, that $\lambda$ óros means prose, and $\psi i \lambda$ òs 'stript of metre.' Lózos means 'language as such' (as we have maintained), and $\psi i \lambda o{ }^{\prime}=\chi \omega \rho$ is cipuovias (we should add каi ó $\rho \chi$ णi $\sigma \epsilon \omega \mathrm{s})$. Moreover he understands the passage about Sophron and Plato as we do, that is, directly and not as a 'reductio ad absurdum.' So that really his view of the passage approximates to what I would call the simple and straightforward interpretation as opposed to an artificial and contorted one. Yet he is under the
 commentator), and this he has defended with considerable insistence. Thus in spite of the removal of the chief grounds for the strange emendations, they are allowed to encumber his page. This attitude was not wholly
without encouragement, but it was all the same disappointing. 'And the little less and what worlds away!'

Then last year appeared Professor Margoliouth's own brilliant work on the Poetics ${ }^{1}$; I turned to the passage, but I confess rather languidly. Had he not been the chief bulwark of the intrusive readings? And if Bywater after practically giving up the case clung to them, surely Margoliouth would naturally defend them, if without warmth, at least as a matter of course? Soon I had to rub my eyes. For I read in the new text $\dot{\epsilon} \pi о \pi о \boldsymbol{c}^{\prime} a$ and found $\dot{\alpha} \nu \dot{\omega} \nu \nu \mu o s$ omitted! There was some satisfaction here, and when I found the Editor's reason still more. In another context, as a mere 'obiter dictum,' he says ${ }^{2}$ 'In the case of Bernays' supplement ( $\dot{\alpha} \nu \omega \dot{\nu} v \mu o s$ ) the confirmation of the Arabic does not help it, but merely shows that an infelicitous suggestion of the nineteenth century had been anticipated before the tenth.' This had been exactly my own later conviction.

In dealing directly with the passage moreover Margoliouth argues powerfully and even unanswerably against the absurd emendations, adding the remark, which we think perfectly just, that 'the introduction of Bernays' interpolation has a tendency to destroy the whole book ${ }^{3}$.'

For this open-minded attitude as to the main bearings of the passage the Professor has certainly earned a special title to our sincere admiration. And yet he has failed to understand the point which we have seen Bywater perfectly recognised, namely, that dóros in the passage cannot mean ' prose,' nor $\psi$ i $\lambda$ òs 'stript of metrical form.' The fact is that Margoliouth has evolved a special theory of his own which is both unnecessary, and, we may be allowed to add, so over-subtle as to be highly improbable. Hence though he came nearer to the solution which

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we are trying to defend than any of our other recent commentators, he has failed to reach its full simplicity ${ }^{1}$.

Surely enough has been said to prove the confusion that exists among even the best editors as to Aristotle's true meaning, because they have allowed themselves to stray from the path of common sense. The crucial point we have to decide is whether the Philosopher intended to include among a class of Poetry, among Epic Poetrycall it by any other name, it matters not-unmetricised compositions. In other words, speaking generally, is metrical rhythm, or is it not, an essential character of poetry? And this too expressed in a passage where there is certainly no question of defining the subtle qualities of poetical as distinct from prose style, or the possible approximation of prose to poetry; but merely of arranging the main classes of poetry on a convenient basis for further scientific criticism. It is as though one should commence a treatise on botany by asking what are the main divisions of plant-life, and should go on to assert that it consists of Cryptogams, Endogens and Sentient Beings (defending this on the ground that certain Exogens appear to be sensitive to touch). In other words, if the Philosopher had held any of the exotic theories he is credited with, surely he would have found some clearer way of ventilating his opinion than by slipping it in when giving a preliminary classification of his subject-matter, which of all things ought to be clear, straightforward and incontrovertible.

I am fully conscious that such a priori arguments, though not wholly out of place, are by no means sufficient to force conviction-nor does the case rest upon them. If we turn to other passages in the Treatise on Poetry, we shall find plenty of evidence to prove how far is the author from supposing that what we call Prose writing belongs to the subject-matter of his treatise.

[^53]The clearest instance of the assumption that metre is essential to Epic is found in the opening words of
 $\mu \mu \eta \tau \iota \hat{\eta} s$, where Butcher would read èvì $\mu \in ́ \tau \rho \omega$. This emendation is ingenious and might seem to weaken my argument slightly, but in reality it would leave it with considerable force. Besides the change is quite unnecessary, and neither Bywater nor Margoliouth has referred to it. As the phrase stands in the MSS. it could hardly have been used unless the author felt that the metrical nature of Epic is something perfectly selfevident. Moreover, what strengthens this view of Aristotle's mind is the way in which he frequently refers to Epic metre as something familiar and universally admitted. His mind is always intent on proving one thing, viz. that metre, especially the one variety of metre which is associated in our minds with Epic, is not really the essential feature which distinguishes Epic from other forms of representation. $\Delta \bar{\eta} \lambda o \nu$ oũ $v$
 $\pi o \neq \tau \eta \dot{\eta} \nu \ddot{\eta} \tau \bar{\omega} \nu \mu \in ́ \tau \rho \omega \nu$. (Chap. 1x). This was not the prevailing view; neither is it a statement of one who holds the exotic opinion that metre in poetry is essentially a mere matter of indifference. In the same chapter at the commencement he similarly states that the work of Herodotus would not be a poem if put into metrewhich some have strangely understood to imply that a work could be made into poetry without metreforgetting the adage 'bonum ex integrâ causâ, malum ex quocunque defectu.'

Aristotle is convinced of two things: (I) that all poetry is metred, (2) that Epic poetry is ordinarily and properly written in Epic or Heroic metre. What he objects to (we repeat) is the view that Epic is Epic in virtue of its special metre. In Chapter xxiv he says,
 and he goes on to state that this wedding of Epic poetry
to Epic metre is the work of nature and not of convention. And here he refers again to Chaeremon, now calling him $\dot{\alpha} \tau о \pi \boldsymbol{\omega} \boldsymbol{\tau} \epsilon \rho \rho \frac{\nu}{}$ for mixing up the metres in his Epic, though we have been told in the passage under consideration that he must all the same be classed as an (Epic) poet. Is not all this discussion really incompatible with the theory attributed to Aristotle, that Epic poetry includes prose writing?

When starting this defence of the MS. reading, it was granted that the phrase $\hat{\eta}$ тois $\mu \dot{\epsilon} \tau \rho o u s$ (which certainly was the 'fons et origo mali') does contain a difficulty for our view. How then do we propose to deal with it ?

I give three alternatives.
I. Personally I should be very much inclined to expunge the phrase as a gloss. Nor should this cause much difficulty. It is notorious that our MSS. contain many glosses as also omissions and corruptions. If the passage be read without the words it is in every way improved; and after an expression like $\lambda$ ózous 廿u入oiss (which seems to require elucidation) a gloss would be extremely likely to have crept into the text.
2. Another and simpler expedient would be to
 is confirmed by the use of the expression $\psi_{i \lambda \lambda \mu \epsilon \tau \rho i a}$ in our sense in the following chapter. This does not wholly remove the difficulty about the use of $\eta$, but considerably mitigates it.
3. Must we assume that Aristotle could not have used $\hat{\eta}$ for $\epsilon_{i}^{\prime \prime} \tau \epsilon$ even though there is no clear instance of it in his writings? If so, then it is not impossible that he wrote каi which would make excellent sense, and I have referred above to a similar use of каi which was changed into $\hat{\eta}$ by copyists, though of a later date.

None of the above expedients could be called violent, or thought to bear comparison with the emendations which have been incriminated in the above pages.

Henry Browne.

## $\triangle I A \quad \Lambda I \ominus O N$ AND IOVEM LAPIDEM











 $\chi \in \iota \rho o ́ s$.

Cicero ad Fam. vii. 12. 2. Quo modo autem tibi placebit Iouem lapidem iurare, cum scias Iouem iratum esse nemini posse?

Livy i. 24. 6-9 (describing the oldest treaty known to him). Pater patratus...' audi,' inquit, 'Iuppiter, audi, pater patrate populi Albani, audi tu, populus Albanus... illis legibus populus Romanus prior non deficiet. si prior defexit publico consilio dolo malo, tum ille Diespiter populum Romanum sic ferito, ut ego hunc porcum hic hodie feriam, tantoque magis ferito, quanto magis potes pollesque.' id ubi dixit, porcum saxo silice percussit.

Livy xxi. 45. 8 (Hannibal's pledge to his troops in Cisalpine Gaul). Eaque ut rata scirent fore, agnum laeua manu, dextera silicem retinens, si falleret, Iouem ceterosque precatus deos, ita se mactarent, quem ad modum ipse agnum mactasset, secundum precationem caput pecudis saxo elisit.

Livy xxx. 43.9. Fetiales cum in Africam ad foedus feriundum ire iuberentur, ipsis postulantibus senatus consultum in haec uerba factum est, ut priuos lapides silices priuasque uerbenas secum ferrent.

Plutarch Sulla 10 (Cinna’s pledge to Sulla). 'O סè





Apuleius De deo Socratis 5. Iurabo per Iouem lapidem Romano uetustissimo ritu? atque si Platonis uera sententia est, numquam se deum cum homine communicare, facilius me audierit lapis quam Iuppiter.

Gellius i. 2 I . Iouem lapidem, inquit, quod sanctissimum iusiurandum habitum est, paratus ego iurare sum.

Festus [Padlus] s.v. Feretrius. Feretrius Iupiter dictus a ferendo, quod pacem ferre putaretur ; ex cuius templo sumebant sceptrum, per quod iurarent, et lapidem silicem, quo foedus ferirent.

Festus [Paulus] s.v. Lapidem. Lapidem silicem tenebant iuraturi per Iouem, haec uerba dicentes: Si sciens fallo, tum me Dispiter salua urbe arceque bonis eiciat, ut ego hunc lapidem.

Lactantius i. 20. Quid, qui lapidem colunt informem atque rudem, cui nomen est Terminus? hic est, quem pro Ioue Saturnus dicitur deuorasse....
[Servius] ad Verg. Aen. viil. 641. Foedera, ut diximus supra, dicta sunt a porca foede et crudeliter occisa; nam cum ante gladiis configeretur, a fetialibus inuentum ut silice feriretur ea causa, quod antiqui Iouis signum lapidem putauerunt esse. sed huius porcae mors optabatur ei, qui a pace resilisset.

Augustine De ciu. Dei ii. 29. I. Illic enim tibi non Vestalis focus, non lapis Capitolinus, sed Deus unus et uerus.

In the old Roman ritual of treaties a stone or a tool of stone was used to kill a pig. The pig, no doubt, stands
symbolically for the perjurer, the stone for the avenging power or its instrument. The passive part is taken by the pig, the active by the stone. But in Polybius, Plutarch, and the second passage of Festus, the stone's is the passive part. The rite which these authors describe belongs to the class in which the punishment of perjury is symbolized by spilling wine, breaking a saucer, extinguishing a lamp, or the like ${ }^{1}$. In such a rite the lamp, the saucer, the wine, the stone, cannot represent the avenging power, the god. Hence the Master of Balliol ${ }^{2}$ concludes that in Iouem lapidem iurare the two nouns are not in apposition, but each must be taken apart: ' the stone-oath in the name of Jupiter,' not 'the oath in the name of Jupiter the Stone.'

In point of syntax this interpretation of Iouem lapidem iurare is not very easy to accept. In support of lapidem iurare, ' to take the stone-oath,' is quoted calumniam iurare ${ }^{3}$, 'to take the calumnia-oath,' that is 'to swear that one is not bringing a malicious charge.' But in the language of the Roman law-courts brachylogies are common: the language of ritual is not in such a hurry, and, anyhow, lapidem for per lapidem is no great saving of breath. And even if lapidem iurare were as good Latin as Iouem iurare, it would not necessarily follow that the two could be combined. Latin can say falsum iurare: but does it ever say Iouem falsum iurare, 'to forswear oneself by Jupiter'?
 ouvúvar: but does it ever say $\tau o u ̀ s ~ \theta \epsilon o u ̀ s ~ \tau \dot{\alpha} s ~ \sigma \pi o v o ̛ ̀ s ~ s ~$ óuvival, 'to swear to the treaty in the name of the gods ${ }^{4}$ ?

[^54]Stones have been worshipped as gods elsewhere. In Rome a boundary-stone was worshipped as Terminus, a fire as Vesta, a lance as Mars. We do not indeed find Mars Lancea as a double name, but we find Iuppiter Fulgur and Iuppiter Fulgur Fulmen ${ }^{1}$. Add the syntactical considerations and the testimony of the commentary on Virgil, and a good case is made out for believing that to Cicero, Apuleius, and Gellius, Iouem lapidem meant 'Jupiter the Stone' ${ }^{2}$.

But the dilemma remains. In the slaying of the victim the stone represents the power of vengeance, the active part; in the ritual described by Polybius, Plutarch, and the second passage of Festus, it represents the offender, the passive part. The stone which is hurled to perdition cannot be Jupiter the Stone ${ }^{3}$.

Let us then distinguish not two forms only but three, in which
(I) an oath is taken in the name of Jupiter the Stone ;
(2) a stone, symbolizing the avenging power, is used to slay a victim, symbolizing the perjurer;
(3) a stone, symbolizing the perjurer, is dropped or thrown away.

In the first form no symbolic act is needed, any more than when a Roman swore by Jupiter Feretrius, or Socrates

[^55]by the dog. In the second form, although the avenging power is already symbolized, a god may nevertheless be invoked by his proper name, as in the first passage of Livy Jupiter is invoked, in the second 'Jupiter and the rest of the gods.' And of course a god may be invoked in the third form, where the avenging power is not symbolized at all. In the second passage of Festus Jupiter is named ; in Plutarch's story no god is mentioned, but the scene is the Capitol, Jupiter's seat. But since in this form a stone is already cast for a part, and that part the villain's, the Jupiter invoked must not be Jupiter the Stone ; to single out that title, of all his many titles, on such an occasion, would be a sad lapse from reverence and tact.

This triple classification satisfies all the passages but one. Had the third book of Polybius been lost, modern speculation would sooner or later have identified Jupiter the Stone with the stone that strikes the pig, but scarcely with the stone that is dropped or flung away. But Polybius, it would seem, combines or confuses the first form with the third.

On such a matter Polybius, a foreigner, may have erred ${ }^{1}$. Mr L. Deubner ${ }^{2}$ has already suspected him of confusing the ritual of a treaty, such as Livy describes in his first book, with a private oath, such as Plutarch describes. This may be so, but it does not help me, for, if my triple classification is right, I must still suspect him of a further confusion between the symbolical flinging of a stone and an oath by Jupiter the Stone. If he is to be acquitted of error, whether simple or double, then his meaning cannot be what it seems.

Día $\lambda_{i} \theta_{o v}$ means Iouem lapidem, but $\triangle \mathrm{IA}$ 几I $\Theta O N$ can

[^56]also mean per lapidem. May it be that per lapidem ${ }^{1}$ is what Polybius meant?

If Polybius meant Dícu in his introductory sentences, $^{\prime}$ it is odd that his actual description of the rite should say not a word about Zeus. Further, if he meant $\Delta^{\prime}$ í, he has committed a somewhat bold ellipse ${ }^{2}$. Moreover the manuscripts give neither $\Delta_{i}^{\prime} \alpha \lambda_{i} \theta_{o \nu}$ nor $\triangle I A ~ A I \Theta O N$, but $\delta i \dot{\alpha} \lambda i \theta \omega \nu$ or $\delta \iota \dot{\alpha} \lambda i \theta_{o v}$ : the oldest authority for $\Delta^{\prime} \dot{a}$ $\lambda i \theta o v$ is a conjecture in the margin of a manuscript written in 1417. The manuscripts, however, have little weight on such a point ; that the $\Delta I A$ of Polybius should be written $\delta \iota \dot{\alpha}$ by medieval scribes, was as likely as that their $\delta i a ̀$ should be changed to $\Delta^{\prime} \dot{a}$ by modern scholars. Nor will I insist on the difficulty of the ellipse. But the $\pi \alpha \rho \alpha$ $\pi \rho о \sigma \delta o \kappa i \alpha \nu$, the lack of any mention of Zeus in the actual description, is very strange.

If Polybius meant $\delta i \dot{\alpha}$, we must choose between $\delta i \alpha$ $\lambda_{i} \theta_{o \nu}, \delta_{\iota \dot{\alpha}} \lambda_{i} \theta_{o v}$, and $\delta_{\iota \alpha}^{\alpha} \lambda_{i} \theta^{\prime} \omega \nu$. The only evidence for $\lambda_{i} \theta_{o \nu}$ is the marginal conjecture aforesaid; the best manuscript and others have $\lambda^{i} \theta^{\prime} \omega \nu$; one has $\lambda i \theta$ ou. DIA $\Lambda$ I $\Theta O N$ would have been ambiguous where it first occurred, in the company of gods; as far as I can judge, the construction with the genitive is the better Greek ${ }^{3}$; the plural, though awkward ${ }^{4}$, is not impossible, and it has

[^57]the authority of the most and best manuscripts. Perhaps the least evil is $\delta \alpha^{\alpha} \lambda i \hat{\theta} \omega \nu$.

Those who cannot swallow $\delta \iota \dot{\alpha} \lambda i \theta \omega \nu$ may leave the blame on the head of Polybius. But if $\delta i \dot{\alpha} \lambda i \theta \omega \nu$ is read, there goes the only evidence for the identity of the god with the stone that is flung.

Even the stone that strikes, in the second form, is not to be identified with the god. The silex with which Hannibal slew his lamb was neither the Roman Jupiter, who was not at Hannibal's service, nor even the Punic Baal ; for anything that Livy tells us it was just a common fint ${ }^{1}$. In the Roman examples, indeed, the saxum silex or lapis silex is taken, according to Festus, from the temple of Jupiter Feretrius; but, since more than one such implement was forthcoming at need ${ }^{2}$, they cannot have been Jupiter the Stone, unless indeed self-multiplication of fetishes occurred in ancient as well as in modern times.

Who, then, or what, was Jupiter the Stone? Was he an aerolite? Was he Terminus under another name? I cannot tell; and I will not surmise that he owes his origin to $\delta i a \lambda i \theta o v$, though eleven thousand martyrs, we hear, have been bred out of textual corruption, and any Pantheon might be proud of a god begotten by a stone on a preposition.

E. Harrison.

[^58]
## ELPIS AND PANDORA IN HESIOD'S WORKS AND DAYS

The myth of Pandora given in the Works and Days is briefly this. Zeus, angry with Prometheus for the theft of fire, ordered Hephaestus to create, and various deities to adorn when created, a woman, who was afterwards named Pandora. This woman was conducted by Hermes to the house of Epimetheus, and Epimetheus, though he had been warned by Prometheus against accepting gifts from Zeus, received her, with fatal consequences. For the woman opened a jar ${ }^{1}$ from which a host of evils escaped among men, and closed it only when Elpis alone, of all that the jar had contained, was left inside.

This account notoriously bristles with difficulties. In the first place the $\pi i$ Өos-myth is an unexpected and highly unsatisfactory termination to the earlier portion of the story. The narrative begins ${ }^{2}$ as if it were to be a version of that recounted in the Theogony ${ }^{3}$ where woman is herself the punishment inflicted-woman the beautiful bane, idle and luxurious, no helpmeet for man. Instead of this the sequel presents us with woman not directly ruinous to man but only the indirect cause of his misfortunes through the curiosity (or other unspecified quality) which leads her to open the jar. To this second story the preceding account of the creation and adornment of Pandora has little relevance, and it is reasonably clear that the Works and Days

[^59]at this point presents us with a combination of two different myths; first, the story given in the Theogony, which I shall call for convenience the Misogynist's Myth, and second, the $\pi i \theta_{o s-m y t h}$.

Secondly, neither of these two stories is intact in itself. The Misogynist's Myth may in its present form contain two elements, since the instructions issued by Zeus for the embellishment of Pandora ${ }^{1}$ differ materially from the account of these processes as subsequently carried out ${ }^{2}$, and it has been cut short in order to fit the $\pi i$ 梠-myth. The latter also has suffered by the process, for its beginning has been shorn off with a violence which leaves commentators debating whether the all-important jar was brought by Pandora from heaven, or whether they shall rather believe with Proclus that Epimetheus was housing it for Prometheus who had it of a satyr ${ }^{3}$.

I mention these difficulties here chiefly to show that the strange collection which has come down to us as the Works and Days of Hesiod is in sad confusion at this point. This paper is concerned with another difficulty in the $\pi i$ Oos-myth. This I may best express in the form of two questions to which commentators have at one time or another tried to find answers:
i. What is Elpis doing in the jar ?
ii. Why does she remain in it after its other contents have escaped?
As I shall show immediately, these two questions are usually alternative.

Before we consider the various answers which can be given or have been given to these problems, it will be well to ascertain what deductions may be made from the story itself. 'Aforetime,' says Hesiod, 'the tribes of men lived on earth apart from evils and stern toils and dread diseases which bring death to men. But the woman, taking with

[^60]her hands the great lid from off the jar, scattered; and devised baleful griefs for mankind. And only Elpis remained within in the unbreakable abode under the lips of the jar and flew not forth, for she [the woman] first put on the lid of the jar. But countless banes beside wander among men, for full of evils is the land and full the sea, and diseases, some by day and some by night, of their own power go to and fro and bring evils to mortal men, in silence, since Zeus the Counsellor hath deprived them of speech.' Here then two obvious deductions are to be made. First, since men were happy before the opening of the jar and unhappy afterwards, and, more specifically, since before they were free from diseases whereas afterwards diseases went to and fro upon earth, it follows that the contents of the jar were evils. Secondly, since the opening of the jar meant the communication of its contents to mankind, the closing of the jar with Elpis inside can only mean that mankind is deprived of Elpis. These are the first considerations to be taken into account in explaining the passage and no explanation which ignores these conditions can be accepted.

Further, the passage must be approached without prejudices as to the character of Elpis ${ }^{1}$. Elpis may be either good or bad, as is sufficiently proved by Theognis:

and

This is highly significant, for the character of Elpis determines the relative importance of the two questions in which I have expressed the problem before us. If Elpis is evil, her presence in the jar needs no explanation but we shall be put to it to explain why she is singled out from the

[^61]other evils for separate treatment. If she is good, the separate treatment may be intelligible, but what is she doing in the jar at all ?

Here then is the problem in simple terms. Commentators have not, as a matter of fact, been at the pains of reducing it to these terms and their answers are in consequence often inadequate, but, such as they are, we must consider them. We may begin with the scholiasts:
(i) Proclus held that Hesiod's jar corresponds to the two jars of good and evil which stand on the threshold of Zeus ${ }^{1}$, and that the woman let out of it both good and evil. This answer is logical as far as it goes: Proclus, who regards Elpis as good, explains her presence in the jar. His explanation is in fact untenable because the text gives no hint that the jar contained goods as well as evils. Moreover, if the jar did contain good as well as evil, then the second question, Why is Elpis left behind ?, still requires an answer and he offers none. He does indeed quote Aristarchus's opinion that $\epsilon \lambda \pi$ is $\dot{\alpha}^{\prime} \alpha \alpha \theta \bar{\omega} \nu$ actually came out while $\epsilon \in \pi$ тіs как $\bar{\omega} \nu$ remained inside (a distinction for which the poet gives no warrant), and mention is also made of the alternative view that Elpis is 'E $\lambda \pi i$ 's $\kappa \epsilon \nu \eta$ ', but these hypotheses leave the difficulty untouched.
(2) Tzetzes has a long note in which he maintains that before the opening of the jar men were really unhappy but did not know it. As his remarks, which are in any case extremely silly, do not touch any of the difficulties, I shall not waste time over them.

Modern critics ${ }^{2}$, in spite of much ingenuity, are hardly more successful.
(3) Goettling, Paley and Flach hold the point to be that Elpis remains to mankind even under the most grievous afflictions ${ }^{3}$, and they account for her presence in the jar by regarding her as an evil. As we have seen,

[^62]however, her continued presence in the jar cannot bear the construction here put upon it: if it means anything, it must mean that mankind is deprived of her.
(4) Van Lennep offers a similar explanation except that he regards Elpis as good. Her presence in the jar he explains by the fact that the existence of Hope involves and depends on the existence of evils: though good herself, she can only exist when there are evils against which she can operate, and hence she is here associated with evils. Few, I think, will care to read these metaphysical subtleties into Hesiod.
(5) All these critics have fallen into error by not observing that when the lid of the jar was replaced Elpis was withheld from, not communicated to, man. The error is not unnatural, for it is not easy on general grounds to suppose that the poet would have denied Elpis to mankind; and this is a point to be remembered in considering the passage as a whole. L. Schmidt ${ }^{1}$ and Waser ${ }^{2}$ however have an explanation of the reservation. They suppose that Elpis remains in the jar to be communicated to mankind later by Prometheus. To this theory there are several minor objections: I will only urge however the new dilemma it involves. If Elpis is good (and in the only passage where Prometheus is connected with her she is spoken of as a good comparable with the gift of fire ${ }^{3}$ ), again what is she doing in the jar ? If she is bad, what has Prometheus, the benefactor of mankind, to do with her?
(6) Two critics have given a new meaning to the word $\epsilon ่ \lambda \pi i$ 's in this passage. Waltz ${ }^{4}$ says she is 'sans doute l'at-

[^63]tente, la prescience du malheur'-a rendering for which we require rather more evidence than his unsupported conviction, and Gruppe ${ }^{1}$ explains the myth by a mysterious allegory. Elpis, he says, is error which remains behind, the other contents are sorrows which get abroad. This extraordinary view seems only to increase the difficulties of the passage and it need hardly be discussed here.
(7) Finally, I have noted two theories as to the contents of the jar. Girard ${ }^{2}$ supposes that it contained both good and evil, and that when it was opened the good flew away and the evil got out into the world. This is the view which we have already condemned in Proclus: stated in this form it involves this conclusion. When good and bad were in the jar together mankind was in possession of the good but deprived of the evil-that is to say, the whole story is reduced to an absurdity. The second theory as to the contents of the jar is that of Weizsäcker ${ }^{3}$ who supposes that the poet is vague and leaves them undefined. This is a counsel of despair.

Confronted with the problems of the passage critics thus prove ineffectual, nor, so far as I can see, is there any likelihood of finding a satisfactory conclusion along the lines followed hitherto ${ }^{4}$. The fluctuating character of Elpis gives us indeed a choice between two problems, but that helps us little, for both are, in my opinion, insoluble. One other way remains which appears more hopeful.

In Hesiod's mítos-myth the contents of the jar are, as we have seen, evils. There is however another story. An epigram in the Greek Anthology ${ }^{5}$, ascribed to Macedonius, speaks of Pandora opening a jar, but there it is a jar of goods which fly away and are lost to man. More impor-

[^64]tant because more clearly independent of Hesiod is the version given by Babrius ${ }^{1}$. Here Pandora is absent; Zeus gives to a man a jar containing all goods, the man opens it and all escape and fly up to Heaven save Elpis who is left inside when the lid is replaced. Now in this story the presence of Elpis in the jar and the meaning of her remaining behind are perfectly intelligible. The jar contains goods, among which is Hope, but here to be in the jar means to belong to mankind and to escape from it means to go beyond man's reach. Hope remains in the jar, for she is the one good thing left to miserable mortals. This is clear and satisfactory ; in Hesiod, where the symbolism of the jar is reversed, the presence of Elpis is unintelligible. I am therefore forced to conclude that the account of Elpis in the Works and Days belongs to the version of the story told by Babrius and does not belong to the version which now prevails in the text of Hesiod.

The Jar of Goods seems not to occur except in the two passages mentioned above and Babrius's account is characterised by Rutherford ${ }^{2}$ as 'late ' and ' garbled and absurd.' As to its absurdity, the two stories seem to me to be exactly on an equality. There are two jars, one of goods, the other of evils, which stand on the threshold of Zeus ${ }^{3}$ : either might serve to point a moral or adorn a tale, whether the moralist be pessimistic (as happens to be the case in both our versions) or optimistic. The choice of jar and corresponding choice of symbolism are merely matters of taste. Neither can I admit that the Babrian story is necessarily late and garbled. If it comes to a weighing of authorities, we have apparently (omitting Hesiod as still sub judice) Eustathius ${ }^{4}$, Philodemus ${ }^{5}$ and Porphyrion ${ }^{6}$ (none independent of Hesiod) for the Jar of Evils, Babrius and

1 lviii.
3 I express no opinion as to the relation in myth between these $\tau i \theta \circ \iota$ and those we are considering.
${ }^{4}$ p. $1363,24$.

${ }^{6}$ At Hor. C. i. 3. 29, Eustathius and Porphyrion are discussing our passage, Philodemus is talking of Hesiod and quotes $W$. D. Si f. just below.

Macedonius for the Jar of Goods ${ }^{1}$. The a priori probabilities are moreover in favour of the Babrian myth being the earlier of the two, for a $\pi i \theta$ os is primarily a store-chamber for wine or grain, that is to say, a receptacle for blessings not for banes.

What exactly has happened at this point in the traditional Works and Days is a matter of some uncertainty ${ }^{2}$. Two alternatives are possible. Either Elpis has been inconsequently thrust into the jar of evils, in which case 11. $96-99$ contain alien matter and the original story is resumed at 1.100 , the juncture being roughly patched by alteration in 1. Ioo; or-and this seems to me the preferable hypothesis-11. IOO-IO4, belonging possibly though not necessarily to some version of the Jar of Evils, have

[^65]















92 к $\eta$ pas $\Omega \Psi$ ( Origenes, $\gamma \hat{\eta} p a s$ codd. quidam dett. m . rec. in marg. $\Psi$ bNP, om, codd. cett. Origenes.

93 in textu habent GEQ,
99 exhibent $\Omega \Psi \pm$, legerunt Tzetzes et Moschopulus; non agnovit Plutarchus, neglexerunt Origenes Stobaeus.

replaced the end of the other story ${ }^{1}$. However, the Works and Days in general and, as I have said, the Pan-dora-myth in particular are in such a state that complete certainty can hardly be attained in matters of this kind. It is conceivably not without significance that between 1. 98 and l. ioo, a critical place on either hypothesis, occurs in all MSS. a line unknown to Plutarch and other ancient critics ${ }^{2}$ and therefore alien even to our traditional text ${ }^{3}$.

I have no general solution of the Hesiodic problem and shall not discuss here the cause or origin of the confusion in the $\pi i \theta$ os-myth. Neither is it any part of my present purpose to track Pandora through the mazes of Greek religion. One question however remains for brief consideration. Elsewhere Pandora is $\mathrm{Ge}^{4}$, or Rhea ${ }^{5}$, or the wife of Prometheus ${ }^{6}$, or the mother of Graecus ${ }^{7}$, or an under-world daemon with an iron body ${ }^{8}$. Now Pandora, the Earth-Goddess, might well be armed with a jar of blessings or even a jar of banes ${ }^{9}$, but what is the evidence connecting her with the two $\pi^{i} i \theta$ os-myths we are considering? In Hesiod, if the facts stated at the beginning of this paper are correct, the connexion is accidental; the

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violent juncture effected between the Misogynist's Myth and the mi $\theta$ os-myth involves the identification of the Pandora of the one with the nameless woman of the other but gives little ground for supposing them identical originally ${ }^{1}$. It is even possible that the nameless woman is not original either but comes in through recasting when the two myths were joined together. It is not without significance that Philodemus mentions another tradition that the jar was opened not by Pandora but by Epimetheus ${ }^{2}$. In Babrius also, though Epimetheus is not named, it is a man who opens the jar.

The Hesiodic evidence, although it will not stand investigation, does to the ordinary reader connect Pandora with the jar, and this connexion is duly made by Philodemus who takes the story from Hesiod. There remain Nonnus ${ }^{3}$, who mentions Pandora with a jar of unspecified contents, and Macedonius, in whose epigram Pandora opens a jar of goods. These then are the only direct authorities for Pandora's jar, and the value of their evidence depends on the assumption that they did not derive the story from Hesiod. This is an assumption which I for one should not make with any confidence ${ }^{4}$. Pandora has many other occupations in Greek mythology, and we shall be inflicting

[^67]no hardship upon her if we grant an interim injunction depriving her of the jar until she has produced a better title to it. At present she stands, like Perses, under grave suspicion of having seized and carried off more than her fair share in the heritage of myth.

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reminiscence of Hesiod: at least I cannot share the confidence of commentators who translate 'after the lid was removed.' Waltz (Rev. d. Et. Gr. xxiii. p. 54) renders : 'a laissé retomber avec le couvercle la brillante parure de ses charmes.' At W.D. 230 the same writer announces that 'la leçon des MSS. ( $\mu \in \tau$ ' suivi du datif) est incorrecte.' Both views suggest that he is imperfectly acquainted with the uses of this preposition. If Macedonius's epigram is based on Hesiod the value of his evidence as to the Jar of Goods is diminished, but, even if we had not Babrius, we should in my opinion be compelled to postulate that version of the myth in order to explain the passage in Hesiod.

## WAS IT THE MINT OF SMYRNA?

In 1884 the late Mr Greville J. Chester presented to the Department of Greek and Roman Antiquities in the British Museum a small hoard of 28 pieces of metal, found near Smyrna. One of these was a lead weight (?) of triangular form, with three dots on one side; of the remainder, 16 were bronze coins and 8 pieces which are apparently blanks for striking ${ }^{1}$.

There were also two amorphous pieces of fused bronze, and a small piece of iron pyrites ${ }^{2}$. The whole hoard, with the exception of the weight, has since 1906 been transferred to the Department of Coins. The description of the pieces of bronze, whether coins or blanks, is as follows:

## Gambrium in Mysia.

I. Head of Apollo r., laureate.

Rev. Bull butting l. Io to 9.5 mm . Five specimens.

Cp. B.M.C. Mysia, p. 63, nos. 14-16 (' Third century b.c.'). H. von Fritze, Mysien, p. 145, no. 426 ('after middle of fourth century ').
2. Head of Apollo r., laureate; border of dots.

Rev. ГAM Star. 10.5 mm . Two specimens.
Cp. B.M.G. Mysia, p. 62, nos. 9-1 I ('Third century b.c.'). H. von Fritze, op. cit., p. I44, no. 422 ('after middle of fourth century ').

[^68]3. Head of Apollo r., laureate.

Rev. ГAM Tripod. io mm. One specimen.
Cp. B.M.G. Mysia, p. 63, nos. 18 - 25 ('Third century в.c.'). H. vo Fritze, op. cit., p. 146, no. 427 ('after middle of fourth century ').

## Pergamum.

i. Head of Athena r. wearing crested helmet.

Rev. Two stars; legend obliterated. 10 mm .
One specimen.
Cp. B.M.G. Mysia, p. in 2, nos. 24, 25 (' в.с. $310-$ 283 ') ; H. van Fritze in Corolla Numism. p. 52, Pl. II. 12, and Münzen v. Pergamon, p. 5, Taf. I. in ('time of Lysimachus').
2. Head of Athena r. wearing helmet ornamented with griffin.

Rev. ФIAE|TAIPO[ Y$]$. Strung bow. 12.5 mm . One specimen.

Cp. B.M.C. Mysia, p. I 19 (‘b.c. $28 \mathrm{I}-\mathrm{I} 97$ ’); H. vol Fritze, in Corolla Nomism. p. 54, Pl. II. 22 and Mïnzen v. Pergamon, p. 23, Tat. I. 3 I ('belongs to the earlier period of the kings').

Algae in Aeolis.

1. Head of Apollo r., laureate.

Rev. Goat's head r. ; legend obliterated. II mm. One specimen.

Cp. B.M.G. Troas, p. 95 ('Third century b.c.').
Cyme in Aeolis.
i. Eagle r. ; legend obliterated.

Rev. K $\backslash$ Vase with one handle. 10.5 mm . One specimen.

Cp. B.M.C. Troas, p. ion, nos. 27 f. ('circe. в.c. 320-250).

Elaea in Aeolis.
I. Head of Athena 1., wearing crested Corinthian helmet.

Rev. Barley-corn between two branches of olive. io mm. One specimen.

Cp. B.M.G. Troas, p. 107, nos. 6 ff. ('fourth century в.с., after circ. в.с. $340^{\prime}$ ).

## Myrina in Aeolis.

i. Head of Athena r., wearing close-fitting crested helmet ornamented with griffin.

Rev. [M]Y PI. Amphora. 14.5 mm . One specimen.

Cp. B.M.C. Troas, p. I 35, nos. 20-26. (These are assigned in the Catalogue to the second or first century в.с., but in the margin of a copy of the book Mr Wroth has noted that they may be as early as the fourth century.)

## Erythrae in Ionia.

r. Head of young Heracles r. in lion-skin.

Rev. Bow-case r. and club l.; city-name and magistrate illegible. 10.5 mm . One specimen.

Cp. B.M.G. Ionia, p. 124, nos. 66 f. ('circ. b.c. $387-$ 300'). The club and bow-case are arranged as on the hemidrachm no. iol, of the next period; but in other ways the coin seems to belong to the fourth century series.

## Uncertain.

1. Head of Apollo 1.

Rev. Uncertain type; female head l.(?). I 2 mm . One specimen.

The 8 blanks vary considerably in shape and size; the largest is II. 5 mm . in diameter, and 4 mm . thick; the smallest is only 4.5 mm . in diameter but over 4 mm . thick. This almost looks as if it were cut from a bar or stout wire ; the thinner ones may have been cast in their present shape, and this is I think certainly the case with one which is flat on one side and convex on the other. The weights of the blanks $(\alpha-\theta)$ and pieces of fused metal $(\iota, \kappa)$ are as follows:


This curious little collection has every appearance of being the sweepings of a mint. For in what other place would one be likely to find unstruck coin-blanks of bronze, together with a variety of struck coins of corresponding size, also of bronze? Had the metal been gold or silver, one might have assumed that we were in a goldsmith's or silversmith's shop (as in the case of the well-known Naucratis hoard) ; but there blanks would be out of place.

The coins are all in poor condition; it follows therefore that, if the place where they were found was really a mint, they had not been produced there. Nor, although little towns like Gambrium and Aegae might have 'put out' their minting, is it likely that Pergamum or Myrina should have done so, even in the case of their minor bronze coinage. We must assume, therefore, that the coins were some of a number which had been collected to be used for making new ones. Most probably they
would have been melted down and cast into new blanks, similar to those which have been preserved; but some of them might well have been placed between the dies without recasting.

It is unfortunate that we have no precise indication of the locality or circumstances of the discovery of the hoard to help us to say whether the mint was the mint of Smyrna itself, or of some neighbouring small town.

The coins date, it will be observed, from the fourth and third centuries b.c.; the only one (that of Myrina in Aeolis) which has been attributed to a later date was on second thoughts, as Mr Wroth noted, moved upwards to the fourth century.

Probably the events which led to the burial of the hoard (if it was a hoard), or to the shutting down of the workshop of which these pieces formed the sweepings, took place towards the end of the third or beginning of the second century. If this was a mint, the pieces may well have been used to produce such small bronze coins as those which are attributed to Smyrna in the third century b.с. after the death of Lysimachus ${ }^{1}$. The weights of the coins of this class in the British Museum are as follows :

| B.M.C. Ionia, Smyrna, no. |  | Weight |  |
| :---: | :---: | :---: | :---: |
|  |  | Grains | Grammes |
|  | 9 | 65.5 | $4 \cdot 24$ |
|  | ${ }^{1} 3$ | $47^{\circ}$ | 3.05 |
|  | 10 | $40 \cdot 2$ | $2 \cdot 60$ |
|  | 14 | 32.7 | $2 \cdot 12$ |
|  | 15 | 23.8 | $1 \cdot 54$ |
|  | 1 I | 18.9 | 1.22 |
|  | 12 | $6 \cdot 2$ | - 40 |

The weights of Greek bronze coins are, it is well known, very irregular, and little stress can be laid on them; but it is at least possible that blank a might have been

[^69]used to strike a coin like no. I 3, and $\theta$ for a coin like no. I 2.

After the battle of Magnesia Smyrna started the new coinage of which the large silver pieces with the head of Kybele form the most characteristic and best known issues. It may have been then that the modest installation which is indicated by the little collection which we have been considering was superseded by a more elaborate mint.

The reader will by this time have had enough of conjectures; but he will, it is hoped, excuse them for the sake of the peg upon which they are hung. Let me add only that the absence of coins of Smyrna itself from the collection is in favour of the hypothesis.
G. F. Hill.

## THE ANCIENT NAME OF GLA

There are three obvious objections to Noack's theory that the ancient name of Gla was Arne (' ein vorböotisches Arne ') ${ }^{1}$ :
(i) The traditions concerning Arne.
(a) It was the old name of Chaeronea ${ }^{2}$ : this Noack rejects on the ground that it is unlikely. As Chaeronea was the first town captured by the invading Boeotians from Thessalian Arne ${ }^{3}$, it seems very possible.
(b) It was the old name of Akraephnium ${ }^{4}$ : this he rejects in one sense, accepts in another, by making Arne, i. e. Gla, the old site of Akraephnium, there having been an $\dot{\alpha} \nu o \kappa \kappa \iota \mu$ ós after the flooding of the Lake. Arne could not have been the later Akraephnium, as no Mycenean remains exist of the latter place; the same remark would, however, apply to Haliartus, Copae, Coronea, and many other towns that undoubtedly existed in Minyan times. Akraephnium was said to have been founded by Athamas ${ }^{5}$; this legend really belongs to Gla, according to Noack, situated in the Athamantine plain.
(c) It and Midea were destroyed by floods in the Copais, their sites were unknown ${ }^{6}$, and Gla stands too high ever to have been flooded. Noack disposes of this by

[^70]rejecting the story as unhistorical, on the ground that it is a mere repetition of the earlier (and true) story of the destruction of the prehistoric towns, Athenae and Eleusis, by floods ${ }^{1}$.
(ii) Homer wrote : oĭ $\tau \epsilon \pi \sigma \lambda \nu \sigma \tau a ́ \phi \nu \lambda o \nu$ " $\mathrm{A} \rho \nu \eta \nu$ ' $\in \chi o \nu$, oí $\tau \in$ Mí $\delta \epsilon \iota \nu^{2}$, and the soil of the Copais around Gla is much too heavy for vine-culture, as M. de Ridder pointed out ${ }^{3}$. Noack ignores this altogether ; he notes only Zenodotus' emendation 'A $\sigma \kappa \rho \eta \nu^{4}$, and rejects it for the same reason as Aristarchus-did not Hesiod say the climate of Ascra was bad ?--' und wer heute die kahle felsige Höhe betrachtet, die das alte Ascra trug, wird ihm (Aristarch) nur beipflichten.' But these two distinguished scholars take Hesiod too seriously. As a matter of fact, vines grow in great quantities at the foot of the hill of Ascra, and we are told that it was not only $\pi o \lambda v \sigma \tau \alpha \dot{\phi} u \lambda o s$
 epithet that fits Gla.
(iii) The legends of Arne, both of the town and of the heroine, are all Boeotian ${ }^{6}$, that is, post-Minyan, while Gla is Minyan. This Noack subjects to two criticisms :
(a) Both Strabo and Thucydides state that the Boeotians came from Thessaly into Boeotia after the Trojan War ${ }^{7}$. This the Alexandrian scholars thought a very good reason for supposing " $A \rho \nu \eta \nu$ to be a wrong reading ${ }^{8}$. But Noack does not think the text of Homer can be wrong, and supposes this to be evidence that there was a pre-Boeotian Arne. He puts great trust in these statements of Thucydides and Strabo: 'Hier steckt, meine ich, wirkliche Gelehrsamkeit, die mit historischen Daten rechnet und so

[^71]weit gekommen ist, als man mit der damaligen Erkenntnis kommen konnte.' But unfortunately the same writers state plainly that the name Arne came with the Boeotians from Thessaly, after the war, according to those who would alter the reading, or before, as part of the $\dot{c} \pi \sigma \delta \alpha \sigma$ $\mu o ́ s$ of Boeotians which is mentioned in the Catalogue. At this conclusion of 'real scholarship,' Noack's trust disappears: 'Es ist lediglich ein Schluss, der aus der falschen Voraussetzung schon im Altertum gezogen ist, dass wenn die Böoter aus dem thessalischen Arne kamen oder doch sicher aus Thessalien, wo es ein zweites Arne gab, sie auch diesen Namen zuerst in Böotien eingeführt haben müssen.' Whence the tradition that the Boeotians came into Boeotia after the Trojan War arose, we do not know : it is clear that in the Iliad there is more than a mere $\dot{\alpha} \pi o \delta \alpha \sigma \mu{ }^{\prime}$ s there-for they occupy more than nine-tenths of the country, all except Orchomenus and Aspledon, and there are no longer any Cadmeans-and that, at any rate, Arne has as much right to be considered Boeotian as any of the other places or as the leaders themselves, Peneleos, Leitus and the rest ${ }^{1}$.

[^72](b) One ancient author, Lycophron, states that there was an Arne belonging to the Temmikes, and this race is pre-Boeotian and comes from Attica ${ }^{1}$.

Out of this Noack has constructed his theory of a pre-Boeotian Arne belonging to the Temmikes (from which Menesthius of Arne also came) ${ }^{2}$; this tradition he considers to be well-founded: 'vielmehr duirfen wir constatiren, dass hier ein Stuck sehr alter Gelehrsamkeit für ein vorböotisches Arne in Böotien zeugt, das vielleicht auch dem gelehrtesten und dunkelsten aller Dichter in seiner wahren Bedeutung dunkel geblieben war. Dieses Resultat ergiebt sich unabhängig von aller anderen Überlieferung und darf also als selbständiges Glied in die Untersuchung eintreten' ;-so independent indeed of all other traditions, that it contradicts them. But even so this Arne does not belong to the Minyans, but to the Temmikes, who are joined by Strabo ${ }^{3}$ with the Aones, the Leleges and the Hyantes, who in barbarous days, before the Cadmeans, inhabited Boeotia. This means that they were before the Minyans too, even if they ever inhabited Western Boeotia at all. Strabo implies that they dwelt in the Eastern plain only ; and even Lycophron's words would suggest this, for of the places which he mentions along with this Arne of the Temmikes, only one, Tegyra, is in the Copais district, and that probably a late foundation; one, the Hypsarnes river, is unknown, while the rest are all in Eastern Boeotia ${ }^{4}$. Strabo says that the Temmikes came from Sunium, and for this reason Noack thinks that the Minyans

Arne, etc., in Thessaly as well as in Boeotia, points to an original identity of race : it is no isolated phenomenon, like the two Orchomeni.
${ }^{1}$ Lines 644-7: 'Others will sail to the far West, to the Balearic Islands and Tartessus :-
 Грaíà поөoùvтєs кaì $\Lambda є o \nu \tau a ́ \rho \nu \eta s ~ \pi a ́ \gamma o u s, ~$



${ }^{2}$ H 9 foll.
${ }^{4}$ Leontarne, according to the scholiast on B 507 (Dindorf, iii. p. 139), was situated below Helikon, and some said it was the Homeric Arne.
went from Thera to Boeotia and Thessaly (not vice versá) through Attica, and so were the same as the Temmikes. The conclusion is a rash one. In any case, Lycophron's line need not be an instance of 'sehr alter Gelehrsamkeit,' but of very modern pedantry; no more reliance can be placed on his use of T $\epsilon \mu \mu і к \omega \nu \pi \rho о \dot{\prime} \boldsymbol{\prime}$, than on the use by the Roman poets of the epithet Aonius in connection with Hesiod or the Muses. It is far more probable that Arne is 'ein alter Stadtname, welcher dem Stamme der aiolischen Boioter eigentümlich gewesen zu sein scheint ${ }^{1}$.'

Noack adds that so large a fortress as that of Gla must have been mentioned by Homer ; Wilamowitz had thought this too and supposed Gla to be a seat of Athamas, and either Arne or Midea: 'Wilamowitz hat es für unglaublich gehalten dass diese grossartigsten Ruinen der Heroenzeit im homerischen Schiffskatalog gefehlt haben sollte, wo doch Orchomenos, Tiryns und Mykenai nicht fehlen ${ }^{2}$.' But Noack himself realises that the occupation of Gla was only possible when the Copais was drained ${ }^{3}$; and both the traditions of the wars of the Thebans and the Orchomenians and the turning of the Copais into a lake by Heracles ${ }^{4}$, and the fact that in Homer only Orchomenus and Aspledon belong to the Minyans, make it practically certain that in the time of the Iliad the Copais was no longer a plain, and Gla already uninhabitable. This is the reason why there is no mention of this fortress in the Iliad, or in Strabo and Pausanias ; the former followed the Catalogue, while the latter did not

[^73]pass by the island ; it makes Noack's theory quite untenable.

Many names have been suggested for Gla: Dodwell, followed by Ulrichs and Bursian, supposed it to have been the old site of Copae, though we do not hear that Copae ever changed its site; 'sie konnten sich auf keine Überlieferung stützen'; Leake suggested Athamantium from the Athamantine Plain, ' where Athamas is supposed to have dwelt ${ }^{1}$ '; Forchhammer and Vischer suggested Midea or one of the other sunken cities ; Ross would not name it -'ein namenloser Zufluchtsort' ; and Lolling also refrained from making any conjecture ${ }^{2}$.

Recently Mr T. W. Allen has suggested that the ancient name was Glechon, known only from a fragment of Hesiod ${ }^{3}$. As the only facts we know about either Gla or Glechon are that the Cephissus flows by each, and that each is older than Hesiod, this would fit very well. If I may, I will add one more to the list of conjectures. We need for the inhabitants of this fortress a people who were famous, but who are not located in any known city in the tradition; and they must fulfil certain conditions-(i) they must belong to the Minyan period, the time when the Copais was a plain, and have been, at one time at least, friendly to Orchomenus; for it is clear that the rulers of that city would not have allowed an enemy in a fortress so near them and their system of canals; (ii) they must have been a warlike people, for Gla is entirely a fortress, as M. de Ridder pointed out ; and (iii) they must have occupied the island for a short time only; for the remains at Gla are of a single period (though M. de Ridder appears to suggest that the decoration of the palace is later than the rest $)^{4}$; very few fragments of pottery were

[^74]found, all of the Mycenean type akin to that found by Schliemann at Orchomenus, and 'the style of masonry of the walls is so thoroughly homogeneous that we cannot doubt that they were all built at the same period, probably within the space of a few years... The fewness of the objects ["Kleinfunde "] seems to indicate that the population of the place was small and that it was not resident for long...It seems to have been erected at a blow and to have perished at a blow; for everything in it bears the imprint of a single period and of a single plan, there is not a trace on the plateau of an earlier or a later settlement. The scantiness of the remains of pottery, and the seemingly total absence of all other objects of daily life, indicate that it was inhabited only for a short period; and the traces of fire in the palace point to the conclusion that its end was sudden and violent ${ }^{1}$.' Only the Western part of the island could ever have been inhabited at all, and this is nearly all occupied by the palace and agora; for the Eastern half is covered with huge boulders; it was not therefore a large trading town or the centre of an agricultural district merely. These conditions seem to me to be filled by Phlegyantis or Phlegya, the city of the insolent Phlegyans. Stephanus says of Флєrúa mó入ıs
 saying where it was to be found, and no other writer mentions the city under this name. Pausanias is the authority (the only one) for Phlegyantis, and this gives









[^75]






But God smote them with thunderbolts and earthquakes, and fever carried off the rest, though some few escaped to Phocis ${ }^{1}$.'

In the legends however that told how the Phlegyans attacked Thebes, unsuccessfully at first against Amphion and Zethus, then successfully after the death of the brothers, under their king Eurymachus, they are localised at a place called Gyrton ${ }^{2}$. This legend is combined with the attack on Delphi by Pherecydes, but it does not appear that it occurs outside that author ; Eurymachus is only mentioned by him and by Eustathius ${ }^{3}$. Gyrton was named after a Gyrton, Phlegyas' brother, or Gyrtone, his daughter ${ }^{4}$, but it was in Perrhaebia near Olympus ${ }^{5}$, and seems to have belonged to the Thessalian Phlegyans, whence it may have been transferred to Boeotia, for no town of that name is otherwise known there. Гиртш́va Флєरúaı катокоǜтєs, said Pherecydes: K $\nu \rho \tau \omega^{\prime} \nu \eta \nu^{6}$ at once suggests itselr as an emendation, but we should not expect to find the Phlegyans in the mountainous district north of the Copais; this would not be convenient for an attack on Thebes. (Is $\Gamma \lambda \eta \chi \omega \hat{\omega} \alpha{ }^{\text {perhaps }}$ the right reading?) But either Phlegya or Gyrton might be the ancient name of Gla.

> A. W. Gомme.

[^76]
## THE PARTHENEION OF ALKMAN ${ }^{1}$

## A VERSION AND A SUGGESTED INTERPRETATION of vV. 36 -IOI

All.
The Gods avenge! And happy he Who passes in tranquillity

His day, without a tear-
A Group of Maidens.
I sing the radiant Agido.
She bids the sun look out and show
He has a rival here.
Another Group.
Her Leadership's nobility
Forbids me praise your Agido, Or criticise, my dear.
Her Leadership appears to me So exquisite, a racer she Among the common cows might be, Of pride and prance and pedigree-

The First Group.
Fancies have wings, I fear!

## The Second Group.

The horse I mean-why, can't you see ?-
Venetian-Hegesichore, My cousin, with her hair
That shines like perfect gold, and, Oh, The perfect face that shines below-

[^77]The First Group.
To speak plain truth I'll dare.
Her Leadership is all you say, And yet she is not Agido, But makes the perfect pair. For see, on night's mysterious way, Like Sirius, with jealous ray, The Pleiads rise, our rivals they, As for our Lady's festal day Her sacred robe we bear.

All.
No pomp and purple make us bold,
No twisted chains of cunning gold
To twine about our hair:
No, nor the coif that is the pride
Of Lydia, that lovely eyed
Delicate maidens wear-
The Second Group.
Cleesithera, Arete
Or Thulakis may be denied,
Or Nanno, though so rare-
The First Group.
Who goes to Ainesimbrote
For Astaphis? Demarete?
Philylla? Ianthemis, though she Is lovely?

The Second Group.
Hegesichore
Alone can make us dare.

Why, where is Hegesichore?
Our dainty dancer, where is she?-
The First Group.
Aha! She's over there,
Close, very close, to Agido,
Praising our gift; and now they go
To pray. God hear their prayer!
Only the leader brings increase,
And I, since like a chatter-crow
I talk, the name I'll bear.-

The Second Group. Only our Lady I would please Our Lady, who has sent release, And made our troubles all to cease, When Hegesichore brought peace,

Sweet peace, for all to share.-

## All.

The car must run behind the horse, And mariners at sea, of course, Obey the man that steers: Our leader sings, not better than The Sirens, no, for no one can, No mortals are their peers: She's worth eleven maidens, when You hear the singing of the ten, A lovely swan with plumage white, Singing where Xanthus stream runs bright......
' I have had a most rare vision,' cries the unsophisticated reader, and is apt to add 'I have had a dream-past the wit of man to say what dream it was.' His confusion is not lessened when the commentators go about to expound. Is Agido the leader, or Hegesichore? Is the dance an act of worship, or a competitive display, or simply a piece of domestic merry-making? Are the dancers twenty-one in number, or twelve, or eleven, or ten ? Do they sing together, or in groups, or one by one, or how? Or is this latter part of the poem an address to the thiasus, delivered by one member after the choral solemnity, the song of 'the cousin of Hegesichore,' who praises all her companions but leaves herself unnamed? In a matter of such difficulty, perhaps even the mistakes of an amateur may help. In my version many difficulties are shirked and many liberties are taken ${ }^{1}$. The attempt has been to suggest the spirit of the original. But I have tried strictly to follow the natural (Greek) emphasis of

[^78]the sentences, to observe the logical connections and to distinguish singular from plural pronouns.

We do not know the conventions of Alkman, but, until we have some reason for doubt, we ought in so simple a poet to expect a simple convention, and in so lively a poet to expect that the words have point and the order of the words has point. So we start by translating $\dot{\epsilon} \gamma \omega \nu$ as $I$ and $\hat{\alpha} \mu \nu \nu$ as $u s$, leaving open the question whether the singular is used by a soloist or by a group of singers, but assuming (for it is an assumption) that $\dot{\dot{c}} \mu \nu \nu$ refers to the whole chorus, é $\gamma \omega \dot{v}$ to a part. We next notice that in


 Greek implies a contrast between two persons or groups. Unless we are prepared to admit that the plea 'The $\lambda \epsilon$ ' $\xi$ เs is єiро $\mu \in ́ \nu \eta$ ' (admissible enough in 57-8 'A $\gamma \eta \sigma \iota \chi$ ó $\alpha$ а $\mu \epsilon ̀ \nu$ $\alpha \dot{\prime} \tau \alpha, \dot{\alpha} \delta \dot{\epsilon} . .$.$) can excuse intolerable flatness and neglect of$ the order of words ${ }^{1}$, we are driven to abandon the attractive theory that the whole is sung continuously by one soloist. At least two singers or two groups of singers are contrasted. Now in $70-72$ a group of four persons is mentioned by name, and in $73-76$ a group of four or five (Ainesimbrote may be a school-mistress like Sappho and take no part, or she may be the leader of her group ${ }^{2}$ ). With Agido and Hegesichore the performers mentioned by name are therefore either ten or eleven. But ten and eleven are the numbers mentioned in $98-99$, in a sentence which is difficult, but clearly has reference to the number of the singers. It is perverse to resist the doctrine of von Wilamowitz that the list of names in $70-76$ is pointless if any member of the thiasus is omitted. Whether the whole company consists of ten or eleven, depends on Ainesimbrote: if she performs, we have a half chorus of four plus Agido, the sub-leader, answered by a half

[^79]chorus of five, who are more modest, as befits the members of the second rank, and praise Hegesichore the leader of the whole company. If Ainesimbrote is not a performer we have two companies of five, made up respectively of $4+$ Agido and of $4+$ Hegesichore. On the former view $\dot{\alpha} \nu \tau i \delta^{\prime}{ }^{\prime \prime} \in \nu \delta \delta \kappa \alpha \ldots$ has more point ${ }^{1}$, but I am doubtful whether és Aivnбıuß ótaos allows us to make Ainesimbrote a performer.

All this is, of course, not proven ${ }^{2}$. We do not know the conventions. Pindar does not help us. Even in his Daphnephoricon his chorus is highly conventionalised-but not once do they speak of themselves in the plural. In the Epinikia the formalism is even more apparent, though we shall hardly find a parallel for the supposed 'conventional' variation between singular and plural (I mean a passage in which the variation makes so crude an effect as the variations attributed by the current view to Alkman). Sophocles, though his chorus generally uses the singular, has occasionally variations which might serve as a parallel. We turn to Aeschylus to see whether the older tragedy was more or less wooden in this respect than the Sophoclean. Here again we find variations, but none so violent as the few in Sophocles, and none at all like the alleged enormities of Alkman. On the whole the treatment by Aeschylus is more natural, as we should expect, than that of Sophocles. It is worth while to notice especially those passages in Aeschylus in which the chorus breaks into groups, or (we do not know how formally or how informally they were divided) into semi-chorus. It is difficult to believe that in the last scene of the Persae no reality corresponds to the numerical difference between
 imperative $\gamma^{\circ} \bar{\alpha} \sigma \theta \epsilon$. Difficult as they are to interpret, it

[^80]is clear that the shifts from singular to plural are dramatically significant in the mouth of Clytaemnestra when she wakes the Furies, and in the mouths of the Furies as they respond. If we believe that $\epsilon \in \pi \alpha^{\prime} \theta o \mu \epsilon \nu, \pi \alpha \theta o \bar{v} \sigma \alpha \ldots \epsilon ่ \gamma \omega$, $\dot{\epsilon} \pi \alpha \dot{\alpha} \theta_{0} \mu \epsilon \nu, \dot{\alpha} \gamma \rho \alpha \nu \ddot{\omega} \lambda \epsilon \sigma \alpha$ are simply conventional variants, we shall probably believe that the poem of Alkman was sung continuously by his whole chorus in unison. If we
 chorus at the end of the Supplices, we shall refuse to believe that in Alkman the $\dot{\epsilon} \mu \epsilon$ which introduces the praise of Hegesichore is sung by a different group from the singers ( $\dot{\epsilon} \gamma \omega \nu)$ of the praise of Agido. Further, if we ignore the metrical doctrine of Walter Headlam, and refuse to accept his interpretation of Supplices 86 sqq . and Cho. 622, we shall probably refuse to allow the chorus to divide in the course of the strophe, and at different places in successive strophes ${ }^{1}$. For my part, I believe that the chorus of Hegesichore treats strophic pedantry with a freedom as remarkable as the freedom with which it treats the charms of its leaders.

The freedom with which Aeschylus handled his chorus is, so far as it goes, encouraging. But tragedy is strictly irrelevant, and the only test our ignorance allows is the admittedly unsatisfactory test-whether our theory works when it is applied. If we are allowed to imagine a lyrical dialogue between two groups, we have a simple convention, the words have their natural stress and the whole poem gains point. But other serious difficulties disappear.

What, on the continuous theory, is made of $\delta о к є \hat{\imath} \gamma \alpha^{\prime} \rho$

 òvєípov?
év $\beta$ ßotois, though not generally understood, is simple
 among cows,' for Kaibel was right in saying that $\beta$ otá are

[^81]not specifically bovine ; but still less ' a fine horse among common horses,' for not all $\beta$ o $\alpha \dot{\alpha}$ are horses, and the finest of horses are still $\beta o \tau \alpha$, , and the phrase is not $\dot{\epsilon} \nu \dot{\prime} \pi \pi \pi o \iota s$

 $\pi \alpha \dot{y}^{\circ} \nu{ }^{\prime \prime} \pi \pi \pi \alpha$. The rhythm and the natural stress of the sentence forbid us to drag the adjectives into service. The meaning is this :-since $\beta$ otá are all manner of grazing creatures, cows and horses both included, and since év $\beta$ o-



 (Isthm. vi. 74), is himself an athlete, and more, a maker of athletes. Similarly Pytheas (Ist/m. v. 59) is $\epsilon v$ gutoסápass the finest possible boxer, namely one who has run 'the race of blows' as well as Phylacidas himself-a fine compliment to Phylacidas, too often misunderstood. We lack the idiom in English, and in my version I have allowed myself the picturesque inaccuracy of 'cows.' Similarly it is impossible adequately to translate Pindar's $\dot{\alpha} \rho \iota \sigma \tau o \nu \mu \dot{\varepsilon} \nu \dot{v} \dot{v} \delta \omega \rho$-'Just as water is best in one sphere, gold the most precious of precious things, the sun brightest of lights and hottest of hot things, so among festivals the Olympian games are greatest.' Hegesichore
 й入ıos: she is called $\dot{\epsilon} \nu$ ßoтoîs $i \pi \pi o s$.

The serious difficulties now begin, when the singers, as we are told, pass from flattery to hyperbole. To translate 'a horse such as one sees in winged dreams,' adding that 'the genitive is descriptive' is to ignore $\tau \bar{\omega} \nu$ and to imply that an impossible genitive is made possible if we give it a label. The best that can be done (on the continuous theory) for $\tau \hat{\omega} \nu$ and the genitive is to translate 'a horse

[^82]from the stock of, from the breed of winged dreams ${ }^{1}$.' On this view, grammatically defensible, we have to admit that $\tau \hat{\omega} \nu$ implies familiarity of the poet or his audience with the notion of horses born of dreams, or of horses born of a certain class of dreams 'winged' or 'living under rocks.' But there is no evidence for such a breed. Horses, we know, might have wings : Pegasus, sired by Poseidon and foaled by Medusa, we remember. And there are horses that were sired by Zephyrus and Boreas ${ }^{2}$. But the offspring of dreams have left no memory. Still, we are asked to believe that since Winds and Furies and Harpies and some gods could take equine shapes, therefore dreams may have done the same thing. And if winds beget horses, why, indeed, not dreams? Of course, if they did, there is no more to say. But the bare possibility does not greatly help us to decide whether on the strength of this one passage we are to add dream horses to our list of marvels. We are further distressed when we try to imagine what manner of horses these would be. If this is really a compliment to Hegesichore, we may be sure that the dream horses are not $\sigma \phi \epsilon \tau \epsilon \in \rho a$ єiкóta 子évva. Homer called dreams, true dreams as well as false, $\dot{\alpha} \mu \epsilon \nu \eta \nu \bar{\omega} \nu$
 $\alpha_{\alpha} \nu \theta \rho \omega \pi \sigma$ Sindar says, and the old man in Aeschylus óva $\rho$
 dotus (i. I20), flattering their master with the assurance $\tau \dot{\alpha}$
 feeble Oedipus, bidden (Eur. Phoen. 1722) $\tau \hat{\alpha} \delta \epsilon \pi$ тóo $a \tau_{i}{ }^{i} \epsilon t$ $\ldots \ddot{\omega} \sigma \tau^{\prime}$ óv $v \epsilon \rho o \nu$ ( $i \sigma o ́ v \epsilon \iota \rho o \nu$ ) i' $\sigma \chi \nu \nu$; of the contemptuous
 divided his empire into satrapies $\hat{\dot{\omega} \nu}$ каi $\nu \bar{\nu} \nu$ étı $\sigma \mu \kappa \kappa \rho \dot{\alpha}$
 glories which, the comedian wrote, compared with the
 (Meineke iii. p. 395). This is the normal Greek concep-

[^83]tion of dreams, and we may add, if we are unscrupulous, that on the principles of some eugenists our ideal horse is likely to prove blind as well as feeble (Nauck Fr. Ad.





But perhaps, after all, we may be invited still to ignore $\tau \hat{\omega} \nu$ and label the impossible genitive, translating 'horse such as one sees in dreams.' This is fair sense, for after all, some dreams are pleasant, though all are unsubstantial. Indeed wretchedness proverbially ơvaן $\pi \lambda o v \tau \epsilon i$. A poor man dreams of riches, a starveling of food, a cold man of warmth ${ }^{1}$. But we look in vain for anything that implies the notion that we need. We want an opinion so well known as to create a general presumption that anything seen in dreams is likely to be good of its kind. The dream house must be normally a fine house; if we can prove that, we shall naturally understand that a dream horse is a fine horse. The commentators quote Theocr.
 óveıpos á申'́voto where the matter is still one of quantity, not quality. The best I can produce is Eur. Fr. $533^{\text {'A A }} \boldsymbol{\delta}$ ou бкótos oúó єis òvelpov jंóús... If this contents us, we must remember that we have still to reckon with our sin against $\tau \bar{\omega} \nu$. But we are not content, for we desire
 (Od. xix. 547).
$\dot{v} \pi о \pi \epsilon \tau \rho \iota \delta i \omega \nu$ adds something to our difficulty. The interpretation 'under rocks' has no better defence than the fact that winds in Homer live in a cave. The ingenious synthesis of Ovid (Met. xi. 59I sqq.) has only to be read in order to be dismissed as irrelevant. On the whole (though we cannot be certain about 'Laconian fancy '), since philologists allow the form $\dot{\sim} \pi \circ \pi \epsilon \tau \rho \iota \delta i(\omega \nu$ for

[^84]$\dot{v} \pi o \pi \tau \epsilon \in \rho \omega \nu$, since dreams are often winged, since the alleged cave is irrelevant and (for dreams) unsupported, we prefer 'winged.' Horses with wings are swift. So, we are to suppose, are winged dreams. But the matter is not so simple. Elsewhere in Greek poetry the wings of dreams have another purpose than mere swiftness-winged dreams are transient, cheating, swift to fly away. The dreamer,
 $\dot{\epsilon} \lambda \pi i \delta a s{ }^{1}$. The more false the dream and the more absurdly òєє $\rho \dot{\omega} \tau \tau о \mu \in \nu$, the more surely is our dream winged.



 $\pi \alpha \rho \dot{\alpha} \kappa \lambda \eta \imath \hat{\delta} \alpha \alpha \lambda_{t} \alpha \dot{\sigma} \theta_{\eta}$ '่s $\pi \nu o c \dot{\alpha}$ s $\dot{\alpha} \nu \epsilon ́ \mu \omega \nu$, and Oedipus (Eur.
 óvetpov. The point is clear in Eur. I. T. 569-571,
 $\epsilon \sigma \sigma \epsilon \rho o c$. There is an exception Eur. Hec. 70 (and again 702) in the case of the 'black-winged' visions, sent by their mother earth, winged like кйрєs or $\dot{\epsilon} \rho i \nu v \epsilon s . \quad$ Normal usage certainly does not suggest that $\dot{v} \pi o \pi \epsilon \tau \rho 1 \delta i(\omega \nu$ is likely to be felt simply as a conventional epithet like 'wingswift': it rather suggests that the compliment to Hegesichore, imperilled by the associations of óvє $\epsilon \rho o$, , is weakened again by $\dot{v} \pi о \pi \epsilon \tau \rho \iota \delta \dot{\prime} \omega \nu$.

Admit that we have here a playful interruption ${ }^{2}$, and everything falls into place. $\tau \hat{\omega} \nu$ is now correct, $\dot{v} \pi o \pi \epsilon-$ $\tau \rho \delta i(\omega \nu$ has its natural meaning, the dreams are really






[^85]òє́ipaт $\lambda \bar{\lambda} \gamma \omega \omega \nu \grave{\eta} \pi \lambda \alpha \alpha^{\prime} \tau \tau \omega \nu$ (proposing an Utopia)). Finally $\bar{\eta}$ oúz ópīs is the natural rejoinder of the interrupted flatterers.

As for the genitive, though Gregory of Corinth will have it that the use without $\phi \in \hat{v}$ or $\hat{\omega}$ or the like is Attic, his commentators long ago remarked 'ne credamus Gregorio, admonet Theocritus xv. 75 रр $\eta \sigma \tau \bar{\omega}$ коіктіриоvos à $\mathbf{\delta} \rho \mathrm{pos}^{\prime}$.' Indeed it is not specially Attic to omit or to insert the exclamatory word. We read in Eur. Bacch. 273 $\tau \bar{\eta} s \quad \delta v \sigma \sigma \epsilon \beta \in i a s$ (Reiske), and feel no difficulty when
 Ach. 770, when Mr Starkie invites us to read $\tau \hat{a} s ~ \alpha \pi \iota-$ $\sigma \tau i a s$ for the impossible $\tau \dot{\alpha} \mathrm{s} \dot{\alpha} \pi \iota \sigma \tau i a s$ we are not deterred, even if we are not encouraged, by the fact that the speaker, like the gossips of Theocritus, like the maidens of Alkman, is Dorian.

On many points the version will explain itself. I have made the Peleiades a rival chorus, partly because I
 'fight on our side,' but still more because, if the constellation is suggested (and by av̇є $\rho \frac{\rho}{\mu} \mu \nu \alpha \iota$ it surely is), I cannot believe that Agido and Hegesichore are meant. The constellation might do as a comparison for a single person, would certainly suit a group of seven, and would probably suit a small group of any number large enough and not too large. But it will not do for two persons. The connection is natural if we realise that in ठca申cióav тi $\tau o \iota ~ \lambda e ́ \gamma \omega$; the admirers of Agido suggest a compromise. They admit that Hegesichore deserves all the praise she has received, slyly insist that Agido deserves more, and finally allow that they shall run as a wellmatched pair, a Scythian and a Lydian-about which the audience, like the commentator, would be hard put to it to decide which was intended to be the superior. And the compromise is proposed, because ( $\boldsymbol{\gamma} \dot{\alpha} \rho$ ) there are rivals in the field, and union is necessary.

So they all join in a modest declaration that their
finery is not enough to win the victory (which is not, as Kukula seems to think, an admission that they are shabby —such modesty is simple modest boasting). But presently mischievous comparisons begin again. The party of Hegesichore, this time the aggressors, half seriously deny that the charms of Agido's companions are irresistible : this brings the retort that Ainesimbrote's companions are themselves no more desirable than the rest, but the faithful five reply that Hegesichore is enough for their defence. While they sing this confident rejoinder, they see that Hegesichore has danced away to the side of Agido, joined hands with her, and so brought final reconciliation.

So, I have told my dream. Whether, ȯvєı $\alpha \dot{\tau} \tau \omega \nu$ סíкп $\nu$,
 $i \pi \pi o \gamma \nu \omega \dot{\mu} \omega \nu$ himself will tell me. If I am deceived, I will burn my books like Metrocles, and say $\tau \alpha^{\prime} \delta^{\prime} \epsilon_{\epsilon} \sigma \tau^{\prime} \dot{o} v \epsilon i \rho \omega \nu$ $\nu \cup \kappa \tau \epsilon ́ \rho \omega \nu \phi a \nu \tau \alpha ́ \sigma \mu \alpha \tau \alpha^{1}$. But I have hope, since even in Greek not all winged shapes are always deceptive: oúd̀̀
 $\mu \in \nu o{ }^{2}$.

J. T. Sheppard.

[^86]
## SOPHOKLES, ICHNEUTAE, COL. ix. I-7,

AND THE $\delta \rho \omega ́ \mu \epsilon \nu о \nu$ OF KYLLENE AND THE SATYRS
The Satyr-Trackers with their leader Silenus are in full cry after the cattle of Apollo. Suddenly they stop, frightened by a strange sound. Silenus scolds them for their cowardice. They take heart; but again break off, terrified by a repetition of the unknown sound which seems to issue from the ground. They ask who and what is there, but get no answer. Silenus takes the matter into his own hands. By leaping and kicking on the ground he will find out what the noise is and who is making it.

$$
\begin{aligned}
& \pi[\eta] \delta \dot{\eta} \mu а \sigma \iota \nu \text { краıтлоīбь каі } \lambda а к т і \sigma \mu а \sigma \iota \nu
\end{aligned}
$$

The summons of Silenus is answered. Kyllene appears, protesting against their tumultuous onset upon her wooded hill.
${ }_{\epsilon} \quad \nu[\theta] \eta \rho o \nu \dot{\omega} \rho \mu \eta \dot{\eta} \theta \eta \tau \epsilon \sigma \dot{v} \nu \pi о \lambda \lambda \hat{\eta} \beta o \eta \eta ;$

Whence and how does Kyllene appear, and why does Silenus summon her by making a $\pi \epsilon ́ \delta o \rho \tau о \nu \kappa \tau \cup \dot{\pi} \pi \nu \quad$ by means of $\pi \eta \delta \dot{\eta} \mu \alpha \sigma \iota \nu$ краıт $\frac{\imath \imath \sigma \iota}{}$ каі $\lambda \alpha к т і \sigma \mu \alpha \sigma \iota \nu$ ? If Kyllene is living in a hill cave, why does he not, instead of stamping on its roof, come round and knock properly at the cave-door? Is it mere unmannerliness, or does there lie behind some traditional ritual usage?

Kyllene lives not only in some sort of cave but in or on some sort of hill, a 'wooded hill, abode of wild things.' This combination of cave and hill recalls immediately a class of vases which have long puzzled archaeologists and of which a specimen ${ }^{1}$ is given in Fig. I.

The design looks almost like an 'illustration' of the scene in the Ichneutar. Goat-daemons and horse-daemons, Satyrs and Silenoi are leaping and kicking round a hill or


Fig. 1.
artificial mound. In answer to their summons a figure rises up from the cave inside the mound. The hill is
 and the upspringing tree.

But the vases, though their analogy to the scene in the Ichneutae is clear, do not take us much further. What is the exact nature of the hill-cave out of which rises the nymph or goddess? Is it a fancy structure or has it any

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corresponding reality? Vitruvius ${ }^{1}$ explains what the vase-painter leaves obscure.

- Phryges vero, qui campestribus locis sunt habitantes, propter inopiam silvarum egentes materia eligunt tumulos naturales, cosque medios fossura distinentes et itinera perfodientes dilatant spatia quantum natura loci patitur. Insuper autem stipites inter se religantes metas efficiunt, quas harundinibus et sarmentis tegentes exaggerant supra habitationes e terra maximos grumos. Ita hiemes calidissimas, aestates frigidissimas efficiunt tectorum rationes.'


Fig. 2.


Fig. 3.
The custom was not confined to the Phrygians. Xenophon ${ }^{2}$ tells us of similar hill-cave dwellings among the Armenians, and he adds important particulars as to the modes of entrance.



[^88]


The kind of dwelling described by Vitruvius and Xenophon is roughly shown in the diagram in Fig. 2.

Considering their dubious character, it was a delicate question by which mode of ingress, ladder or dromos, etiquette demanded that the Satyrs should enter. They decide for humanity's right of way. The well-like entrance at the top of the cave would be closed presumably by a large stone. On this, the regulation front-door, they would knock by stamping with their feet, which was indeed the simplest and most practicable method. Kyllene hears them and rises in majesty from her underground cave through her own front- or rather top-door. Her Epiphany must have been after the fashion of the Earth-Goddess in the vase-painting (Fig. 1).

If we ask the natural question, how could such an uprising be represented on the actual Greek stage, the answer is, I think, clear. The Greek theatre was provided with convenient apparatus for this very purpose, the $\chi$ apévoo $\kappa \lambda$ 'іракєs, 'trap doors' of Pollux ${ }^{1}$. Nor are we left to literary testimony. At Eretria and at Sikyon ${ }^{2}$, a stairway leads down from the proskenion, underground by a vaulted passage, and up again by another staircase into the orchestra. Nothing would be simpler than to erect a temporary $\chi \bar{\omega} \mu \alpha \gamma^{\prime} \bar{n} s$ over the trap-door in the orchestra, out of which Kyllene ${ }^{3}$ would arise, and round which the Satyr chorus would dance. Up through this trap-door

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the ghost of Dareios also rose and the apparition of Sisyphos which Æschylus, in a Satyr Play, describes as a colossal field-mouse coming out of a hole ${ }^{1}$.

Yet another point remains. Kyllene, after she has remonstrated with the Satyrs as to their unseemly onset, tells them of the divine child now dwelling in her cavehouse, of its parentage and miraculous growth to maturity -how like a 'blossoming branch' it shot up, and by the sixth day the babe was a full grown youth. She ends her account thus (Col. xir, v. io):

Her cave-dwelling was a Treasury not only because for once it held a Wonder-Child but, it would seem, normally and naturally. We have seen from Xenophon that such a dwelling housed not only the human family but its flocks. and fowls. It was above all, as Tacitus ${ }^{2}$ notes among the Germans, the safest and most salubrious of granaries.
'Solent et subterraneos specus aperire eosque multo insuper fimo onerant, subfugium hiemis et receptaculum frugibus, quia rigorem frigorum ejusmodi locis molliunt, et si quando hostis advenit, aperta populatur, abdita autern et defossa aut ignorantur aut eo ipso fallunt quod quaerenda sunt.'

Diodorus ${ }^{3}$ gives us a glowing picture of the warmth and comfort of these underground 'Treasuries' for man and beast. The Greeks who went to help Cyrus against Artaxerxes were retreating through Armenia when they were overtaken by a terrible snowstorm. A whirlwind of hail blew in their faces; their bodies were stiff with ice ; their beasts of burden fell dead about them ; they themselves must have perished, when happily they came on a village of these hill-cave dwellings;

[^90]'these had passages for the cattle dug through the earth, but the people went down by ladders underground, and for the flocks there was hay and for men great abundance of all things needful for life ${ }^{1}$.'

Long after man had learnt to build solid houses above ground, underground houses went on as 'Treasuries' for all manner of stores and especially for grain. Varro ${ }^{2}$ in two passages speaks of underground granaries in both northern and southern countries.
'Quidam granaria habent sub terris, speluncas, quas vocant $\sigma \in \iota \rho o u ́ s ~ u t ~$ in Cappadocia, ac Thracia. Alii, ut in Hispania citeriore, puteos, ut in agro Carthaginiensi et Oscensi. Horum solum paleis substernunt : et curant, ne humor aut aer tangere possit, nisi cum promitur ad usum. Quo enim spiritus non pervenit, ibi non oritur curculio. Sic conditum triticum manet, vel annos quinquaginta; milium vero plus annos centum.'

And again he notes the importance of allowing time for ventilation when these underground chambers are opened, on account of the accumulation of dangerous gases.
'Sub terra qui habent frumentum in iis quos vocant $\sigma \epsilon \iota \rho o v{ }^{\prime}$, quod cum periculo introitur recenti apertione, ita quibusdam sit interclusa anima, aliquanto post promere, quam aperueris, oportet.'

More important still is another conservatism of man. Long after he builds overground dwellings for himself, he houses his dead in hill-caves, and these he still calls 'Treasuries,' not merely because of the treasures of gold hid by a particular king but because from the outset they were storehouses for man and beast. Is the 'Treasury'

[^91]of Atreus a treasury or a tomb? It is both, because it descends from another and an earlier form, the underground hill-house.
'The treasury of Minyas,' says Pausanias ${ }^{1}$, 'than which there is no greater marvel in Greece or elsewhere, is constructed as follows: It is made of stone : its form is circular, rising to a somewhat blunt top, and they say that the topmost stone is the keystone of the whole building.'

Down to late days the ordinary Greek money-box ${ }^{2}$ was a miniature 'Treasury' (Fig. 4) shaped like a beehive tomb. A section of the 'Treasury' of Atreus is shown in Fig. 3; its analogy to the underground hill-house in Fig. 2 needs no emphasis.

This 'Treasury' of Orchomenos is specially instructive, because at Orchomenos we find, not


Fig. 4. only the underground treasury tomb, but also the circular foundations of the overground house that succeeded it ${ }^{3}$. Gradually, it would seem, the underground hut ventured to emerge to the upper air. The shape long remained round, that being the simplest form for a structure made of earth or clay or twisted boughs. The square form, so much more handy for the divided dwelling, needed a knowledge of post architecture. The round and oval buildings found by the excavators at Orchomenos have stone bases. These only remain, the upper portions of clay having naturally perished. The round form died hard. It was long maintained in Greece for sacred purposes in Prytaneia, Tholoi, temples of Hestia, and the like; and an

[^92]underground sacred structure was in use in the days of Pausanias in the oracle of Trophonios. It is not a little curious that, while the excavators at Orchomenos were digging out the foundations of the round houses, a village of $30-40$ round huts was set up close at hand as a winter residence by a number of Vlachs ${ }^{1}$.

The examination of all the sacred survivals of the underground hill-hut would take us much too far, but one instance is so instructive as to the 'Treasury' aspect that it must be briefly noted-the famous mundus of the Romans. Plutarch ${ }^{2}$ records that at the founding of Rome a circular pit was dug and first-fruits of all the necessaries of life were thrown in and each of the settlers brought a piece of earth from his own country and threw it in. This circular pit was called the mundus from its skyshaped dome, and round it as centre the city was-built. On three days in the year, August 24, October 5, November 8 , the mundus was open.

Mr Warde Fowler in his recent paper Mundus Patet ${ }^{3}$ has shown, I think conclusively, that it was as storehouse that the mundus was opened. On August 24, just before the Opiconsivia, the mundus was opened to receive the new seed-corn for storage. It was henceforth, for safety, concealed in this sacred storehouse below the ground. On October 5 the mundus was opened to take out the seedcorn of the rough grain known as far; on November the 8th it was opened to take out the superior wheat (triticum), the sowing of which Virgil ${ }^{4}$ tells us was better postponed till after the setting of the Pleiades.

[^93]The opening of the mundus had, however, according to Varro ${ }^{1}$, another purport :
' Mundus cum patet, deorum tristium atque inferum quasi janua patet.'
Of this Plutarch makes no mention, but it took strong hold on the popular imagination. Why do ghosts and seed-corn emerge on the same days from the same receptacle? Mr Warde Fowler thinks the gloomy exit of the ghosts may be a notion superimposed by a later people much concerned with thoughts of the underworld. But a simpler explanation lies to hand. The same structure, we have seen, is Treasury, Store-House, Tomb. Ghosts and seed-corn from the outset dwell together. It is indeed, perhaps, the main business of the ghosts in death to guard and tend the seed-corn, to foster the eternally recurrent cycle of panspermia and pankarpia. The Romans seem to have stressed their autumn sowing at the Mundus patet, the Greeks the work in the spring at the Anthesteria with its Pithoigia ${ }^{2}$.

The ritual of the Mundus patet has, I think, in the fate that at Rome overtook the guilty Vestal, a ghastly counterpart that seems to have escaped notice. She who lost her virginity was buried alive, but with ceremonies so elaborate that they must surely have ritual significance. Plutarch ${ }^{3}$ writes thus-









[^94]In dread procession the victim bound and gagged was carried on a bier to her living tomb. Dread prayers were said presumably to the underworld daemons, hands were uplifted to the gods of the upper air in token of



We cannot, of course, say that the shape of the mundus is paralleled, indeed the expression óфрùs $\gamma \epsilon \epsilon$ oions $\pi \alpha \rho a \tau \epsilon \dot{\prime}$ and narrow, not a circular mound. But one thing is clear, the Vestal who in life dwelt in the 'Regia' was not merely buried, she was sent to dwell in an underground furnished house of the neolithic pattern we have seen, approached from above by a ladder. When the ceremony was over $\ddot{\eta} \tau \epsilon \kappa \lambda i ́ \mu \alpha \xi$ d̀ $\nu \alpha i \rho \epsilon \tau \alpha \iota ~ к \alpha i ~ к \alpha \tau \alpha к \rho и ́ \pi т \tau \epsilon \tau \alpha \iota ~ \tau \grave{~}$



The particular shape of the underground house is a mere detail; the all-important point of analogy with the mundus is that in the tomb-house of the Vestal as in the mundus $\dot{\alpha} \pi a \rho \chi \alpha i$ were stored. The word $\dot{a} \pi \alpha \rho \chi a i ́ c a n n o t$ mean merely specimens of food; the mundus, as Mr Warde Fowler has abundantly shown, was the receptacle of the seed-corn for next year. The sheaves of seed-corn are the $\dot{a} \pi \alpha \rho \chi \alpha^{a i}$ from which next year's crop takes its start, begins ${ }^{1}$. Had not the $\dot{\alpha} \pi \alpha \rho \chi \alpha \dot{i}$ buried with the Vestal the like intent? By Plutarch's time their meaning was lost ; they were just bits of food given to the victim that the pollution of murder might be avoided.

But why, if not originally for vengeance, was the Vestal buried? The couch buried with her is grim evidence. In Java, Mr Warde Fowler ${ }^{2}$ reminds us, two garlands are made of ears of rice and called the rice-bride and rice-bridegroom....Later on, when the rice is being

[^95]got in, ' a bridal chamber is partitioned off in the barn, furnished with a new mat, a lamp and all kinds of toilet articles.' Sheaves of rice, to represent the wedding guests are placed beside the bride and bridegroom. The practical Roman saw that this wedding to fertilize the earth had best be underground. Thither to meet her underworld bridegroom, her Plouton, they led the living Kore, and underground the bridal bed was strewn.

For this mortal Kore there was no uprising, and no Epiphany of the Wonder-Child.

To Kyllene and the Icbreutae we return.
The Homeric Hymn ${ }^{2}$ records vaguely that Hermes was born in a shadowy cave. The infancy of the WonderChild is much more clearly presented on an 'Ionian' hydria ${ }^{3}$ reproduced in Fig. 5. To the right the infant Hermes is lying on a bed, watched probably by Zeus and his mother Maia and an attendant woman, possibly, though by no means certainly, Kyllene. There is nothing here to indicate the cave except the unfinished curved lines to the left which frames in the picture. As counterpart to the infant Hermes we have the stolen cattle, and here the painter clearly intends to represent a $\chi \lambda \omega \epsilon \rho o ̀ \nu ~ v i \lambda \omega \dot{\delta} \eta \pi \alpha ́ \gamma o \nu$


[^96]Kyllene then issues, in the Icbneutae, not vaguely from the earth or a cave but from her neolithic cave-mound house. Is this merely a vividly realised incident in a divine biography or is it an echo or travesty of some actual ritual? If we examine the series of 'Anodes' vases it is, I think, impossible to avoid the conclusion that some ritual act is represented ${ }^{1}$. Scholars are indeed practically unanimous in believing that we have here the rising of some form of Earth-Mother or Earth-Maiden. This rising is induced or accompanied by a ritual dance of Satyrs who beat with their feet upon the ground. Now


Fig. 5 .
Kyllene is nothing but a local Earth-Maiden; she rises from the Earth to announce the Epiphany of the wonderchild Hermes, whose swift, supernatural growth from infancy to maturity she details at length. In a word, the scene presented in the Ichneutae is a form of the Spring dromenon, the resurrection of life and nature from its winter death.

This $\dot{\alpha} \nu \alpha ́ \kappa \lambda \eta \sigma t s$, this rite of summoning up or back, left traces in mythology. One of the most instructive is the myth of the resurrection of Glaukos represented on

[^97]the cylix in Fig. 6; the story told by Apollodorus ${ }^{1}$ is well known. Glaukos, son of Minos, King of Crete, while yet a child, was chasing a fly, and falling into a pithos of honey he died. When he disappeared Minos had a great search made. He summoned his mantic priests, the Kouretes. The riddle they set in canonical fashion was solved by Polyeidos, who thereby proved his power to find the child. An owl showed him the way. The child was found, but Polyeidos could not restore him to life. Minos shut up the dead child and the seer in a


Fig. 6.
beehive tomb. There, on the cylix ${ }^{2}$ with white ground in Fig. 6, we see them ; the child Glaukos crouching in the characteristic burial pose. A snake attacks the child's body. Polyeidos slays the snake. Another snake brings a magic herb and resuscitates his dead companion. Polyeidos by the same magic herb restores Glaukos to life.

[^98]Setting aside the many fanciful details with which the story was tricked out, it is clear enough that we have a resurrection-myth, based no doubt on a ritual dromenon. We have the loss of the child, the death, the burial in a pithos, possibly the partial embalming in honey, then the summoning of the Kouretes, the ritual search, the final resurrection, and epiphany of the living child by the help of the snake. The myth was the subject of the K $\rho \bar{\eta} \sigma \sigma \alpha \iota$ of Eschylus, the Máviєıs of Sophokles and the חo入úı $\delta$ os of Euripides. It is not a little interesting that from this last play came the famous lines parodied by Aristophanes ${ }^{1}$ :

The myth of Glaukos was, Lucian ${ }^{2}$ tells us, the subject of a ritual dance, and, most significant of all, it gave birth to a proverb ${ }^{3}, \Gamma \lambda a \bar{v} \kappa о s \pi \iota \omega \dot{\nu} \mu \epsilon ́ \lambda \iota \alpha \dot{\iota} \epsilon_{\sigma} \tau \eta$, which is explained as follows, 'said of those who are announced to have died and then to bave appeared again.'

I have elsewhere ${ }^{4}$ discussed the nature of this dromenon and need only recall here that perhaps its simplest form was the calling or summoning of the Year-God in male or female shape. We can only conjecture that the summons was answered either by a voice or by the appearance of a figure rising from somewhere underground. In any case the scene must have clearly paralleled that presented to us in the Icbneutae and depicted on the Anodos vases.

Happily we know that at Athens there was an actual ceremony of summoning the earth-goddess in spring, performed it would seem yearly, a ceremony that must frequently have been witnessed by Sophokles. Pindar ${ }^{5}$ wrote a dithyramb for it. He bids the Olympians come

[^99]to the omphalos of the city, smoking with incense, where many feet are treading, and to the market-place by every art enriched of blessed name.

| тодข́ßатоу оїт' äбтєоs ò $\mu \phi а$ дò $\nu$ Өvóє $\tau \tau а$ є̀v $\tau a i ̂ s ~ i \epsilon \rho a i ̂ s ~ ' A \theta a ́ v a l s, ~$ <br>  |
| :---: |
|  |  |
|  |  |

The passage has called forth wild conjectures. The wildest is perhaps that the 'omphalos' was a 'poetical phrase for the Acropolis.' One thing however is certain : whatever that omphalos was, it stood in the agora, and the agora was certainly not the Acropolis. The puzzle has been, how could the omphalos, if omphalos it was, smoke with incense, and what had the omphalos to do with 'the calling of crowned Semele' with which the dithyramb ends?
ó $\mu \phi \alpha \lambda \grave{\nu}, \pi \rho \nu \tau \alpha \nu \epsilon i o \nu \theta o \lambda o \epsilon \iota \delta \epsilon \in s$ non procul ab orchestra in foro positum recte intellexit Boeckh. So Christ. Boeckh was indeed substantially right, though he did not, and scarcely could, realize the ritual import of his conjecture. The circular tholos-shaped prytaneion is the overground descendant of the neolithic underground hut. The omphalos is, I believe, but an underground hut, at once a dwelling-house and a tomb, which has half emerged. Omphalos and treasury tomb are practically indistinguishable. From such an omphalos house-treasury-tomb Kyllene, the local earth-mother, emerges on the hill of Kyllene, and Semele in the agora at Athens. 'What the Greeks call the omphalos,' says Varro ', 'is of the shape of a thesaurus, and they say it is the tumulus of Python.'

The omphalos smokes with incense because it is the city hearth, the centre of all things. There is the central

[^100]sacred fire and round it, to shield it, is built the primitive hut. This explains at once the difficult expression $\mu \epsilon \sigma-$ ó $\mu \phi \alpha{ }^{1}{ }^{1}$, difficult only because the conditions are not understood. The hearth is $\mu \epsilon \sigma o ́ \mu \phi a \lambda o s$ in a quite literal way; it is in the middle of the mound. Kyllene would have a fire in the middle of her hill-cave house ${ }^{2}$. That central hearth is the first altar of the home ; personified it becomes 'E $\sigma$ тía. It is also the oracular seat, because there the spirits of dead as well as living cluster ${ }^{3}$. The city hearth was necessarily the place for all ceremonies of fertility because there were gathered the ancestral ghosts. Such a fertility ceremony disguised and half-forgotten we have in the Icbneutae, the tracking, the summoning, and the epiphany of the Mother and the Wonder-Child, the wionos $\theta$ єós ${ }^{4}$.

I would guard against a possible misapprehension. I do not think that Sophokles was consciously writing a miracle play. Probably to him the scene where the Satyrs beat the ground with their summoning feet had lost all ritual remembrance. The Wonder-Child is lost in the Wonder-Worker. It is sheer comedy. Serious magical intent had given place to a rather senseless frolic; what was once a magical mystery has become mere mime ${ }^{5}$. It is a common human history.

Be my contention of the ritual origin of the scene of

[^101]
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the mystery that underlies the mime true or not, it will at least serve as an example of the light that prehistoric enquiry can throw even on literature. As such it is offered as a tribute to the scholar who perhaps more than any other Hellenist has taught us the value of Realien ${ }^{1}$.

Jane Ellen Harrison.


#### Abstract

${ }^{1}$ Since the above was written I have come upon an account of a dramatic rite among the Pueblo Indians of Arizona which presents, I think, an instructive parallel to the Satyr dance in the Ichneutae. Each village has a Kiva, a circular underground sanctuary, round which the interest of the ceremony centres. The entrance to the Kiva is by a ladder and over the hole is a plank. The hole in the middle of the plank is the opening to the lower world, 'and the dancers stamp upon it to inform the spirits of their ancestors that a ceremony is in progress.' That the ceremony has fertility for its aim is shown by the fact that the runners in the snake race deposit melon-vines, corn, and other products which they have carried from the fields. See Walter Haigh, The Moki Snake Dance, 1898, p. 6, with illustrations of the dance and of the priest rising up from the Kiva. By the kindness of Miss Hope Allen I have before me coloured photographs showing the circular Kivas in the Hopi Pueblo of Shipaulovi, with ladders emerging, also the sacred altars inside the Kivas. See also for particulars of the dance Globus, 87, p. 348 . Its main gist seems to be to induce thunder, lightning and rain.


## THE 'AПAPXAI AND THE ELEUSINIAN MYSTERIES

The object of this paper is to take up a hint dropped by Dr Warde Fowler at the end of his illuminating article, Mundus Patet ${ }^{1}$. He suggests that his conclusions may throw light on some doubtful points in connection with the festivals of Demeter and Persephone. After reading through various accounts of the Eleusinia with the mundus and its new significance in mind, it seems to me that certain difficulties can in fact be cleared up, if we may suppose the same simple facts to lie behind the Eleusinian ritual. I shall begin with the $\dot{\alpha} \pi \alpha \rho \chi \alpha \dot{i}$, or offerings of 'first-fruits,' sent by the Greek States to Eleusis. It will be convenient first to resume Dr Warde Fowler's main contentions.

At the founding of Rome, $\dot{\alpha} \pi \alpha \rho \chi \alpha i ́ i o f ~ a l l ~ k i n d s ~ w e r e ~$ thrown into the mundus. The mundus was opened three times a year: on August 24, October 5, and November 8. Dr Warde Fowler convincingly shows that these dates can be explained, if we suppose that the mundus was 'the place in which was stored, not, or not only, the grain of the last harvest which would be needed for food, and for which the storehouse (penus) would need to be frequently opened in the old farmhouse, but the place of safety in which the seed-corn was stored.' The opening on August 24 will then mark the time at which 'the seedcorn for the autumn sowing was separated from the rest

[^102]of the grain, and deposited in an underground storingplace.' The two other dates, October 5 and November 8, mark the opening of the store to take out the seed-corn for the autumn sowing. Moreover, there are 'signs that the last sheaf of the harvest, which in innumerable instances is treated with reverence and made into human form, may represent the precious seed-corn set aside at the time of the threshing' ; and this last sheaf 'is sometimes deposited in a special place, and even in an underground cavity or cellar, like the first-fruits which Plutarch tells us were deposited in the Roman mundus.'

It may well be that here, as in other cases, Roman custom preserves the elementary facts which in Greek religion have become obscured by the overgrowth of mythical personification. From Dr Warde Fowler's combination it follows that the $\alpha \pi \alpha \rho \chi \alpha \dot{\ell}$ of the Roman mundus represent both the corn-maiden or corn-mother of the harvest and also the seed-corn used in autumn, or at least a specially sacred portion of seed-corn which might be mixed with the grain at the autumn sowing. The important point is this identity of the seed-corn with the corn-maiden, who, if $\mathrm{Dr} \mathrm{Frazer}^{1}$ is right, is, at Eleusis and elsewhere, identical with Kore. This gives to the notion of $\alpha \pi \alpha \rho \chi \alpha^{i}$ a double significance. They have commonly been regarded, both by writers of the classical age and by modern students, as merely thank-offerings for the harvest, and with this goes the view of the Eleusinia as a 'belated harvest-festival.' But Dr Frazer points out ${ }^{2}$ that the date of the festival, falling as it does, not after the harvest, but just before the sowing, suggests 'a calculation on the part of the practical farmer that the best time to propitiate the Goddess was not after harvest, when he had got all that was to be got out of her, but immediately before ploughing and sowing, when he had everything to hope from her goodwill, and everything to fear from her displeasure.... On this theory, the Greek

[^103]offering of first-fruits was prompted not so much by gratitude for past favours, as by a shrewd eye to favours to come... ${ }^{1}$.' I believe that this conjecture hits the mark, and that Müller was right when he interpreted a statement by Plutarch 'that the ancients used to sow at an earlier date, as we may see from the Eleusinian mysteries,' as evidence that the Eleusinia were originally a sowing festival ${ }^{2}$. The view is supported, of course, by the parallel case of the Thesmophoria and by the fact that the 'Festival before Ploughing,' the Proerosia, fell either just before or just after the mysteries. It will become clearer still, if we fix our attention on the $\dot{\alpha} \pi \alpha \rho \chi a i$ and their new meaning.

The date at which the $\dot{a} \pi a \rho \chi a i$ were sent is not known; but it stands to reason that it must have been after the harvest in summer (May-June). We hear nothing of the use of them for ritual purposes till the Eleusinia ${ }^{3}$. What was done with them in the three months' interval?

An inscription dated by scholars in the third quarter of the fifth century b.c. orders the construction of three subterranean granaries in which these $\dot{\alpha} \pi a \rho \chi \alpha i$ were to be stored. But the custom of sending the $\dot{a} \pi a \rho \chi a i$ is described in this inscription as 'ancestral'; and, though the revival of it may have necessitated the building of new storingplaces, the language seems to imply that the method of storage was not new, but traditional ( $\kappa \alpha \tau \dot{\alpha} \tau \grave{\alpha} \pi \dot{\alpha} \tau \rho \iota \alpha^{4}$ ).

[^104]Probably the $\dot{\alpha} \pi \alpha \rho \chi \alpha{ }^{i}$ had always been kept in an underground treasury ( $\theta_{\eta \sigma \alpha u \rho o ́ s \text { ) or megaron, either like the }}$ Roman mundus, or else a natural cave-in either case an 'underground dwelling ${ }^{1}$.'

The safe disposal of the seed-corn must, as Dr Warde Fowler remarks, have been in early days a matter of vital importance, only diminished in settled times, when the grain on which the next crop depends is secure from the depredations of enemies. From their storehouse the $\alpha^{\alpha} \pi \alpha \rho \chi \alpha i$ must have been brought up again when they were used at the autumn festival. We may suppose, in fact, a procedure with which may be compared the ritual of the Thesmophoria, when live pigs and other objects were thrown into the 'chasms' ( $\chi \dot{\alpha} \mu \mu \tau \alpha)$ or megara of Demeter and Kore, and certain women brought up their remains to be mixed with the grain for sowing, so as to secure a fertile crop². So important a custom might be expected to leave its mark in the myth of Kore.

Now, Clement tells us that the aitia of the Thesmophorian ritual was 'the flower-gathering of Pherephatta, the Kalathos, her rape by Aidoneus, the rending of the earth, and the pigs of Eubouleus that were swallowed up with the Goddesses,' and that the Thesmophoria, Skirophoria, and Arretophoria celebrated the Rape of Pherephatta. It is, I believe, generally assumed that this Rape

[^105]symbolises the disappearance of the corn when it is sown in the ground, and that the ascent of Persephone means the sprouting up of the new crop in spring. Certainly the myth was sometimes so interpreted in antiquity. But I would suggest that this is not the only possible interpretation. Some of the difficulties connected with Eleusinian ritual may become clear, if we reckon also with another Descent and Rising of Kore-her descent, namely, into the underground treasury and dwelling of Pluton, when the $\dot{\alpha} \pi \alpha \rho \chi \alpha i$ were stored after harvest, and her ascent, when they were taken out again at seed-time. The legend persistently describes the maiden as carried off into a chasm in the earth, or a cave ${ }^{1}$. No one ever sowed corn in a cave, but it is a very suitable place for storing it.

The Descent and Ascent in question seem to be marked by the two Sicilian festivals recorded by Diodorus (v. 4). The Sicilians celebrated the two Goddesses at separate dates. 'They held the $\kappa a \tau a \gamma \omega \gamma \eta$ ' of Kore at about the time when the fruit of the corn comes to perfect ripeness.... But they chose as the moment for the sacrifice to Demeter, the time of the beginning of sowing.' At this latter festival there was an aioxpoдorica to celebrate the laughter of Demeter after her mourning for the rape of Kore. Dr Frazer ${ }^{2}$ translates $\tau \hat{\eta} s$ кópиs $\tau \dot{\eta} \nu \kappa \alpha \tau \alpha \gamma \omega \gamma \eta^{\prime} \nu$ 'the bringing home of the maiden,' and remarks that the words 'are explained with great probability by Professor M. P. Nilsson as referring to the bringing of the ripe corn to the barn or the threshing-fioor (Griech. Feste, Leipzig, 1906, pp. 356 sq.). This interpretation accords perfectly with a well-attested sense of $\kappa a \tau a \gamma \omega \gamma \eta^{\prime}$ and its cognate

[^106]verb кат $\dot{\alpha} \gamma \epsilon \omega$, and is preferable to the other possible interpretation, "the bringing down," which would refer to the descent of Persephone into the nether-world; for such a descent is hardly appropriate to a harvest festival.' If my suggestion is right, and the corn-maiden was stored in an underground chamber, the two interpretations are really the same: Kore is both 'brought home' and 'brought down,' if she is carried into the subterranean megaron of Pluton, the God of the rich store-chamber ${ }^{1}$.

Similarly at Hermione the XÓóva, which may have been the festival of the Descent of the Goddess into the under-world, was held in the summer ${ }^{2}$. From the storechamber she ascends again at seed-time, and it must surely be this ascent that, in the original version, put an end to Demeter's mourning, and corresponds to the autumn festival in Sicily, and to the ${ }_{\alpha}^{\alpha} v o \delta o s$ of the Thesmophoria. If we adopt the promising suggestion that the $\theta \in \sigma \mu \boldsymbol{o}^{i}$ carried at the Thesmophoria were the treasures 'laid
 ground store of Pluton, we may not only say with Dr

[^107]Warde Fowler that the Thesmophorian sacra may have been 'originally portions of seed-corn,' but identify them with the $\alpha \pi \alpha \rho \chi \alpha i$ and with Kore herself in her original form. We can thus meet Dr Farnell's objection ${ }^{1}$ that to apply the term ${ }^{\alpha} \nu \nu o \delta o s$ to Kore at the Thesmophoria ' is out of the question, for the eleventh of Pyanepsion would be of all times of the year unsuitable for her return to the upper world.' It is exactly the right time for her ascent from the subterranean granary. The case of Attis appears to be exactly parallel: 'the story of his sufferings, death and resurrection was interpreted as the ripe grain wounded by the reaper, buried in the granary, and coming to life again when it is sown in the ground ${ }^{2}$.'

If then the Rape of Kore at harvest-time means her descent into the underground store, this place can be regarded at once as the house and treasury of Pluton, the bride-chamber of Kore, and her tomb. When Pluton brings back the ravished bride in the Homeric Hymn, his chariot is described as rushing $\delta_{\iota} \epsilon \in \kappa \mu \notin \gamma \alpha ́ \rho \omega \nu$, and 'Gemoll rightly notes that the realm of Hades is thought of as a huge house.... Otherwise the entrance of horses into the $\mu$ '́ $\gamma \alpha \rho o \nu$ would be impossible ${ }^{3}$.' Its aspect as a $\theta_{\eta} \sigma \alpha u \rho o ́ s ~ r e c a l l s ~ t h e ~ \pi \epsilon ́ \tau \rho \omega \mu \alpha$ at Pheneos in Arcadia opened at the Greater Mysteries, when the priest of Demeter Kidaria, wearing the mask of the Goddess, smote the Underground Folk with rods-a ritual Summoning for purposes of fertility ${ }^{4}$. Another title of it may survive in the $\theta \alpha \lambda \alpha \mu^{\prime} \eta^{5}$, out of which sacra were

[^108]'taken and distributed to those who had carried the $\kappa \epsilon ́ \rho \nu o s, '$ itself a characteristic receptacle of $\dot{\alpha} \pi \alpha \rho \chi \alpha \dot{i}^{1}$. As a bride-chamber, was it not the underground place where the Hierophant and the priestess celebrated their sacred marriage ${ }^{2}$ ? Is it not from this chamber that the child Plutos is handed up to Hermes by the female figure rising out of the ground on the Kertsch pelike ${ }^{3}$ ? Finally, when we think of it as a tomb, we remember that when Curtius, after solemnly devoting himself to the under-world powers, leapt into his lacus, the multitude threw in dona ac fruges, like the $\dot{\alpha} \pi \alpha \rho \chi \alpha i$ thrown into the mundus, and those deposited with the entombed Vestal virgin ${ }^{4}$. We think also



 $\pi \alpha \sigma \tau \alpha^{\prime}{ }^{5}$. The suggestion throughout the Antigone is that the heroine becomes the bride of Pluton. Probably some Theban ritual of underground marriage lies behind. Antigone's tomb-cave has a $\sigma$ cómoo closed with a heap of stones, and apparently leading by a dromos to the 'furthest part of the tomb' ( $\left.\boldsymbol{\lambda o i}^{\prime} \sigma \theta_{\iota} \circ \nu \tau \dot{\prime} \mu \beta \epsilon \nu \mu a\right)$. The whole de-

Oòдos, Gothic dal, 'valley,' etc. : L'idée première doit avoir été 'courbure,' d'où 'convexité et 'concavité.' Cf. ò $\phi-\theta a \lambda \mu o ́ s, ~ P r e l l w i t z, ~ E t y m . ~ W o ̈ r t e r b . ~ s . v . ~ H e s y c h . ~ s . v ., ~$



 Kernophoria as 'nothing but a late and elaborate form of the offering of first-fruits,' see J. E. Harrison, Prolegomena, 158 ff .


${ }^{3}$ Figured and discussed by Farnell, ibid. p. 253.
${ }^{4}$ Livy, vir. 6, donaque ac fruges super eum a multitudine uirorum ac mulierum congestas. For the Lacus Curtius, see below, p. 161, n. 6. For the Vestal, Miss Harrison





 Bernhardy's ed. of Suidas.
$\therefore$ Soph. Antig. 891, 1204.
scription，as Jebb notes（v．1217），suggests the＇Treasury of Atreus＇type．The chorus compare it to the $\tau v \mu \beta \beta_{i} \rho \eta$ s
 Pherekydes describes as a brazen chamber（ $\theta \dot{\alpha} \lambda \alpha \mu о \nu . .$. $\chi \alpha \lambda \kappa о \ddot{\nu}$ ）made underground，in the courtyard（ $\alpha \dot{u} \lambda \eta_{n}$ ）of the house．Pausanias saw at Argos this＇като́ $\boldsymbol{\gamma} \epsilon \boldsymbol{\nu}$ оіко－ סó $\mu \eta \mu a$ ，with the Golden Thalamos over it ${ }^{\text {I }}$ ．＇

Again，an underground structure of this type，called $\sigma$ ıoós in the Eleusinian inscription quoted above（p．155）， could also be called $\phi \rho \in \dot{a} \rho$ ，the equivalent of the Latin puteus ${ }^{2}$ ．We hear of two，if not three，$\phi \rho \rho^{\prime} \alpha \tau \alpha$ at or near Eleusis：the Пap $\theta^{\prime} v{ }^{\prime} \nu \quad$ и $\phi \rho \in ́ a \rho$ ，where the Goddess，in the form of an old woman，sat grieving ${ }^{3}$ ；the＇A ${ }^{\prime} \theta_{\imath o \nu} \phi \rho \in ́ a \rho$ ， perhaps identical with it，on the road from Eleusis to Megara ${ }^{4}$ ；and the Kallichoron，close to the precinct，where the Eleusinian women first danced and sang to the goddess ${ }^{5}$ ． I would suggest that one of these $\phi \rho^{\prime} \alpha \tau \alpha$ was closed at its mouth by the $\dot{\alpha} \gamma \dot{\epsilon} \lambda \alpha \sigma \tau o s \pi \dot{\epsilon} \tau \rho \alpha$ ，the double of the $\dot{\alpha} \nu \alpha-$ $\kappa \lambda \eta^{\prime} \theta_{\rho} \alpha$ at Megara，which，as its name implies，was the place where Kore was＇called up．＇The famous well Burrhina at Cos is of the same type ${ }^{6}$ ．It is curious that

[^109]this well was made by Chalkon, son of Eurypylos (son of Poseidon) and Klytia, who received Demeter when she was searching for Kore, and who were the ancestors of the men who celebrate the Thalusia at Demeter's thresh-ing-floor in Theocritus' Seventh Idyll¹. I conjecture that the $\phi \rho \in ́ a \rho$ at Eleusis where the Goddess sat on the $\dot{\alpha} \gamma^{\prime} \lambda \alpha a \sigma \tau o s ~ \pi \epsilon ́ \epsilon \rho \alpha$ was the original scene of the summoning up of Kore.

For Kore rises again. When we are told that the final revelation to the Eleusinian epoptae was a $\sigma \tau \alpha \dot{\chi} u s \tau \in \theta \epsilon \rho$ $\sigma \mu e ́ v o s$, and that, in the Attis-Sabazian mysteries, Attis himself is called a $\sigma \tau \alpha^{\prime} \chi \nu s \dot{\alpha} \mu \eta \tau o^{\prime}{ }^{2}$, is it possible that we may see in this $\sigma \tau \alpha \dot{\alpha} \chi$ us the epiphany of Kore herself as represented by the $\dot{\alpha} \pi a \rho \chi a i ́ ? ~ V a r r o ~ c a l l s ~ h e r ~ t h e ~ s e m i n u m ~$ fecunditas, and Cicero speaks of Proserpine as the frugum




 in lacum (Vulg.). The Hebrew בור so translated means 'cistern,' 'pit,' 'a dry cistern used as a prison,' 'grave' (Gesenius, Handwörterb. über das alte Test.)., Dion. H., Ant.
 its significance as a mundus, see Wissowa, Relig. u. Kult. d. Römer², 235. Cf. also the puteal ( $\phi \rho \in \dot{\epsilon} a \rho$ ) in the comitium, where the rasor and whetstone of Attus Navius were buried кaтà $\gamma \hat{\eta} \mathrm{g} \dot{\nu} \pi \grave{o} \beta \omega \mu \hat{\varphi}$ тוvı (Dion. H. 1H. 71). The legend of Curtius, whose self-devotion stopped a flood, and who was honoured with dona ac fruges thrown into his $\lambda$ д́ккоs, may throw light on the custom at Athens of throwing wheatmeal kneaded with honey into the cleft in the ground at the precinct of Ge Olympia where the water ran away after Deukalion's flood, Paus. I. 18.7. In Genesis xxxvii. Joseph is let down into a dry בור (cisterna, Vulg.) and his coat smeared with the blood of a kid is sent to his father, who laments and thinks his son is rent in pieces. Does this legend reflect a rite of tearing a Kid-God in pieces, and a burial followed by a resurrection, which might be paralleled by the sacrifice of the Hosioi at Delphi at the grave where the入eìqava toù $\Delta$ ovírov were stored (Plut. Is. et Os. 365 A )?



 $\mathrm{X} a \lambda \kappa \dot{\omega} \delta \omega \nu$, see Pauly-Wiss. s.v. The $\beta$ ápat $\rho o \nu$ at Athens is called by the Scholiast on

 The Goddess was angry and sent an dккьртia. Instructed by an oracle, the Athenians


${ }^{2}$ Farnell, Cults, III. 183 ; Frazer, Allonis, 1906, P. 175.
semen, when she is carried off by Dis, hidden away, and sought by her mother ${ }^{1}$.

On this view, I should regard the depositing of the $\dot{a} \pi a \rho \chi a i$ in the underground store as originally intended to put these specimens of grain that was to be used for seed into fertilising contact with the sacred store, in which the life of the corn might be supposed to have a continuous existence ${ }^{2}$. When this is turned into the language of mythical personification, Kore is carried off underground to become the wife of Pluton. She re-emerges as the potential mother of the new crop. That may be the reason why in Sicily she is a maiden at the time of her Bringing Down, but the festival before sowing is in honour of the mother, Demeter. And so Photius speaks of the Ascent of Demeter, and Clement compromises by representing both goddesses as swallowed in the chasm ${ }^{3}$. In the Attic festivals the two Ascents of Kore are represented, in autumn by the Eleusinia, instituted after the first return of Kore ${ }^{4}$, and in spring by the Lesser Mysteries of Agrae. The Eleusinian rites mark the most critical moment in the ки́клоs $\gamma \in \nu \dot{\epsilon} \sigma \epsilon \omega s$, when the seed, which was the fruit of the last harvest, comes forth from its underground store into

[^110]I I - 2
human hands, and is about to be committed by them again to the keeping of the earth at the sowing. Whatever magical processes are to be performed over it should be performed then, though they may be reinforced by further rites in spring, to secure the springing up of the new crop. This may explain why the autumn festival overshadows the Lesser Mysteries of the spring, which, on the ordinary view that the Rape of Persephone symbolises the sown seed lying in the earth, ought to have been the more important.

What, finally, was done with the ${ }^{\pi} \pi \alpha \rho \chi a i$ when they were taken out again? The fifth century inscription at Eleusis orders that the finest of the $\dot{\alpha} \pi \alpha \rho \chi \alpha i$ shall be offered in sacrifice, but that the rest of the grain shall be sold. For what purpose? Surely not to be eaten, but to be mixed with the grain of the sowing, like the sacra of the Thesmophoria. There is a redistribution of the ${ }^{\prime} \pi a \rho \chi a i$, which, I believe, is reflected in the myth of Triptolemos, charged by Demeter with the dispersal of the seed-corn to all the civilised world. This myth, and the final act of the mystic drama to which it corresponds, must have some basis in actual fact. It is not true that agriculture was discovered at Eleusis; and the myth does not reflect the custom of which it is the alleged aitoo, the sending of $\dot{\alpha} \pi a \rho \chi a i$ to Eleusis. I do not see what it can stand for, if not the redistribution of portions of seed-corn sanctified by the potency of the sacred store, at the 'Metropolis of the Crops,' in which they were allowed to rest from harvest to sowing time ${ }^{1}$. It is possible that the $i_{\epsilon \rho \dot{\alpha}} \delta \rho \alpha^{\prime} \gamma \mu \tau \tau \alpha^{2}$

[^111]sent by the Hyperboreans to Delos were originally sent for the same purpose. Dr Frazer has collected cases of similar customs, of which the following is an example. In Sweden and Denmark the last sheaf of the harvest is made into the Yule Boar. 'Often it is kept till the sowing time in spring, when part of it is mixed with the seed-corn and part given to the ploughmen and plough-horses or plough-oxen to eat, in the expectation of a good harvest ${ }^{1}$.'

I conclude that we must recognise a double sense of the word $\dot{\alpha} \pi \alpha \rho \chi \alpha i$. It may denote offerings of first-fruits made after the harvest, with the intent of removing the taboo from the corn which is to be eaten. Such, for instance, was the $\theta^{\prime} \dot{\alpha} \gamma \gamma \eta \lambda o s$ or $\theta \alpha \lambda \dot{u} \sigma \iota o{ }^{2}$. These $\dot{\alpha} \pi \alpha \rho \chi \alpha i$ can be made into cakes and consumed. Not so the other $\dot{\alpha} \pi \alpha \rho \chi \alpha i$, which are starting-points ${ }^{3}$ not for the consumption of the crop, but for the sowing of the next crop. These must, of course, be kept in the form of grain, and probably still in the ear. They may be dedicated and treasured, but not eaten. The rites connected with both kinds of $\dot{\alpha} \pi \alpha \rho \chi a i$ may be combined in one festival, which may fall after harvest or before seed-time, or in the interval. The notion of first-fruit offerings tends to survive; the other sense of $\dot{\alpha} \pi \alpha \rho \chi \alpha i$ as seed-corn tends to disappear.

A final point which these conceptions may help to

[^112]clear up is the confusion about the sacred marriage at Eleusis ${ }^{1}$. We hear of a marriage of Zeus and Demeter, as well as of the more famous marriage of Kore and Pluton ${ }^{2}$. Now, the marriage of Zeus and Demeter, connected by Dr Frazer with the formula $\dot{v} \epsilon \kappa \dot{v} \epsilon$, must surely, as he says, be the marriage of the Sky or Rain God with the Corn or Earth Goddess. The ritual celebration of it must be designed, as the formula implies, to promote by sympathetic magic the actual fertilisation by the rains of heaven of the crop about to be sown. This natural fact is, of course, different from the marriage of Kore and Pluton in the underground store; and when the significance of this was forgotten, it is easy to see how the Rape would come to be finally identified with the sowing of the seed in the ground, and the return of Kore with the sprouting of the crop; and so the two marriages would become hopelessly confused ${ }^{3}$.

May I hope that Professor Ridgeway, who has pointed out some of the difficulties in connection with the sacred marriage, will look kindly on the solution of them here offered ?

F. M. Cornford.

[^113]
## A RE-CUT GEM FROM MELOS

Among the numerous examples of the use of prehistoric objects as amulets one of the best known is that of Aegean engraved sealstones as charms, generally to secure a flow of milk. Such stones have various names, all signifying milk-stone ; in Crete they are called $\gamma^{\alpha \lambda}{ }^{\prime} \pi \epsilon \epsilon \tau \rho \in s$, in Melos and elsewhere $\gamma \alpha \lambda o \hat{u} \sigma \sigma \epsilon s$, whilst yet a third form is $\gamma \alpha \lambda a \tau o ́ \pi \epsilon \tau \rho \alpha$. The rarity and curious appearance of these stones is probably the general reason for the belief in their magic power ; the white colour of many of them determines their specific use as milk charms, although it must be admitted that many stones of other colours than white seem to have been used in the same way. Another use, especially of red or dark-coloured stones, is to check a flow of blood; others again, called in Melos at least $\beta a \sigma \tau \alpha \chi \tau \hat{\eta} \rho \epsilon s$, are credited with the power of saving women from miscarriage ${ }^{1}$. It should be noted that this use of seal-stones is only a local instance of the widely diffused use of remarkable stones as amulets; it is simply that where the prehistoric gems are found their superior interest makes them more regarded than any other kind of stone.

Another very favourite or rather universal charm of the modern Greek world is the cross with certain initials set in the four angles, the commonest being I X NI KA, standing for ' ${ }^{\prime} \eta \boldsymbol{\eta} \sigma$ oùs $\mathrm{X} \rho \iota \sigma \tau o{ }_{\mathrm{s}}$ NIKAı. This device appears

[^114]regularly on the stamps impressed on the loaves used in the church service ${ }^{1}$, such small stamps being often hung as amulets round children's necks, and is very frequently painted or carved on the lintel of the door of a house. Other initials are sometimes, but much less commonly, used. I have noted a fine example painted on the wall at the entrance to the chapel of St George in the Monastery of St Paul on Mount Athos, with the following letters:-

where those below the horizontal line are to be read : $\Phi$ ws

 $\Delta a^{\prime} \mu o v e s ~ \Phi P i \tau \tau o u \sigma{ }^{3}$. To these may be added X X XX
 fore that the cross with four initials of some pious sentence or formula is just as established as an amulet in the Greek world as the curious stone or as the prehistoric gem so often used for this purpose in Crete and the islands.

[^115]A stone at present in a private collection, of which a drawing is given on the next page, combines the virtues of these two classes of charms. It is one of those lentoid gems characteristic of Melos, which, although the shape is purely Mycenean, must be dated to the seventh or sixth century b.c. on the evidence of the classical motives used on them, and because there is a strong probability, if not more, that many were found in the archaic cemetery near the Chora of Melos, which yielded the wellknown Melian vases. It has also been pointed out that the designs engraved on these stones sometimes bear a remarkable resemblance to the patterns found on these vases. They are in fact one of the most striking cases of the survival of a prehistoric type into the Greek period ${ }^{1}$. The gem in question originally differed in no way from the generality of its class. The material is the pale applegreen steatite common in Melian stones ; on one side it is plain, and on the other there was a common type of design, presenting, as far as can be at present made out, some sort of winged creature. The head and part of the wing appear on the upper half of the drawing, and the feet below on the left. That so little of the original design is at present visible seems to be due to intentional defacement : the slightly convex surface of the field has been roughly flattened, and all the central part of the design thus obliterated. On the new surface thus obtained and over the remains of the old device a modern hand has cut the cross and letter design described above. The cross is roughly but deeply cut, the lines forming two diameters on the field. The letters, which on the stone can be distinguished quite clearly from the remains of the original animal, are undecipherable; it is indeed quite likely that no definite letters were intended, but that mere vague marks were made to fill up the spaces where letters should be in a way that would satisfy an illiterate possessor. The stone has thus had added to whatever virtues a pre-

[^116]
## R. M. DAWKINS

historic gem may have been supposed to possess the fortifying powers of a Christian charm. It may in fact be called a reinforced amulet, and in this way finds its parallels in certain stone axes, on which have been cut Gnostic devices and inscriptions ${ }^{1}$. The axe itself, being supposed to be a thunderbolt-in modern Greek $\dot{\alpha} \sigma \tau \rho о \pi \epsilon \lambda \epsilon$ є́кı has both meanings-is an amulet against fire and lightning, and this, or possibly some other virtue, has been increased by the addition of the Gnostic device. The use of neolithic stone axes in modern Greece as amulets against fire is very comprehensive. I was told once by a man in Syme that one of the women of his family kept a stone axe among her yarn with the idea that it would protect the garments made from it from danger by fire.
R. M. Dawkins.

[^117]

Melian Gem. Scale I: 1.

## AN EARLY BLACK FIGURE VASE FROM RHITSONA ${ }^{1}$ IN BOEOTIA

The curious black figure vase that is here illustrated was found in a grave that I opened in 1908 when continuing the excavations that had been begun by Professor Burrows in the previous year. A catalogue of the complete contents of this grave was published in $1909^{2}$, but at that time this particular vase had not yet been completely mended; accordingly it received only three lines in the catalogue, and its adequate publication was held over.

A detailed description is rendered unnecessary by the illustrations ${ }^{3}$. The ground colour of the vase is a dull ferruginous buff. The decoration is all in black. Incisions are used freely, but there is no white or purple. The diameter across the mouth is 215 m .

The grave in which the vase was found is shown by its contents ${ }^{4}$ to belong to the middle of the sixth century, and the aryballoi point to its being one of the latest of

[^118]our mid sixth century graves. It is of course possible that a unique object like the vase here published may have been made some considerable time before it was buried.

The shape finds at Rhitsona its closest parallel in Grave i8, No. $101{ }^{1}$, which is here illustrated, but the body of the Grave i 8 vase is less hemispherical, the lid is flatter, and there are other slighter differences as may be seen from the illustration. Grave 18 contained a red figure vase in the style of Hermaeus ${ }^{2}$; the rest of its furniture is all of types that prevailed right at the end of the sixth century or the beginning of the fifth, and unlike the Grave 5 I vase, this vase from Grave 18 is thoroughly typical of the grave in which it was found, so that it can be dated definitely from its context ${ }^{3}$. About the beginning of the fifth century, i.e. roughly the period of our Grave 18 , we find a yet squatter development of the same shape ${ }^{4}$, which persisted till the end of the red figure period ${ }^{5}$.

As regards the place among archaic Greek fabrics to which the vase from Grave 5 I should be assigned, perhaps its least remote connexion is with a series of bowls derived mainly from Stais' excavations at Vourva ${ }^{6}$, not far from Marathon. The typical Vourva bowl is not unlike ours in shape, except that the body is squatter ${ }^{7}$.

[^119]Stylistically only the siren, the band of S pattern, and the absence of red and white are common to both. Our vase has no animal friezes with fill ornaments like those on the Vourva bowls. Its main decoration is on the lid. Human beings are depicted as well as a siren, a bird and a flower, and the whole composition has at least the appearance of representing some incident or incidents. The net pattern on the body of our vase cannot be paralleled from Vourva ${ }^{1}$. These great differences in style do not however do away with the possibility of a direct connexion between our vase and Vourva ware. A first step in the transition is possibly to be seen in Jahrbuch xviir. p. I 34, Fig. 7 : just below lip a bold meander (cp. position of our net pattern) ; only one animal frieze (just below meander) and that narrow and with mere dots for fill ornament; instead of usual second (lower) animal frieze a broad black band; usual rays springing from foot. It is worth noting that the frieze, thick band and rays of this Vourva bowl may be closely paralleled at Rhitsona on a black figure kylix ${ }^{2}$ from the very grave in which our vase was found. Still in the same grave another kylix was found (No. 234) just like the one already mentioned (No. 231) except that the animal frieze has been eliminated ${ }^{3}$.

These three vases are enough to suggest the sort of development that may possibly have connected our bowl with the Vourva series. They are of course no proof of any such connexion. Vases in small numbers may often guide us to the right question. Masses of material and excavators' reports are needed to establish the right answer. The cheerful confidence in a priori arguments based on style that once dominated the study of Greek pottery is now recognised to have been in its way as dangerous a

[^120]guide as was the idea of symmetry to the student of geography in the days of Herodotus. The shapes and decoration of vases among civilised peoples are always to some extent a matter of fashion, and fashions, like rivers and mountain ranges, often follow devious courses, that can only be determined by surveying them step by step from beginning to end. It will be enough therefore without attempting to classify this one unusual vase, simply to point out that it was buried in East Boeotia about the year 550 b.c., and that Vourva ware, in spite of its occurrence in the grave of the Marathon heroes ${ }^{1}$, seems to date mainly from about $650-550^{2}$ and has been found mainly in East Attica, the only homes that have been suggested for the style outside Attica being Euboea ${ }^{3}$ and, for certain careless and presumably late examples, Boeotia itself ${ }^{4}$.

It is worth noticing that Vourva shaped black figure bowls seem to have had a long continuous history in the districts just mentioned. A later series of bowls of this very distinctive shape discussed by Pagenstecher in the American 'Journal of Archaeology" is recognised by him as having Boeotian affinities. Two of the three known to Pagenstecher in 1909 are said to have come from Marathon. Since then a fine example has been found in Boeotia itself and is now in Thebes Museum. Between the Vourva and this later series we may place such vases as Scheurleer, Catalogus Oudheden 's Gravenhage, Pl. xxxvi. No. 388 , similar shape, coarsely executed frieze of centaurs and men, buiten langs den bovenrand $Z$ vormige lijnen. The Hague vase comes from Karditsa in Boeotia, cp. B.M., B. 85.
${ }^{1}$ Stais, Ath. Mitt. xvini. pp. 55 f. Pl. II, III.
${ }^{2}$ Nilsson, Jahrb. xviri. pp. 143-4.
${ }^{3}$ Buhlau, Nekrop. p. 116 ; Nilsson, Jabrb. xviit. pp. 139 f. For Eretrian rather than Chalcidian influence at Rhitsona at this period cp . the Naukratite vase from Gr. 50 (slightly earlier than Gr. 51), J. H. S. xxix. pp. 332 f.: also B.S. A. xiv. pp. 236-7.
${ }^{4}$ Thiersch, Tyrrenische Amphoren, pp. 146-7: cp. Graef, Vasensch. d. Akrop. pp. $51,52$.
${ }^{5}$ xil1. pp. 394-5 and Fig. 5, dated by P. ib. p. 397 late Iv. cent., but probably v., cp. Ure, Black Glaze Pottery p. 25, n. 9 (on A.J. A. xiri. p. 396, Fig. 6, which P. rightly groups with his Fig. 5).

These facts suggest the most interesting question raised by our vase. Does it throw any light on the little known pedigree of late Boeotian black figure ware? But before dealing with this question it will be better first to examine the subject of the painting on the lid.

The four figures that fill the main scene fall obviously into two pairs. The bearded ${ }^{1}$ siren faces one of the human figures. The other human figure is advancing on the bird. The tripod ${ }^{2}$ that is placed between the pair first mentioned at once suggests a competition. Cp., e.g., the tripods in the athletic competition, Thiersch, $\mathcal{T}_{\mathrm{yr}}$ rhenian Amphorae, PI. II, 2 and 4, IV ${ }^{3}$. The only record of a prize competition between sirens and a man ${ }^{4}$ occurs in one of the Greek $\dot{v} \pi \sigma 0 \dot{\epsilon} \boldsymbol{\sigma} \epsilon \epsilon$ to the Frogs of Aristophanes ${ }^{5}$. The writer of this vinó $\theta \in \sigma$ ss, comparing the contest between Euripides and Aeschylus with others in which the competitors were equally ill matched, mentions the struggle between Marsyas and Apollo and that between 'mad Thamyris' and the Sirens. We are not told what the prize was in the latter case; but whatever it was, a tripod would be a very natural emblem of the struggle. A tripod is found even in one of the vase paintings of Marsyas and Apollo ${ }^{6}$, where the actual stake was something very different.

The other two figures are still more obviously opposed. The absence of the tripod may possibly indicate that the struggle in this case is no prize competition but real earnest. There are several struggles between birds and human beings that our vase painter might have had in mind. The battle of the cranes and pygmies for instance appears on the François vase. Possibly our picture is a

[^121]reminiscence of the same struggle. The fact that the bird has more resemblance to a goose or swan than to a crane does not preclude this possibility ${ }^{1}$. On a black figure vase at Berlin a pygmy is seen fighting a crane that looks like a big swan². Nor does the literary tradition always represent the pygmies' enemies as cranes. According to Strabo ${ }^{3}$ and Athenaeus ${ }^{4}$ the pygmies fought also against $\pi \epsilon^{\prime} \rho \delta \delta_{i \kappa \epsilon s} \chi \eta \nu 0 \mu \epsilon \gamma^{\prime} \theta \epsilon \epsilon s$. This is enough to establish the possibility of our bird being one of the pygmies' enemies. Unfortunately it does nothing more, and the man leaves us as uncertain as does the bird: he is undersized as compared with the normal human being, but distinctly overgrown for a pygmy ${ }^{5}$. The uncertainty is increased by the possibility of alternative interpretations, e.g. a satyric Herakles engaged with one of the birds of Stymphalus ${ }^{6}$.

One detail should be noticed that does not obviously fit into the explanation just offered. It is the wavy line that runs from neck to neck of the two human figures. Conceivably this line may represent a lassoo which the man facing the goose intends to use against it, but has got entangled in his companion's hair ${ }^{7}$. Nooses are not infrequently shown on black figure vases, e.g. British Museum B. 488. On a late red figure vase, Panofka, Collection Pourtales, Pl. xvir., a winged Eros is seen bending forward to lassoo a goose (?). But in all these cases the

[^122]noose is more or less obviously such. A much closer parallel to this detail is seen in Bibliotheque Nationale, Cata$\log$ ue, Fig. 10, No. 185, where two averted naked human figures grovelling on all fours ${ }^{1}$ have their necks joined by a loosely hanging cord ${ }^{2}$. No explanation of the cord is offered in the catalogue. The phalli that are scattered about the picture suggest some obscene performance. In any case the cord on the Rhitsona vase may be regarded as merely a piece of burlesque by-play. That the treatment of our picture borders on the burlesque can scarcely be disputed, however great may be the uncertainty as to its interpretation ${ }^{3}$.

This brings us to the question of a possible connexion between our vase and the burlesque black figure vases from the Theban Kabirion.

The Kabiric black figure pottery resembles our vase in several of its main features, notably in a certain dulness both of the ground colour and of the black, in the general absence of subsidiary colours, in the coarseness of the incised lines, and more particularly in the burlesque tendency of the painted decoration. On quite a remarkable number of the Kabiric vases, considering how few in all are known, there are grotesque representations of encounters between human beings and birds ${ }^{4}$. These Kabiric vases with human figures are ascribed by Winnefeld ${ }^{5}$

[^123]to the fourth century, and put later than those with purely decorative painting. The published evidence is not decisive. The careless human figures of some of the Rhitsona black figure ware of about 500 b.c. point to the possibility of a somewhat earlier date for some at least of the Kabirion vases.

In any case there is a gap both in date and style between our vase and those that have been quoted from the Kabirion. But the probability of there having been an unbroken tradition from the sixth century onwards is much increased by a vase at Athens published and illustrated in Collignon and Couve ${ }^{1}$. This vase has many characteristics of early black figure ware ${ }^{2}$; but as already pointed out by Couve ${ }^{3}$, both subject and style ${ }^{4}$ anticipate the Kabirion. The painting is rather burlesque, and depicts a draped bearded figure seizing by the throat a long-legged bird of about its own height.

The shape too is characteristic of Boeotia. It is a 'sorte de coupe profonde sans anses.' Variations of it are met with in late Boeotian black figure ${ }^{5}$. Few parallels can be quoted from elsewhere ${ }^{6}$. The vase was found at Thebes ${ }^{7}$. Whether or no it is itself Boeotian ${ }^{8}$, it is highly probable that it should be placed in the direct line of ancestry of the Kabiric black figure ware.
[My explanation of the painting on Pl. I does not account for the large flower between the two men except as an ornament separating the two scenes. Mr A. B. Cook

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RHITSONA: GRAVE 51 NO. $50(1: 2)$
$=$

points out that the figures immediately to right and left of the flower are animalistic in appearance and heraldically grouped. He suggests that we may perhaps have here a reminiscence of the pair of animals grouped heraldically on either side of a tree or pillar: see Evans, Mycenean Tree and Pillar Cult, $\mathcal{F} . H . S$. xxi. He compares for the cord that joins them $\mathcal{F} . H$. S. xxi. p. 158 Fig. 36 , p. I 59 Fig. 39. The suggestion gives point to the flower, but the reminiscence, if there is one, is faint and formal. Heraldic animals completely averted do indeed occur, e.g. ib. p. 162 Fig. $42 a, b$, but (i) our tulip-like blossom is neither a foliated pillar nor a tree. (2) the cord in F. H. S. xxi. pp. 158, 159 Figs. 36, 39 connects the animals with the central tree or pillar. Cp. Evans, ib. p. I 59. (3) Mr Cook's parallels are very remote in time; whereas the Bibliothéque Nationale vase quoted above, p. I77, is, like ours, black figure. (4) if an interpretation is sought from this possible reminiscence, the other figures of the picture are left unaccounted for.]
P. N. Ure.

## THE AUTHENTICITY AND DATE OF LUCIAN DE SALTATIONE

The authenticity of the Lucianic dialogue $\pi \epsilon \rho i$ ${ }_{0} \rho \chi \chi \dot{\eta} \sigma \epsilon \omega \mathrm{~s}$ has been much disputed and was denied by Rudolf Helm in 1906 in a special appendix to his Lucian und Menipp. The most elaborate attacks have been based chiefly on points of language, with which I cannot here deal at length. My main purpose is to call attention to certain positive grounds for believing that the dialogue is in fact by Lucian, and that he wrote it at Antioch between 162 and 165 A.D.

The form of the dialogue is simple. Two speakers, Lycinus and Craton, the second a philosopher, discuss the merits of dancing. When the dialogue opens, Craton has just delivered a violent attack upon the art and its admirers. Lycinus extorts the admission that he has never seen a performance, and persuades him to listen to a long panegyric of dancing in general, and of the pantomime in particular, a panegyric which fills by far the greater part of the work. At the end Craton declares himself a convert, and begs Lycinus to book him a seat as soon as possible.

The authenticity of the De Saltatione was denied by Bekker: but the first who tried to shew detailed grounds for its rejection was Schulze ${ }^{1}$. He dealt chiefly with matters of language, and his other criticisms are of little importance. He admits that the style is Lucianic, but calls attention to Lucian's habitual silence about dancing. His chief argument is this: all exaggerated and hyperbolical remarks in the dialogue must be meant seriously;

[^125]but they are in fact absurd: therefore the dialogue is not by Lucian, who would have felt their absurdity. He concludes that the author was a rhetorician of the Asiatic school, perhaps a pupil of Lucian's.

Bieler ${ }^{1}$, the next hostile critic, also concerned himself largely with details of language: but his pamphlet contains some more general animadversions. He starts by asserting that in the manuscript H. Vindobon. Philos. Philol. i I 4, there is a note suggesting that the De Saltatione is really by Libanius. But this assertion is a mere blunder, due ${ }^{2}$ to the inclusion in this MS. of Lucian, as in several others, of Libanius' speech $\pi \rho o ̀ s ~ ' A \rho \iota \sigma \tau \epsilon i ́ \delta \eta \nu$ $\dot{v} \pi \epsilon \rho \tau \bar{\iota} \nu \dot{\nu} \rho \chi \eta \sigma \tau \bar{\omega} \nu$. Bieler's literary criticisms are contemptible. As Schmid remarked, it is enough to observe that he tries to show that the dialogue cannot be Lucian's, because it does not obey the rules for historical composition laid down in the $\pi \hat{\omega} s \delta \epsilon \hat{\imath} i \sigma \tau o \rho i \alpha \nu \quad \sigma v \gamma \gamma \rho \alpha \not \phi \epsilon \iota \nu$. A typical remark is that all references to Homer ought to be consecutive, whereas in fact they are scattered. He has no definite theory of the date or authorship of the dialogue, but thinks that it may be later than Libanius.

Except for a review ${ }^{3}$ of Bieler by Schulze, the only remarks of importance, between the date of Bieler's pamphlet and that of Helm's Lucian und Menipp, were made by Dr Wilhelm Schmid ${ }^{4}$. He recognised the weakness of the work of Schulze and Bieler, and accepted the De Saltatione as authentic.

Helm ${ }^{5}$ added little to previous criticism. He considered the linguistic arguments of Schulze and Bieler important, though not conclusive. But his main reason for rejecting the dialogue was this. In the second chapter Craton says to Lycinus (who certainly represents Lucian)

[^126]
 Lucian, says Helm, was never a Stoic, and could therefore not have applied such language to Lycinus. It is clear, however, from the conjunction of the founders of three distinct schools, that these names are chosen by Craton merely as those of typical austere philosophers. At least four ${ }^{1}$ almost exact and five more very close parallels for this collocation of names occur in genuine works of Lucian.

That the conversational parts of the dialogue are typically Lucianic in matter and in style can scarcely be denied, and those who reject it are obliged to recognize therein the hand of a very skilful forger. The style of the panegyric is equally characteristic : especially noteworthy are the wealth of literary allusion and quotation, and the love of historical anecdote. Apart, therefore, from linguistic details, the attacks have been chiefly concerned with general criticisms of the matter of the panegyric. Before passing to this wider question, I must deal very briefly with the linguistic points. Both Schulze and Bieler make many blunders, but, apart from these, their work is vitiated by certain unexpressed and quite false assumptions about the nature of Lucian's Greek.

The first of these assumptions is that Lucian always writes pure Attic prose: the second, that the presence in any work ascribed to him of a number of words not used by him elsewhere proves this work to be spurious. Both assumptions are easily refuted by reference to Jacobitz' Index, and to the statistics collected by Chabert ${ }^{2}$ and Schmid ${ }^{3}$. The removal of these fallacies destroys the force of both critics' statistics, which I have been at considerable pains to examine point by point. Schmid's contemptuous dismissal of both was entirely justified, and I will waste no further time on them.

[^127]A feeling that Lucian could not have praised pantomimic dancing led Richard ${ }^{1}$ in 1886 to adopt and exaggerate Grysar's suggestion that the panegyric was not wholly serious. On the strength of certain ironical phrases he concluded that the dialogue was partly a satire on contemporary panegyrists, but mainly an attack on philosophers, who professed to decry such performances, but jumped at any excuse for seeing them. This view is no less exaggerated than Helm's ${ }^{2}$, who concludes from the resemblances between the De Saltatione and Libanius' dreary speech $\dot{v} \pi \dot{\epsilon} \rho \tau \hat{\omega} \nu \dot{\rho} \rho \chi \eta \sigma \tau \hat{\omega} \nu$ that 'these correspondences suffice to show that the idea that Lucian's work is any way satirical is entirely built on sand.' The most reasonable view is that held by Maurice Croiset ${ }^{3}$ and by Schmid ${ }^{4}$ that the dialogue is a jeu desprit, half serious, half ironical. Schmid further threw out the suggestion that it was 'perhaps written for the Emperor Verus, who was a great lover of the pantomime.'

It is generally admitted that Lucian wrote the Imagines and the Apologia pro Imaginibus to flatter Lucius Verus' mistress, Panthea of Smyrna, during that Emperor's residence at Antioch, between 162 and 165 A.D., at the time of the Parthian war. This was ably proved by Maurice Croiset ${ }^{5}$, and there is no need to repeat his arguments: the internal evidence, combined with the statements of Lucian's scholiast and of Julius Capitolinus, and with an interesting passage of Marcus Aurelius, make his main conclusions quite convincing. We have moreover Suidas' authority for the statement that Lucian was



In the Imagines, as later in the Pro Lapsu in Salutando, we find Lucian a consummate courtier. He extols Panthea

[^128]as the crown of physical and spiritual perfection, and speaks of Verus as 'the great king, good and gentle.' In his charming answer to Panthea's protest, the Apologia pro Imaginibus, he interweaves subtle mockery with the flattery, and yet leaves it exquisite flattery still. This is exactly the spirit of the De Saltatione: if this could be shewn to be its date, Lucian's passion for the pantomime need not surprise us. It is noteworthy that, on general grounds, Croiset assigned the De Saltatione almost exactly to this time, putting it immediately after Lucian's return from Antioch to Greece. The close resemblance in style between the $D e$ Saltatione and the Apologia pro Imaginibus is exceedingly striking.

Two facts, in this connection hitherto overlooked, suggest that the De Saltatione was in fact written during the same stay at Antioch, and with similar motives.

First, the De Saltatione contains a remarkable compliment to the people of Antioch, a compliment ${ }^{1}$ unique in Lucian, who had little love for his fellow-Syrians. Croiset, who does not connect the De Saltatione directly with Lucian's stay at Antioch, takes the compliment quite seriously, and writes ${ }^{2}$, on the strength of it, 'cette ville lui plaisait par sa beauté et par le caractère de ses habitants.' The passage ${ }^{3}$ runs as follows: $\dot{\epsilon} \theta \in \epsilon \lambda \omega$ youv $\sigma o \iota$
 єiтєєiv. oi $\gamma \dot{\alpha} \rho$ 'A $\nu \tau \iota o \chi \epsilon i ̂ s ~ \epsilon u ́ \phi \cup \epsilon \sigma \tau \alpha \dot{\tau} \eta$ тó入ıs каi ó $\rho \chi \eta \sigma \iota \nu$

 Lycinus then quotes a series of witticisms made by the audience at Antioch at the expense of ill-proportioned dancers. No other town is named in the dialogue, except as the seat of special myths or dances.

We know that Lucius Verus threw himself at this time into the theatrical amusements of Antioch. Julius Capitolinus ${ }^{4}$ states this, and adds that on his return to

[^129]Rome he brought home crowds of performers: 'Adduxerat secum et fidicinas et tibicines et histriones scurrasque mimarios et praestigiatores et omnia mancipiorum genera, quorum Syria et Alexandria pascitur uoluptate, prorsus ut uideretur bellum non Parthicum sed histrionicum confecisse.' Capitolinus says also ${ }^{1}$, 'Risui fuit omnibus Syris quorum multa ioca in theatro in eum dicta extant.' Lucian must have been tempted to quote them.

If we suppose that Lucian wrote the De Saltatione partly to flatter Antioch, and partly, like the Imagines, to flatter her imperial visitor, we at once get an explanation of the many allusions to Roman and Italian matters which have surprised the few critics, Helm in particular, who have noticed them.

The most remarkable are these: a complimentary reference ${ }^{2}$ to Roman dancing, and to the Salii in particular; the statement ${ }^{3}$ that dancing first reached perfection under Augustus; two anecdotes ${ }^{4}$ about Nero, never mentioned elsewhere except in the doubtful Nero; the mention ${ }^{5}$ of Italians in careful contrast to barbarians, and the praise of their invention of the word pantomime; the inclusion ${ }^{6}$ of the story of Dido and Aeneas in the list of myths, Lucian's only mention of either, save for two references ${ }^{7}$ to Aeneas as son of Aphrodite in the disputed De Astrologia. There are also several allusions ${ }^{8}$ to Italy and to Italian myths.

These points are significant, in view of the rarity and general unfriendliness of Lucian's references to Rome, apart from the two late and politic works Apologia pro Mercede Conductis and Pro Lapsu in Salutando. Where he speaks of her at any length, from the early Nigrinus to the mature De Mercede Conductis, it is usually with bitterness.

> D. S. Robertson.

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## AN ATTIC LEKYTHOS FROM SICILY

The vase that is here reproduced is not unknown. It was published in 1825 by James Christie in his Disquisitions upon the Painted Greek Vases ${ }^{1}$ and has been twice since reproduced ${ }^{2}$. It has, however, been lost sight of for many years and doubts have arisen as to its genuineness ${ }^{3}$. I found it a few months ago among the
 vases of the Hope Collection. The reproduction is from a new drawing and needs no apology, as the original publication is bad and misleading and the others, being derived from it, not less so.

The vase, which, according to Christie, comes from Sicily, is an archaic black-figured lecythos, 36 m . high, with a large, broad body and small neck and mouth. It has been broken into very many pieces and rather carelessly mended. Such restorations as there are have been indicated on the plate by blank spaces, bounded by a broken line. Mouth, base and foot are varnished black. The neck is plain. On the shoulder, above, are tongues; below, large, joined lotus-buds. Above the base are two

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black bands with a purple line painted over each. Much of the white paint on the design has been rubbed away.

The design covers three-quarters of the body of the vase and shows the very quaint subject of Poseidon, Heracles and Hermes engaged in fishing. Christie's description and commentary on the vase are humorous enough to justify partial quotation. He writes:-
'The triad of grisly figures consists of Hercules, distinguishable by the lion's skin and quiver, kneeling on a rock in the centre, Neptune angling, and Hermes seated to the right, reaching forward the caduceus. The anxiety and attention of Hercules are well expressed by his attitude and by the hand inverted, as if he were watching the expected bite. The sovereign of the waters, behind him, grasps a fish that he has just hooked, and Hermes, who could either consign to the deep or resuscitate with equal facility, by means of his caduceus, needs no better implement on the present occasion. Thus each pursues his sport with equal prospect of success. But who would expect from a subject so grotesquely detailed, that the painter had designed the triple power of the deity, drawing the principle of life from the primary abyss?'

The vase deserves a rather more serious description. Below is the sea, which is represented in black, the surface being wavy and bounded by a white line (now mostly rubbed away), to mark the foam. From the sea rise three rocks, having large white patches on them, probably sea-weed. From the middle rock rise plants of the usual b.-f. type, while from the side on the left grows a little white flower. On the left-hand rock sits Poseidon, facing right. He wears chiton and himation. Hair and beard are long. In his right hand he holds his trident, in his left a fish he has just spiked. The fish's mouth and the space between it and the trident are a restoration. One of the plants, which rise from the middle rock, intersects the spikes of the trident and causes some confusion of drawing, which the restoration round the fish's
head makes the more difficult. The line which joins the middle and lower spikes of the trident is really the plant, but the artist, not liking the effect, changed his mind, left this piece without berries and began the plant again from the upper spike. The restorer of the vase did not see this, but thought this line to be a fishing-line attached to the trident and accordingly restored the fish's mouth as hooked to it. This mistake was made in the original publication and repeated in all the others. The line below the middle barb of the trident seems to be a mere slip of the brush. On the middle rock squats Heracles towards the right. He is dressed in his lion's skin. On his shoulder he wears his quiver and at his side a sword. In his right hand he holds his bow, with which he is angling, the bow-string serving for line. On the right sits Hermes, facing Heracles. He wears petasos, chlamys, high boots, and in his right hand holds his kerykeion, which passes, notwithstanding, the left side of his body. His left hand is outstretched, and below it, about on a level with the calves of his legs, is a square object, which, from the action of his fingers, he seems to be holding up by means of a string, now invisible. The object is not plumb below his hand, for the reason that Heracles' bow-string occupies that place.

The vase would date from about 550 b.c. For delightful quaintness it can hardly be paralleled.

The methods, in which Poseidon and Heracles are fishing, are plain enough, but that of Hermes is a little difficult to make out. The ancients knew of four instruments of fishing, the line, the net, the weel and the trident. Of these, all except the third are quite unsuitable to Hermes, and even here the difficulty arises that the square object, which he seems to be letting down, is too small to be a weel and indeed of the wrong shape. Possibly a passage from Oppian may help to an explanation. In dealing with so conservative an art as fishing, so great a discrepancy of date between vase and author is

## AN ATTIC LEKYTHOS FROM SICILY 189

of little account. Speaking of fishing with weels, Oppian ${ }^{1}$ writes :-





Very probably Hermes is in the act of letting down or pulling up a weel from the sea, while the square object is the $\phi \in \lambda \lambda$ ós or cork, which was used as a float.

Very interesting is Poseidon's trident. It is made of a short, curved stick, lashed to a long, straight one, so that three spikes are formed. It is a fish-spear of a most rude and primitive type. Occurring, as it does, on so early a work of art and being among the first representations of Poseidon's trident that exist, it gives us valuable evidence as to the origin of that instrument.

The view held throughout antiquity was that Poseidon's trident was simply a fish-spear, as is here represented. It has been reaffirmed by Wieseler ${ }^{2}$ and is still held by such scholars as Gruppe, Bulle and Ridgeway. It has been recently combated by Walters ${ }^{3}$ and later still by Usener ${ }^{4}$ and Blinkenberg ${ }^{5}$. Walters holds that Poseidon's trident is derived from Zeus' lotus-sceptre, Poseidon being Zeus in his marine aspect. The process, he thinks, was helped by Poseidon's attribute, the tunny. He relies for his evidence on a number of votive pinakes ${ }^{6}$, found near Corinth, which show various tridents, many with heads of distinctly lotus form.

Usener ${ }^{7}$, on the other hand, thinks that the trident was in origin a thunder-weapon. He points out that the so-called trident-marks in the Erechtheum were left uncovered, just as was the custom with places which had been struck by lightning. Blinkenberg points out that

[^132]the thunder-weapon is represented in a trident-like form over a very wide area of country, including Babylonia and Asia Minor. It is so found on Hittite monuments. He thinks that the Homeric trident, which is used to stir up nature generally and has no hint of use as a fish-spear, is best explained as this Oriental thunder-weapon. He rejects Walters' theory as not explaining the Homeric use of the trident.

The present vase distinctly favours the old view, that the trident is nothing more in origin than a fish-spear. Though later in date than the majority of the pinakes, it is, unlike them, quite free from Oriental influences and is so simple and nä̈ve in style, that it takes us back to a much greater antiquity. That the trident here is descended from a lotus-sceptre is an impossibility, while the fact that it is more obviously a fish-spear and less like the Oriental thunder-weapon than the later and more usual form of Greek trident, makes Usener's derivation the more difficult; for, if he is right, we should expect the exact opposite.

Nor do the opponents of the old theory prove that the explanation of the trident as a fish-spear fails to explain its various uses. The lotus-forms of the tridents on the Corinth tablets are largely due to Oriental influences, while many of the forms would suit a fish-spear perfectly well. Nor is the Homeric use of the trident, as a weapon, incompatible with its use as a fish-spear, which would be widely used as a weapon by a population dwelling by the sea and engaged in fishing. Now if, as Professor Ridgeway maintains, Poseidon is a pre-Achaean god of a people dwelling mostly on the shores of the Aegean, is it not natural that when adopted by the Achaeans, who were landsmen, his attribute should lose something of its marine aspect and tend to be looked on more as a weapon? As to the marks in the Erechtheum, they may be of an even greater antiquity than the worship of Poseidon and have been connected with him later. Thought of originally as
lightning-marks, it would be very natural to explain them as dints of the trident, when Poseidon became associated with the spot. As far as shape goes, the trident resembles the fish-spear with equal, if not greater closeness than the Oriental thunder-weapon. If, then, the old explanation is subject to no fatal objection, but attested by some of the earliest works of art and believed throughout antiquity, we shall have great justification in accepting it.

The question arises, why just these three gods should be fishing. Poseidon, as sea god, is naturally there; Hermes was worshipped by fishermen and looked on as the inventor of certain methods of fishing ${ }^{1}$; Heracles has nothing to justify his presence, except that he was popular with the early Attic potter. Possibly there may be an explanation, that would apply to all three at once. Professor Ridgeway considers Poseidon, Hermes and Heracles as pre-Achaean in contradistinction to, say, Zeus and Apollo. They are also typical of the three most important occupations of a primitive coast-dwelling people, namely fishing, pasture and fighting. To an Attic potter, who could well inherit some of the traditions of the preAchaean race, it would be natural to associate these three gods together. If we were to accept this idea, it would agree well with what we have said before about the trident and we should have on the vase a representation of one of the earliest conceptions of Poseidon.

E. M. W. Tillyard.

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## SOME ROYAL SIGNETS

The royal signets of classical times cannot now be identified, as they in no case carried the owner's name, and in no recorded case even his portrait. The wellknown chapter in Pliny (xxxvir. 4) mentions that Augustus first used a signet with a sphinx, later with a head of Alexander.; Maecenas used the sign of a frog; and the succeeding Caesars of the twelve sealed with the head of Augustus engraved by Dioscourides.

The case is different when we turn to Egypt. There the personal name and titles were the regular subject for a signet. Here I shall describe five which have been purchased by me in Egypt, and only one of which has been published. Though they may not have been strictly the individual seals of kings, they were all apparently to be used in the king's name as giving the royal authority.

The first is Khufu's signet cylinder of the Great Pyramid 4700 b.c. It might seem a fanciful dream to have such a unique object; yet it was handed out of his pocket by a Pyramid Arab, and the condition of the basalt in which it is engraved unquestionably shows its antiquity. It reads 'Neter nefer, Lord of both banks of the Nile, KHUFU the great God, the Hawk triumphing over the Evil one, (of his) domain of the pyramid Akhet.' Akhet 'the glorious horizon,' or resting place of the sun, was the title of his pyramid, as compared to the western horizon of the setting sun. The initial words Neter nefer are usually taken as being a title of the king, 'the good, or gracious, God.' But as this is always a prefix to the


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other royal titles, and never mixed with them, it seems curiously parallel to the Coptic prefix to formulae II Hor"Te II $\boldsymbol{a r a \theta o c} ;$ which in turn can hardly be separated from the prefixes Bismillah, In nomine Deo, \&c. If so, we may regard it as equivalent to the English phrase ' By the grace of God,' king of such a land.

The second is the signet cylinder of a Babylonian king of Egypt, about 3000 в.c., cut in dark-green jasper. That it belongs to the Syro-Mesopotamian family is clear by its style of work, by the row of ibexes, the guilloche pattern, and the Mesopotamian figure with its spiral dress. Yet it shows a king wearing the Egyptian kilt and crown, with his name KHANDY in a cartouche, and with other Egyptian signs, while the secondary subject is an Egyptian holding a papyrus. The additional signs are, before the king ankh'the living one,' giving the ankh sign to the nearer subject as conferring life. The Egyptian servant has hon 'servant' before him. This is a precious monument of the time when Mesopotamians were pushing into Egypt and rising into supreme power there, while still retaining authority in Syria. Such were doubtless the forerunners of the Hyksos conquest of Egypt. The name is not Egyptian, and may well be Semitic, 'the consecrator.'

The third signet is of Akhenaten, I 370 b.c. It is of bronze, but more finely engraved than the gold rings. It reads 'The living one, the Solar hawk living in the two horizons (east and west), loving Truth.'

The fourth signet is a bronze ring which has been gilt. The head is obviously one of the Diadochi, and from the coinage it is identified as Ptolemy IV, Philopator. This was an official ring, probably for sealing with the king's authority.

The fifth signet is a massive gold ring, bearing the cartouche of Antoninus Pius. There can be no doubt that this is an official ring. From the jealousy of the Roman law about the use of gold rings, it is unlikely that such

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would be granted to obscure native officials, and this was therefore probably the ring of the eques who was Prefect of Egypt. Whether it was lost, or was buried with him and found in his tomb, we cannot say ; it appeared from the pocket of a Pyramid Arab this year.

All of these, except the Akhenaten ring, are entirely unique of their kind, and I do not know of any parallel to them elsewhere. They are now the property of University College, London.
W. M. Flinders Petrie.

THE ARITHMETICAL FIGURES USED BY GREEK WRITERS DURING THE CLASSICAL PERIOD.

I do not think sufficient weight has been given to the discovery of thirty years ago, that the Greeks used an easy and practical script for numbers, quite different from the lapidary script universal in the Parthenon accounts. The only difficulty seems to be why the cumbrous system in these inscriptions lasted so long. It is not necessary to give examples of the two systems, as all modern scholars are acquainted with them. They have, however, not used this knowledge sufficiently in the emending of texts, when the numbers written out in our ordinary editions are absurd. For then it becomes very important to know what the easiest change is, which will restore the sense. It seems to be worth while to give a few examples which occurred to me during my long studies of these texts, in the hope that they may suggest to others further instances where this care may restore us the author's meaning.

Long since I pointed out that in Thucydides' account of the revolt of Mytilene, the closing sentence is absurd.
 $\pi \lambda \epsilon$ ious $\chi^{i \lambda i}{ }^{i} \omega \nu$. As the whole population of Mytilene did not amount to 5000 men, the ringleaders could hardly be over rooo, and moreover they had been interned on the little island of Tenedos, where there is no accommodation for such a crowd and their guards. What an early scribe had before him was $\delta \lambda i \gamma \omega \pi \lambda \epsilon$ eious $\Lambda$ which might
easily be read as A and not $\Lambda$. Indeed in many papyri there is no difference in the letters. Reading A he thought naturally that it was absurd, and it occurred to him that it must be 'A, which is the symbol for rooo. But of course Thucydides had written $\Lambda$, 'the ringleaders who were put to death were little more than 30 .'

In the same Thucydides (iv. ir6) Brasidas offers the soldier who is the first to scale a fort the reward of thirty minae, according to our texts. Thirty minae ! for a single act of bravery and from Brasidas! As the soldier's daily pay was at the highest a drachma this reward means $30 \times 100$ or 3000 days pay. Was there ever anything more absurd ? Of course the text must have been either A or $\Delta$, which latter is the alternative adopted by Gunion Rutherford in his edition of that book.

I turn for a moment to Herodotus. He says (1. 72) that for the journey across Asia Minor at its narrowest, from the Syrian Gulf to the Black Sea, $\epsilon \dot{\nu}\} \dot{\omega} \nu \omega \dot{d} \dot{\nu} \delta \rho i \pi \epsilon \in \nu \tau \epsilon$ $\dot{\eta} \mu \dot{\rho} \rho a t \dot{\nu} \nu a \iota \sigma \iota \mu о \bar{\nu} \nu \tau \alpha \iota$, which is absurd. And yet Herodotus must have known the truth. Now instead of ANDPIEHMEPAI all we have to read is ANDPIIEHMEPAI к.т.入. and we get the truth. It is really about 15 days active travelling. How easily can we imagine an ignorant scribe leaving out the adscript $\iota$, so that the next writer attached the remaining one to the previous, instead of the following sign.

I turn back to Thucydides and notice a case where an important series of facts in Greek history seem to me to have been dislocated by a mistake in a figure. The historian says (irr. 68) that Plataea was overthrown 93 years after the Plataeans had entered into alliance with Athens. That brings the origin of it to 519-20 B.c. at the time that the Pisistratids were ruling at Athens. But the story of its origin is told with some detail by Herodotus (vi. Io8) and he speaks throughout of the Athenians, and ignores their tyrants. The accession to the throne of Sparta by Cleomenes is also moved up to be earlier than 520 ,
though there are many reasons to think that such a date is in this case also too early. I will add that the appearance of all the Plataeans on the field of Marathon seems to have been a sort of surprise, whereas if the alliance had already lasted 30 years, this could hardly be the case. Grote, whose insight was superior to his successors' in such matters, suspected a mistake in Thucydides' figures, but as he only had the lapidary system he proposed to substitute 83 for 93 by leaving out one sign for $10(\Delta)$. As, however, Thucydides certainly wrote the literary symbols, he must have written either $\varphi \Gamma$ or something which was mistaken for it. Of course far the nearest number in shape would be OГ (73), and this, I believe, was changed by some scribe's mistake into $Q \Gamma$. If we try Grote's suggestion we should have $\Pi \Gamma$, which is far more unlikely to have been changed to $\Theta \Gamma$. The reasons why I think $\Pi Г$ (509 в.с.) a very difficult moment for the transaction, or for the proper fitting of it into the very obscure period of Attic history about 500-498, would require a long discussion which would hardly be suitable for this place. Here I merely propose to read Or (73), and I think it will commend itself to those who are not committed to the earlier date and who have excogitated arguments to support it. Such people are of course very hard to persuade.

J. P. Mahaffy.

## THE TEMPLES OF DIVUS AUGUSTUS AND APOLLO PALATINUS UPON ROMAN COINS ${ }^{1}$

When Huelsen, Richter and Lanciani agree upon a point of identification only on very serious grounds could that identification be overthrown. All these three believe that a certain bronze coin of Caligula ( $37-40$ A.D. ; Cohen, 9, IO, 1I) represents the temple of Divus Augustus. It is figured as such in Huelsen's Forum Romanum (p. 136) and in Richter's Topographie von Rom (p. 152). The design gives an Ionic temple, hexastyle, with much sculptural ornament and hung with garlands; before it Caligula as Pontifex Maximus at a sacrifice; the inscription is DIVO AVG(usto) S.C. The obverse has a throned figure of Pietas holding a patera, and behind her a statuette of a priestess; the inscription C. CAESAR AVG. GERMANICVS P. M. TR. POT. fixes the earliest date to 37. The sacrifice is evidently to Divus Augustus, the founder of the imperium; Suetonius (Cal. 21) says that Caligula completed the templum Augusti 'half finished under Tiberius.' In default of evidence to the contrary it is at least a natural supposition that the temple before which the sacrifice takes place is that of Divus Augustus and not another deity and that Caligula completed it in the first year of his reign.

The main thesis of my paper is that (I) the Tiberian temple of Divus Augustus which Caligula in some sense completed is represented on a coin of Tiberius as a building totally different, and (2) that the coin of Caligula represents, not the temple of Divus Augustus, but that of Apollo Palatinus.

To this I add a brief account of an entirely new

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36 A.D.
35 A.D.
COIN OF TIBERIUS (COHEN, 68~70)


37 A. D.
COIN OF CALIGULA (COHEN, 9-II)
theory as to the site of the 'Templum Novum Divi Augusti' and the buildings connected with it.

In the years 34,35 , and 36 were struck the bronze coins (Cohen, Tibère $68-70$ ) which I reproduce.

They represent a hexastyle Corinthian temple, but give variant versions of its sculptural ornamentation, which the engraver has placed above and not within the pediment. Round the back of the temple runs a curved wall as high as the top of the architrave ; it is elaborately ornamented and has a large rectangular aperture on either side. On pedestals beside the steps of the approach stand statues of Mercury with caduceus (left) and Hercules with club (right). Within the cella is the temple-statue, a male figure seated upon a curule chair above a basis, turning half to his right, with a sceptre in his left hand and in his outstretched right an object ${ }^{1}$ too small to be distinguished. Cohen, inaccurate in many details, recognises 'Augustus Nicephoros.' That it is Augustus cannot be doubted; a similar type is seen on his own coins (e.g. with Victory, Cohen $116,=$ B.M. Catalogue, 4362 (Rome)) and on the Bosco Reale cup (Monuments Piot. vol. v.; Mrs Strong's Roman Sculpture, p. 82).

This is one of the very few original designs on coins of Tiberius; it appears only in the last years of his reign and twenty years after Augustus' death. What building of the period is represented? Suetonius, who is always unfair to Tiberius, says (at Caligula, 21) that Caligula opera sub Tiberio semiperfecta, templum Augusti theatrumque Pompei, absoluit; he is consistent, for at Tiberius, 47, he writes: princeps neque opera ulla magnifica fecit-nam et quae sola susceperat Augusti templum restitutionemque Pompeiani theatri, imperfecta post tot annos reliquit. But the much better authority of Tacitus implies that Tiberius had completed and only not dedicated the temple; Annales vi. 45, modicus priuatis aedificationibus ne publice quidem

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nisi duo opera struxit, templum Augusto et scaenam Pompeiani theatri; eaque perfecta, contemptu ambitionis an per senectutem, haud dedicauit.

Dio Cassius (57. Io), while clearing Tiberius of any imputation of meanness, confirms the others on the main
 Aúrov $\sigma \tau \epsilon$ íou к $\alpha \tau \epsilon \sigma \kappa \epsilon \cup \alpha ́ \sigma \alpha \tau о$.

We know, then, that Tiberius practically completed in his old age the temple of Divus Augustus, but that after he was princeps he built no other new and conspicuous temple. Here is a temple of Augustus upon coins struck only in the last three years of Tiberius' life, with absolutely no indication upon the coin that the temple was to be seen in a city other than Rome.

A closer examination will, I trust, establish my view that we have here the Tiberian temple of Divus Augustus, a view in which I have been anticipated by Furneaux (Tacitus Ann. vi. 45) and perhaps by others, but which has hitherto received no notice from the archæologists. (Furneaux himself seems to have thought that the same temple recurs on the coin of Caligula, which is far from the case.)

First let us consider the sculptural ornamentation of the pediment. The variant designs agree upon an important point; they give in the centre of the group a triad of divinities, and though these are called by Cohen the Capitoline triad, I contend that he is in error. Here is no bearded Jupiter, but Apollo between Diana and Latona. Latona has a staff in her left hand as in the Sorrentine altar relief, which gives the Palatine triad and in this grouping. This Palatine triad, inter matrem deus ipse interque sororem, is a reference to the Apollo temple of Augustus and suggests that this temple also is in Palatio.

On the specimens of 35 A.D. a group of a female divinity and a soldier bending forward and offering a laurel bough to her fills either side of the field. The soldiers remind us of the Augustan coins of Gaul upon which
the Emperor seated on a sella castrensis placed on a suggestum receives similar homage (Cohen, Aug. I 30-135: B.M. Catalogue, Gaul, i56-I6I). It is held that the soldiers on those coins are Tiberius and Drusus, owing to whose victories Augustus was Imperator $X$.

The divinities seem to be the types of Constantia Augusti, with staff and cormucopia (left) and the Augustan Ceres, also with a staff (right).

This motif of the bending soldiers is admirably adapted for the lower part of a pedimental group, and the triad for its centre. It is therefore an easy conjecture (I think that Mr G. F. Hill first suggested it to me) that these seven figures upon the summit of the pediment belong within it, in the arrangement indicated. There may have been some recumbent figure in each angle, but these are not represented here. The engraver desired more space than the field of the pediment on this small scale ; and the empty angle bears witness that no other sculpture was there.

On the specimens of 36 A.D. these soldiers are omitted and the female divinities, Constantia and Ceres, have changed sides. At the angles of the pediment appear winged Victories. From which we may infer that the actual acroteria were Victories.

Secondly let us consider the pair of statues before the exterior columns of the façade. Hercules, the invincible man made god in Rome, according to Roman legendthe paladin of civilisation-and Mercury the orator, the interpreter of the gods to men, are a fitting pair to mount guard before the shrine of Augustus. But these statues on pedestals mark out this coin-type from almost all others representing Roman temples. It cannot be a mere chance that they recur upon the coins of Antoninus Pius (Cohen, i-8, 797-8io) which record the restoration by him in I5 I A.D. of the Temple of Divus Augustus (TEMPL. DIV. AVG. REST. COS. IIII. S.C.).

The Antonine temple has eight columns; within are
seated both Augustus and Livia, who was added by Claudius. The pediment is adorned with a triad of divinities (797), called by Cohen the Capitoline, but by me the Palatine triad; in the angles apparently are reclining figures. Over the apex is a quadriga; 'les deux colonnes extérieures ont une statue placée un peu en avant sur une base et une statue sur leur sommet' ( 797 ; cf. 3). That is, the statues of Hercules and Mercury maintained their relative position, as did the Victories at the angles of the pediment. Cohen, 3 , has the two soldiers carrying laurel boughs above the angles, as seen on Tib. 68.

The conjecture that the triad were within the pediment is confirmed; and the reclining figures in the angles we had presupposed.

Thirdly, let us consider the curved wall, as of an exedra, behind the temple, and the two more distant Victories which seem to rise above and behind that on either of the two Tiberian types.

We notice in passing that there is ample space on either side of the Tiberian temple for an extension of its width to the eight columns which Antoninus and perhaps Domitian before him gave it. Also that the projection of the wall, with its apertures, gives a general effect somewhat resembling that of the Concordia temple in the Forum as restored by Tiberius.

This great and high wall, finished off at each end with a Corinthian pilaster, is evidently designed for an artistic background and is best comparable in the Rome of Tiberius' day to the huge containing wall of the Forum Augusti which formed a background for the Temple of Mars Ultor. (Our apertures might possibly be only niches, like the niches there.)

Now the military diplomas ( $=$ tabulae honestae missionis) were posted from about 90 A.D. to 298 , not in the Capitol as of old, but Romae in muro post templum Diui Augusti ad Mineruam (C.I.L. in. p. 843). There was therefore
a notable wall behind this temple from Domitian's time onwards, and our coins indicate that it was part of the original design of Tiberius. Are the more distant pair of Victories seen over it to be thought of as placed upon the summit of the wall, or as crowning buildings unseen behind it, which yet form part of the whole Augusteum? That is a question which the coin itself cannot answer; but we shall return to it in a later section of this paper.

I claim to have established my first contention, that the temple shown upon Tiberian coins of 34,35 and 36 A.D. is the completed, but still undedicated, temple of Divus Augustus, with its statuary already in situ.

If my first contention is sound, it must at once be admitted that Huelsen, Richter and Lanciani are all in error as to the temple represented on Caligula's coin (Cohen, 9), with which this paper began. This was first struck in $37-38$, the year of his accession, and again in 39-40 and 40-4 (trib. pot. iiii.) ; it follows immediately in time upon the Tiberian temple-type struck in 34,35 and 36 , and is, as it were, a complement to it. There are no more such till the series struck by Domitian in 88 for the Ludi Saeculares.

Clearly the temple figured by Caligula is not the Tiberian temple of Divus Augustus seen on the other coin. This temple is hexastyle indeed, but of the Ionic order, whereas that was Corinthian. There are no statues or pedestals before this façade nor curved wall behind. The pillars are short for the width of the pediment, the angle of which is flat. (Note that a line drawn from the top of the $S$ to the top of the $C$ gives the level of the pillar-bases; below are the side-walls of the stairway leading up from the altar.)

The pediment of this heavy-headed Ionic temple is ornamented with sculptures above and within. Above, upon the apex, is a quadriga with the Sun-god as charioteer;
towards each angle an archaic Victory raising a garland over her head (the Victory on the left is double on some specimens) ; over the angles (left) a Greek with a torch and (right) Aeneas leading Ascanius by the hand; then crockets. Within the pediment the central place is held by a figure which Cohen calls Mars but which seems to be helmeted Pallas with a spear in her left hand and a wreath in her right advancing towards Hercules (left) with ox-goad and club. A seated figure nearer to the angle offers Hercules another wreath. The right side of the pediment is occupied by a male figure with a wreath in his right hand and apparently a caduceus held upwards in his left; I call him Mercury, and he is conferring his wreath upon a seated figure nearer to the angle. As the sex of the seated figures is indeterminate I will offer no conjecture as to their identity. (They are shown as immediately under the Victories and an architectural line divides them from the angles themselves, which would seem from this fact also to have been specially acute, as in a low and heavy pediment.)

My own studies for my book on the Palatine Hill enabled me to recognise this temple at once, in spite of the inscription which has misled others, as that of Apollo Palatinus. The Palatium of Augustus, as I there show, was Ionic within and without. Vitruvius (in. 3.4) says that the temple was ' diastyle,' i.e. that the intercolumniation was thrice the diameter of the column, and adds the comment that this width is too great and the architrave is sometimes broken. The intercolumniation shown on the coin is very wide for the height of the columns and the general effect is archaistic.

Propertius speaks of the golden chariot of the Sun over the pediment (iI. 3I. II, old style, auro Solis erat supra fastigia currus), and Pliny of the archaic Victories by Bupalus and Athenis in fastigio (N.H. xxxvi. 1 3 ). The coin presents these features. The Greek with his torch firing Troy and Aeneas and Ascanius flying thence
are highly significant of Troia renascens, as is Pallas of Pallanteum and Palladium, Mercury of Arcadians, Hercules with his ox-goad of the return from Erythia, of the foundations of old and new Troy, of the battle for civilisation against Cacus. All this symbolism is in place upon the temple of Apollo Palatinus, founded upon Roma Quadrata at the centre of the Empire.

Before this temple Caligula is represented as sacrificing to Divus Augustus by the will of the Senate (DIVO. AVG. S. C.), from the year 37 to 40.

Now from the time of Augustus' death the appointed sacrifices to his divinity were performed in the temple of Mars Ultor which he had built; Dio 55. 46 : $\dot{\epsilon} \nu \notin \dot{\delta} \delta^{\circ}$ ỡv


 have no longer any evidence that Caligula dedicated the completed temple and subsidiary buildings as soon as $37-38$; we only know from Josephus (Ant. Эud. xix. 75,87 foll.) that he sacrificed before it at a great festival on January 24th, 4 I , the day of his murder. If then our coin was first struck in 37 , it need signify no more than that Caligula broke, in this matter of ritual as in all else, with the tradition of his hated predecessor, and transferred a part of the official worship of Augustus from the temple of Mars Ultor to the still more intimately Augustan temple of Apollo Palatinus, with whose foundation was bound up the Imperium.

But it seems likely that just at this time the worship of Augustus entered upon a new phase. 37 A.D. is the centenary of his birth in 63 в.c., and Tiberius may have designed to dedicate the 'Templum Novum Divi Augusti' in this year. The partial fusion of Augustus and his own A pollo seems indicated upon the coin-type; the way in which such a fusion was prepared by the Founder of the Imperium himself is made more clear in my book on the Palatine Hill. If the day of Caligula's accession was
called 'Parilia, uelut argumentum rursus conditae urbis' (Suet. I6. 4), the true second Founder, of whose Palatium the Apollo temple formed a part, might surely be honoured upon Square Rome itself.

Antoninus Pius, who rebuilt the Augustus temple, as we saw, in 15 I , struck coins in $140-143$ (Cohen, $58-63$ and 704) with the types of 'Romulus Augustus' and 'Apollo Augustus' upon them ; but how far these legends witness to any fusion of the divinity of Divus Augustus I should not like to determine. Nor is this the occasion for a discussion of the cult of Augustus. (For details of the birthday sacrifices by the Arval College on Sept. 23rd and $24^{\text {th }}$ in the reigns of Tiberius, Caligula and Claudius see Henzen, Acta Fratrum Arvalium, pp. 5 I foll.)

Caligula's annual sacrifice to Divus Augustus before the temple of Apollo Palatinus provides an interesting problem, but it seems to myself likely that it recorded the perpetuity of the Imperium, founded by Augustus within Roma Quadrata before this temple. It was before this temple that the ritual of accession always took place.

I will close with a brief account of my restoration and identification of the site of the temple of Divus Augustus, upon which the Tiberian coin has considerable bearing.

The Augusteum included besides the temple itself a Library over fifty feet high containing the colossal bronze Apollo from Syracuse (Suet. Tib. 74 ; Plin. N. H. xxxiv. 43). Pliny (vir. 58) also speaks of a library of Minerva in Palatio in which a certain Delphic tablet with Greek inscription was dedicated dono principum. Comparing these passages with Martial xir. 3. 7 (ioi A.d.) where the poet bids his book seek ' the holy threshold of the Templum Novum,' that is, the Augusteum, reddita Pierio sunt ubi tecta choro (MSS. templa), I infer a double library, the Greek part under Minerva's tutelage, the Latin under A pollo's. The murus post templum Diui Augusti gives the
clue that this library was behind the temple, for the diplomas were fixed in it ${ }^{1}$ ad Mineruam, that is, opposite that part of the library which was sacred to her, unless in Domitian's day the whole was considered sacred to his patron goddess. There must have been a space, or thoroughfare, between the back of the 'wall' and the façade of the library, allowing passers-by to examine the diplomas; this space divided the Augusteum into its two halves, and here it was traversed, in my view, by Caligula's 'bridge' or viaduct, which led from the palace of Tiberius to the Capitol, and which Suetonius (Cal. 22) says was thrown super templum Diui Augusti.

If there was a large and lofty double library at a certain distance behind the temple, there was no building before it. Josephus (Ant. Jud. i 9. 75, 86 foll.) describes a very considerable, if enclosed, space stretching before it to the palace of Caligula, a little in front of which was set up the wooden shed for the actors and performers in the annual $\theta \epsilon \omega \dot{\rho}$ ıcat to the honour of Augustus. Between the shed and the temple half Rome was assembled on January 24 th, $4^{1}$ A.D., the day of Caligula's murder ; the space had been converted into a temporary theatre, with exits into the open air and into a portico (l.c. 90). Caligula passed through the crowd (87) to the altar of Augustus, and, having sacrificed, turned to the show, $\epsilon \pi i$ $\tau \dot{\eta} \nu \theta \epsilon \omega \rho{ }^{\prime} \alpha \nu \quad \tau \rho \alpha \pi \epsilon i s \dot{\epsilon}_{\epsilon} \kappa \theta \theta_{\epsilon}^{\prime} \zeta \epsilon \tau о$ (89). The stage was at the end of the space furthest from the temple, towards which of course he had faced for the sacrifice. All the space was considered a part of the Palatium (86), just as the temple was always described as in Palatio. Caligula entered it directly from his palace ; he returned from it directly to his palace again. After the murder and the

[^136]wild vengeance upon innocent Asprenas and his company the German bodyguard set up the heads of the victims on the altar in sight of the crowd (142).

Now, if a viaduct was thrown by Caligula (and why not ?) across the Velabrum valley, spanning the Augusteum on its way, clearly the library, temple and temple area lay on the low ground immediately below the palace of Tiberius (domus Tiberiana) on the north-west flank of the Palatine. As they lay in Palatio, they must have been on the Palatine side of the Vicus Tuscus; and we are thus forced to the conclusion, even before we examine the ground, that, unless the writers misrepresent the truth, we shall find them in the angle between the Vicus Tuscus and the descending Clivus Victoriae, but on the level of the former. The domus Tiberiana did not extend upon the summit far beyond San Teodoro on the low level. Therefore the viaduct cannot have crossed far to the south of that point ; nor did it cross north of it, for the level of the Vicus Tuscus has been cleared there and reveals no sign of the temple beneath its span. What lies revealed is a large open area paved with travertine and contained on the north and east, that is, on the sides of the Forum and the Clivus Victoriae, by a monumental row of two-storied shops of the age between Augustus and Claudius. These shops are of solid tufa with reticulate back walls and were ornamented on the façade with Corinthian pilasters of travertine of which fragments remain. On the west, towards the Vicus Tuscus, are signs of a portico containing the area; these are clearest at the north-west corner. The centre of this large open area was built over with brick shops and halls at a period later than the partition of the Empire ; the original travertine pavement remains below them.

If we take our stand at the north end and look southwards we see the area narrowing towards S . Teodoro; but it has not been cleared of débris so far as that. Between us and the Forum is a vast composite building of

Domitianic brick which has been thought, upon most insufficient grounds, to be the temple and library of Divus Augustus. The enormous hall to the west had three storeys, as the traces of the stairways on the eastern wall prove. The ground floor was surrounded with niches for statues. The western wall has fallen away, perhaps chiefly because of the lofty windows which once penetrated it and lit the whole interior. The smaller hall to the east, out of which Sa Maria Antica was made, was also surrounded with statues and had upper storeys. This whole Domitianic structure, once faced with marble, was a library in two parts, presumably Latin and Greek; and there were inner chambers for administration or study in the angle between the south wall of the large hall and the containing wall of the travertine shops round the area to the south.

But there was not always a library here. Later excavations beneath the floor levels have revealed the earlier foundations of a perhaps scarcely less gigantic edifice covering this site. Under the forecourt of $\mathrm{S}^{2}$ Maria Antica is the impluvium of a huge atrium, and under the larger hall a series of wall-bases for dwelling-rooms (Plan: Huelsen's Forum Romanum, p. 138). All these are orientated in agreement with the lines of shops in the area to the south, not, as in Domitian's libraries, with the line of the Basilica Julia and Castor and Pollux temple in the Forum. In the basin of the impluvium was found a tile fallen from the roof, with inscription (Ger)manici $f$., i.e. Caligula. When therefore we read (Suet. 22) that Caligula partem Palatii ad forum usque promouit atque aede Castoris et Pollucis in uestibulum transfigurata consistens saepe inter fratres deos medium adorandum se adeuntibus exbibebat, we conclude that the impluvium is that of the regilm atrium of this emperor and that he connected with it for vestibule the adjoining temple of Castor and Pollux. The 'part of the Palatium' which he pushed forward as far as the Forum is that which Tiberius and Livia had been erecting
in honour of Divus Augustus on the space between the Vicus Tuscus and the Clivus Victoriae; and it would seem that he connected not only the Castor temple but the Basilica Julia with his residence, by a bridge thrown over the Vicus Tuscus, and used the roof for a terrace, for he spent days there scattering largesse down to the populace (Suet. 37. 1). This palace, in which Caligula lived and also met his death, was burned down in one of the great fires (Suet. 59); in ea domo, in qua occubuerit, nullam noctem sine aliquo terrore transactam, donec ipsa domus incendio consumpta sit. Over the site of it Domitian erected the library of Minerva, which was really her chief temple in Rome and is mentioned in the Curiosum next to the temple of Castor and Pollux: basilicam Fuliam, templum Castorum et Mineruae, Vestam... It is also mentioned by Martial at least once (iv. 53. I ; 88 A.d.) ; bunc quem saepe uides intra penetralia nostrae Pallados et templi limina, Cosme, noui. Here the new double library of Pallas, nostrae, because Domitian's and Rome's, is distinguished from the earlier but neighbouring double library of the Augusteum, in which also Pallas claimed a share from Apollo and the Pierian choir. It is presumably this Domitianic library to which the second-century inscription from Privernum (C. io. 644I) refers: praepositus palladii Palatimi. The two great libraries together, Pallados et templi novi, made up the Bibliotheca domus Tiberianae (Gell. I 3 . 19. I ; Hist. Aug. Prob. 2, etc.), for each was pars Palatii.

In the days of Caligula, then, the ground from the Castor temple southwards was covered first by his own private palace on the low level, then by the area which Tiberius had cleared and paved and surrounded with monumental rows of shops on north and east and with a portico on the west, then by the temple of Divus Augustus facing down this area to the palace and the Forum, the temple seen on our coins; behind the temple was a thoroughfare, a short cut from Vicus Tuscus to Clivus Victoriae, with the viaduct above crossing directly
from hill to hill. South of that, and now some way south of San Teodoro, was the library of the Templum Novum. In Richter's Topographic von Rom the first plate (p. 4) shows the fragments of the Forma Urbis (Jordan vir. 37, xiv. 86) which preserve the plan of the angle between Clivus and Vicus beyond the library southwards. It will be seen that the northern extremity preserved gives a large building divided into two parallel halls facing northwards and together occupying the whole space from road to road. These I take to be the Greek and Latin libraries of Apollo (east) and Minerva (west) which together made up the Bibliotheca Templi Novi Divi Augusti.

The two Victories seen on the Tiberian coins above or behind the exedra and above the pillars on the Antonine coins may perhaps belong to the summits of the pediments of the two halls.

The large area between Caligula's palace and the temple continued till 203 A.D. (Dio Cass. 76. 3. 3) to be the scene of $\theta \epsilon \omega \rho \iota \alpha \iota$ in honour of the 'heroes in the Palatium,' the Divi. It was really the Forum Tiberii, opening out the crowded regions of the city south of the Forum as the Fora Gulii and Augusti had opened out the northern side. But Tiberius did not set his own name to his works, and this one Caligula completed.

In some year between 364 and 367 A.D. Valentinian Valens and Gratian presented an area called the Forum Palatinum to 'their own Roman people' (C.I.L. vi. I I 77). The 'Anonymus Einsidlensis' saw the inscription as he came from S' Anastasia, near by. 'Their own Roman people' used the gift in their own way, by covering the travertine pavement with the mean brick shops and halls now visible in the middle of it. So that before 364 the emperors were unable to continue the shows in honour of the Palatine heroes, and, in particular, of Divus Augustus, founder of the Imperium, upon the site which he had doubtless himself designed for them.
O. L. Richmond.

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SKETCH MAP TO ILLUSTRATE THE SITE PROPOSED FOR THE TEMPLE OF DIVUS AUGUSTUS.
$A$ to $B$ is founded upon Forma Urbis (Jordan vil. 37 and xiv. 86 ; Richter, Topographie woil Rom, p. 4, taf. 1), $B$ to $C$ upon the coin of Tiberius (Cohen $68-70$ ), $C$ to $D$ upon the excavated remains in situ.

The buildings of Tiberius and Caligula (with the shops and markets to the S.W., which are of unknown date) are given in thin lines; the subsequent building of Domitian on the site of Caligula's palace is given in thick lines. The brick buildings later than the division of the Empire now visible in the temple area about $E$ are omitted. The temple itself was restored by Antoninus Pius with octostyle façade. (The north corner of Caligula's palace was probably connected by bridges with the cella of the Castor temple and the roof of the Basilica Julia.)

## NEPHELOKOKKXGÍA

Not a few of Aristophanes' most piquant situations depend for their effect on the poet's dexterous juxtaposition of sacred and profane. Festive words to a solemn tune, a commonplace picture in a heroic frame, a secular foreground with a religious background-these were obvious means of appealing simultaneously to the lower and to the higher instincts of the Athenian populace. Especially frequent are such scenes in the later comedies, which exchange crude personal abuse for delicate social satire and betray an increasing interest in both ritual and myth.

It will, therefore, readily be conceded that the brilliant finish of the Birds with its marriage of Pisthetairos and Basileia was a serio-comic variation on a high religious theme, a whimsical application to contemporary life of the great hieròs gámos which in various Greek communities linked Zeus with Hera. The particular version chosen and the precise twist given to it were of course determined by the circumstances of the day.

Aristophanes brought out his Birds at the City Dionysia of the year 4I4. But Mr B. B. Rogers has shown that in all probability the play had been 'long in incubation,' indeed that it had been taken in hand soon after the production of the Peace in $42 \mathrm{I}^{1}$. Now the events of the period immediately succeeding the peace of Nikias had turned all eyes towards Argos, which then became the centre of more than one new political combination ${ }^{2}$.

[^137]The Argives in a sense held the balance between Athens and Sparta, a fact that the poet fully appreciated ${ }^{1}$. And at Argos there had been a deal of wobbling. The successive alliances of the Argives with the Athenians (420), with the Spartans (4I8), and with the Athenians again (417) must have been received at Athens with alternate outbursts of enthusiasm and disgust. What the Athenian 'optimist,' the Euelpides of the moment, really wanted was a staunch and loyal ally, a 'trusty comrade,' a Pisthétairos ${ }^{2}$.

If the conclusion of the Birds was indeed based on the hieròs gámos, and if at the time of its writing popular attention was thus directed to Argos, it may fairly be surmised that, when Aristophanes called his castle-in-theair Nephelokokkygia, he had in mind-inter alia, no doubtthe Argive Mount Kokkygion with its myth of Zeus the cuckoo ${ }^{3}$. Aristotle tells the story ${ }^{4}$. Zeus, seeing Hera all by herself, was minded to consort with her. To secure her by guile, he transformed himself into a cuckoo and perched on a mountain, which had previously been called Thrónax, the 'Throne,' but was thenceforward known as Kókkyx, the 'Cuckoo.' He then caused a terrible storm to break over the district. Hera, faring alone, came to the mountain and sat on the spot where there is now a sanctuary of Hera Teleía. The cuckoo flew down and settled on her knees, cowering and shivering at the storm. Hera out of pity covered it with her mantle. Thereupon

[^138]Zeus changed his shape and accomplished his desire, promising to make the goddess his wedded wife. Pausanias adds that Mount Kokkygion and Mount Pron over against it were topped by sanctuaries of Zeus and Hera respectively ${ }^{1}$. Further, he brings the myth into connexion with the famous cult of Hera at Argos. The templestatue was a chryselephantine masterpiece by Polykleitos. The goddess sat enthroned. On her head was a band decorated with figures of the Charites and the Horai. In one hand she held a pomegranate, about which a tale not rashly to be repeated was told ; in the other she had a sceptre surmounted by a cuckoo, the subject of the foregoing myth ${ }^{2}$. Strabo says of this statue that, though in point of costliness and size it fell short of the colossal works of Pheidias, yet for sheer beauty it surpassed all others ${ }^{3}$. Maximus Tyrius in a few well-chosen epithets records the effect produced by the ivory arms, the exquisite face, the gorgeous drapery, the queenly bearing, and the golden throne ${ }^{4}$. Greek and Roman poets vied with each other in praising the sculptor's creation. To cite but a single epigram, Martial wrote :

> Thy toil and triumph, Polykleitos, stands-
> Hera, beyond the reach of Pheidias' hands.
> Had Paris this sweet face on Ida seen,
> The judge convinced, the rivals scorned had been.
> Loved he not his own Hera's form divine,
> Zeus might have loved the Hera that is thine ${ }^{5}$.

I need not labour the point. The myth was well known, and the statue immensely famous. But, if I am right in my conjecture that the close of the Birds was penned with conscious reference to the Argive form of the hieròs gámos, Pisthetairos the human bird who directs affairs in Nephelokokkygia ought to be a quasi-Zeus and to mate with a quasi-Hera. That is precisely what he is, and that is

[^139]precisely what he does. After forcing the gods to capitulate through hunger, he allows the genuine Zeus to retain the genuine Hera ${ }^{1}$, provided that Zeus restores the sceptre to the birds ${ }^{2}$ and to their leader hands over Basileia, the ' Queen ${ }^{3}$,' a beautiful girl who has charge of his thunderbolt and other belongings ${ }^{4}$ and is described as enthroned at his side ${ }^{5}$. The play ends with the appearance of the new bridal pair in all their glory, the final chorus being so contrived as to emphasise the analogy, nay more the substantial identity, of Zeus and Hera with Pisthetairos and Basileia. I quote the lively lyrics of Mr Rogers ${ }^{6}$ :

Chor. Back with you! out with you! off with you! up with you! Flying around
Welcome the Blessed with blessedness crowned.
$\mathrm{O}!\mathrm{O}!$ for the youth and the beauty, O !
Well hast thou wed for the town of the Birds.
Great are the blessings, and mighty, and wonderful, Which through his favour our nation possesses. Welcome them back, both himself and Miss Sovereignty ${ }^{7}$, Welcome with nuptial and bridal addresses.

Mid just such a song hymenaean
Aforetime the Destines led
The King of the thrones empyréan,
The Ruler of Gods, to the bed
Of Hera his beautiful bride.
Hymen, O Hymenaeus!
And Love, with his pinions of gold, Came driving, all blooming and spruce,
As groomsman and squire to behold
The wedding of Hera and Zeus,
Of Zeus and his beautiful bride.
Hymen, O Hymenaeus !
Hymen, O Hymenacus !
Pisth. I delight in your hymns, I delight in your songs;
Your words I admire.

[^140]Chor. Now sing of the trophies he brings us from Heaven,
The earth-crashing thunders, deadly and dire,
And the lightning's angry flashes of fire,
And the dread white bolt of the levin.
Blaze of the lightning, so terribly beautiful,
Golden and grand!
Fire-flashing javelin, glittering ever in Zeus's right hand!
Earth-crashing thunder, the hoarsely resounding, the Bringer of showers!
He is your Master, 'tis he that is shaking the Earth with your powers!
All that was Zeus's of old Now is our hero's alone; Sovereignty, fair to behold, Partner of Zeus on his throne, Now is for ever his own. Hymen, O Hymenaeus !
Pisth. Now follow on, dear feathered tribes, To see us wed, to see us wed;
Mount up to Zeus's golden floor, And nuptial bed, and nuptial bed.
And O, my darling, reach thine hand,
And take my wing and dance with me,
And I will lightly bear thee up,
And carry thee, and carry thee.
Chor. Raise the joyous Paean-cry,
Raise the song of Victory.
Io Paean, alalalae,
Mightiest of the Powers, to thee!
Throughout this splendid éxodos Pisthetairos is clearly conceived as the new Zeus. He is no longer referred to by his old name-though that might well have passed as a compound of Zeus Pistios, guardian of oaths ${ }^{1}$, and Zeus Hetaireîos, god of good-comradeship²-but always by some phrase descriptive of the Olympian king. He comes

Wielding the winged thunderbolt of Zeus ${ }^{3}$.
The chorus at his approach sing of 'the fiery lightnings

[^141]of Zeus ${ }^{1}$ ，＇＇the immortal spear of Zeus ${ }^{2}$ ，＇etc．，and salute their leader himself as＇having won all that belonged to Zeus ${ }^{3}$ ．＇The scholiast is puzzled，and comments on the line－

He is your Master，＇tis he that is shaking the
Earth with your powers！－
＇He means Zeus of course，or Pisthetairos now that he has got Basileia ${ }^{4}$ ．＇But the meaning of the chorus is quite unmistakeable．When Pisthetairos，bride in hand，is escorted＇to Zeus＇floor and marriage－bed ${ }^{\text {b }}$＇，they acclaim him with all the emphasis of a farewell line as＇highest of the gods ${ }^{6}$ ．＇

Pisthetairos is Zeus．And Basileia is－who？An Athenian audience of the year 414 could hardly have hesitated ${ }^{7}$ ．The partner of Zeus must needs be Hera．





${ }^{6}$ Id．ib． 1765 баицо́vшу $\dot{\text { íf }}$ ртатє．
${ }^{7}$ The Aristophanic Baбìtea has been variously identified：（ 1 ）as Baбi入єia，a personification of Royalty（schol．Aristoph．av．1536）；（2）as a daughter of Zeus，who dispensed immortality and was called by some＇A⿴囗⿱一一 grammarian ap．schol．Aristoph．av．1536）；（3）as Athena（F．Wieseler Adversaria in Aesihyli Prometheum Vinctum et Aristophanis Aves Gottingae 1843 p． 124 ff ．，cp．Tzetz．

 worshipped at Athens under the name Baбi $\lambda \eta$ or Bafi $\lambda \epsilon t a$（O．Kern in Pauly－Wissowa Real－Enc．iii． 41 ff ．s．v．v．），whom some take to be a＇Qucen＇of Heaven（H．Usener Göternamen Bonn 1896 p． 227 ff．），others a＇Queen＇of the Underworld（G．Loeschcke Vermutungen $\approx u r$ griech．Kunstgeschichte und $\approx u r$ Topographie Athens Dorpat 1884 p． 14 ff．）． See further O．Gruppe Griechische Mythologie und Religionsgeschichte München 1906 p．ro8in． 5.

The latest attempt to solve the problem is that of Mr J．T．Sheppard tis＇gтiv $\dot{\eta}$ Bafìtea；in the Fasciculus Ioanni Willis Clark dicatus Cantabrigiac 1909 1pp．529－540． Mr Sheppard，after rightly insisting that the solemnity of the final scene in the Birds implies a clear reference to the sacred marriage of Zeus and Hera，turns aside to the sacred marriage of Dionysos and the $\beta a \sigma i \lambda \iota \sigma \sigma a$ ，and concludes that Baбi $\lambda_{\epsilon} \quad$ is（6）an imaginary goldess，whose name suggests the consort of the god of comedy．＇Peithetairos， on this hypothesis，recalls to the audience Zeus，with a touch of Dionysos．Basileia recalls the Basilissa，not without a touch of Hera＇（op．cit．p．540）．The iєpoк $\bar{\rho} \boldsymbol{\xi} \xi$ and the $\gamma \in p a p a i$ attendant on the Buri $\lambda$ tora（Dem．c．Neaer．78）may be found in the messenger of Aristoph．av． 1706 ff ．and in the conjectural bridesmaids of Basileia． Mr Sheppard＇s article marks a real advance in the interpretation of this difficult scene； but－to yuote his own words－＇That Basileia has been caught in her true shape at last would be a bold assertion．＇

Hera in that very capacity was often called Basileia ${ }^{1}$ ． Besides，on the present occasion there is an obvious reason for picking out just this title and no other as appropriate to the goddess．If Nephelokokkygia recalls Mount Kokkygion with its myth of the cuckoo－Zeus，who wooed and won the Argive Hera，it must not be forgotten that the Argive Hera herself was worshipped expressly as Hera Basileia ${ }^{2}$ ．Aristophanes，true to a well－established tendency of the mythopoeic mind，has split off the cult－ title Basileia and transformed it into a new and brilliant personality－the quasi－Hera of Athens ${ }^{3}$ ．This bold stroke of genius ${ }^{4}$ was necessitated and justified by the whole plot of the bird－comedy．The bird－Zeus was the mate of Hera Basileia：Pisthetairos must follow suit．The sceptre， of which we hear so much in the course of the play ${ }^{5}$ ，was perhaps directly suggested by the cuckoo－sceptre of the Argive Hera ${ }^{6}$ ．

[^142]I end by anticipating an objection. Aristophanes (it may be urged), lover of old-fashioned Athens as he was, would not have appealed to an Athenian public by thus dwelling on a virtually foreign cult. Still less (I shall be told) could he have assumed in his work-a-day audience familiarity with or appreciation of a cult-statue carved by an alien sculptor for a Peloponnesian town. The objection may be met, or at least minimised, by the consideration of a certain red-figured lékythos from Ruvo, now in the British Museum ${ }^{1}$, which-if I am not in error-makes it probable that this very statue was known and admired by ordinary folk at Athens in the days of Aristophanes. The vase-painting (plate I) ${ }^{2}$, which is contemporary or nearly contemporary with our play, represents a frequent subject -the judgment of Paris. To our surprise, however, the central goddess is not Aphrodite but Hera, who sits on a throne raised by a lotus-patterned base. As befits a ' Queen,' she wears a high decorated stepháne and holds in her left hand a long sceptre tipped by a cuckoo with spread wings. Her feet rest on a footstool, and beside the further arm of her throne is an open-mouthed panther sitting on its hind legs ${ }^{3}$. Advancing towards her comes Nike with a palm-branch ${ }^{4}$. In front of her sits Paris;

[^143]
THE JUDGMENT OF PARIS, ON A RED-FIGURED LÉKYTHOS FROM RUVO, SHOWING THE APPLE AWARDED
behind stands Hermes ; above are Athena and Aphrodite -all with their usual attributes. It seems clear that the vase-painter, wishing to give an individual turn to a common type ${ }^{1}$, has made Paris award the prize of beauty, not-as tradition prescribed-to Aphrodite, nor even-as patriotism might suggest-to Athena, but to Hera, the Hera of Polykleitos. The rival goddesses are relegated to the far corners of the scene, and the chef-d'curve of the sculptor queens it in the centre. Doubtless the vasepainter showed his ingenuity by treating the pomegranate in Hera's hand as if it were the apple of discord that Paris had just presented to the fairest. In short, the vase as a whole forms an amusing parallel to the epigram by Martial already quoted.

But, whether Aristophanes was inspired by the Argive cult or not, his play certainly provides us with a problem that is at once historical, literary, religious, and artistic. As such I would commend it to a scholar who in his lectures and books has deserved equally well of Greek history, Greek literature, Greek religion, and Greek art.

Arthur Bernard Cook.

[^144]
## TWO NOTES ON NEMEAN III

I. In his opening invocation of the Muse, Pindar entreats her to come unto 'the hospitable Dorian island

 These youths form the Chorus who are to sing, in the hall or temple of the Aeginetan College of Theori, the Epinician that Pindar is sending overseas to his friend Aristoclides, a member of that College-ó $\dot{\psi} \epsilon \pi \epsilon \rho$ (1. 80). What, and where, is the 'Asopian Water' on whose brink they are tarrying? 'It is a problem,' remarks the Scholiast, ' why Pindar summons the Muse to Aegina for the performance of the Ode, and says in the same breath that the Chorus are waiting, not in Aegina, but in Nemea. For the Asopus is not in Aegina, but in the neighbourhood of Phlius and Nemea.' Among the solutions he cites, modern editors have preferred that offered by Didymus; viz. that Pindar means neither the Phliasian nor the equally famed Bœotian Asopus, but a river of the same name in Aegina. But the island has no river; and though it remains possible that some small stream ('rivulet,' Donaldson) was thus called, the 'Aeginetan Asopus' of Didymus looks very much like a mere conjecture of his own. For his authority, if he had any, would almost certainly have been known to Aristarchus; but that the latter knew nothing of an Asopus in Aegina is clear from his assuming that Pindar referred to the Phliasian river. His explanation, preserved by the Scholiast, is that the Chorus sang an
'impromptu epinician'-possibly the famous кал入ívıкоу of Archilochus-immediately after, and on the scene of, the Nemean victory; then returned to Aegina, to await the Ode which Pindar had been commissioned to write ;


 $\pi o \imath \eta \theta_{\hat{e ́ v} \tau \alpha}$ émıvíкıov. (Aristarchus plainly founded this interpretation on $11.17,18$ of our Ode, where Pindar

 he compared Ol. ix. init.-Tò $\mu \dot{\in} v$ ' $A \rho \chi \iota \lambda o ́ \chi o v ~ \mu ' ́ \lambda o s ~$




Obviously, this will not do. (1) mévovtı must go with $\grave{\epsilon} \pi^{\prime}$ 'A $\sigma \omega \pi i(\omega$ ü $\dot{\partial} \alpha \tau \iota$; (2) though $11.17,18$ may really refer to an impromptu epinician sung by the victor's comrades, Aristoclides being now middle-aged (1.76), those comrades were not the Chorus whose youth is
 word descriptive of boys' voices, P. I. 98 ; ömi vé $\omega \nu, 1.64$ ). Now, Pindar's thoughts dwell much on these young choristers-some of them, perhaps, sons of his Aeginetan guest-friends-whom he so gracefully owns as fellowartists by calling them тéктoves and the Muse 'Our Mother' (1. r). They are yearning, he feels, for her coming-in plain prose, for the arrival of the ship that will bring his deputy with the Ode they are to perform. He pictures them gathered to wait that arrival-and where should they be waiting but on the sea-shore? Again, this Ode is full of sea-faring. We have Heracles exploring the Straits of Gibraltar (11. 25, 26) ; the Aeacids twice sailing to Troy (11. 37, 59) ; the victor touching the 'Pillars of Heracles' on Life's voyage (1l. 20, 21) ; the Muse conveyed in the ship of the poet's soul (11. 26, 27). To this gallery of sea-scapes
we may add another, not the least beautiful, if we take the 'Asopian Water' to mean the sea round Aegina. I offer the following remarks in support of that interpretation.
(i) Mythology knows only one Asopus, famous as the parent of numerous daughters beloved by Zeus and other Olympians. But our authorities differ as to whether he should be identified with the Phliasian or the Bœotian river (Bacchylides upholds the former, Pindar, naturally, the latter); and from the names of his twelve daughters given by Diodorus ${ }^{1}$, it is clear that he was a blend of several divinities. The names are-Corcyra, Salamis, Aegina, Pirene, Cleone, Thebe, Tanagra, Thespia, Asopis, Sinope, Oinia, Chalcis. Of these, Thebe, Tanagra, Thespia clearly belong to the Bootian, and Cleone to the Phliasian Asopus ; but neither river has any discoverable connection with the rest of the Asopides. And we can hardly suppose each of the places they represent to have had a river which escaped notice by all the geographers. Hence we may suspect that the Asopus on whom these eponymous heroines were fathered was not a river-god at all.
(2) Etymologists compare 'Asopus' with our own 'Avon' as a generic name signifying ' Water.' To the inhabitants of small islands and maritime towns, the 'Water' par excellence is the sea, just as to riverain folk it is their local stream. Thus the simplest explanation of the inclusion of Corcyra, Salamis, Aegina, Chalcis, Sinope, among the Asopides would seem to be that they were originally ' Daughters of the Sea.'
(3) But we do not find island-eponyms affiliated to the Sea, whereas we do find one at least, Rhodos namely, affiliated to Poseidon ${ }^{2}$. Further, the Asopid Pirene, who is the Fountain-Nymph of Corinth, has

[^145]nothing to do with the sea, but a great deal with Poseidon, for her fount sprang up under the hoof of his son, Pegasus ${ }^{1}$. And the myth of Aegina suggests (what we might expect from the island's early history) that her father, Asopus, whom legend calls a son of Poseidon, was really Poseidon himself. For we read that when Zeus had carried her off, 'Asopus' wandered far and wide in search of his daughter and got news at last from Sisyphus, who had seen the deed, but would not speak until Asopus bribed him by causing a spring to rise on Acrocorinthus. (Cf. Poseidon's creation of the spring in the Erechtheum.) Zeus punished 'Asopus' for demanding redress. Now Plutarch tells us that Zeus ousted Poseidon from Aegina, as Hera did from Argos, and Athena from Athens. The stories of the Earth-shaker's contests with Hera and Athena are familiar, but we have no myth about his loss of Aegina. May we not see traces of that lost legend in the quarrel of Zeus and 'Asopus'? May not the rape of the 'heroine'Aegina represent the conquest of the Poseidon-worshipping ${ }^{2}$ island Aegina by the Zeus-worshipping Achaeans? (Cf. the myth of Protogeneia carried off by Zeus in Ol. ix., which figures the settling of Opuntian Locris by immigrant Arcadians.)
(4) It may be objected that, even if Asopus once meant simply Water, and hence was a name of Poseidon, it was so exclusively a river-name by Pindar's time that he could not have used 'A $\sigma \omega^{\prime} \pi \iota \nu \nu \dot{\nu} \delta \omega \rho$ in the sense of $\pi o ́ v \tau \iota \nu v$ v́ $\omega \omega \rho$. That I admit; but on my view he applies the term to one particular bay or strait, upon whose shore the Chorus stand expectant. And if that piece of water lay between Aegina and Salamis, it may very well have been locally called 'A $\sigma \omega \boldsymbol{\omega} \boldsymbol{\pi} \iota \nu$. For the old name of

[^146]Salamis-a name still current in Solon's time-was Asopia (Plutarch, Vit. Solonis 2).
II. In ll. i 3-16, Pindar speaks of Aegina as $\chi \omega \dot{\rho} \alpha .$.

 $\mu \alpha \lambda \alpha \chi \theta \epsilon i s \| \pi \alpha \gamma \kappa \rho \alpha \tau i o v ~ \sigma \tau o ́ \lambda \omega .$.
 $\delta \rho \mu \alpha \nu$, have been proposed, but fail to account for the corruption. Schröder would read $\dot{\epsilon} \sigma \mu o ́ v$, taking áropàv ('assembly') for a marginal gloss which crept into the text. He compares Hesychius ; $\dot{\epsilon} \sigma \mu$ ós ${ }^{\text {oó } \chi \lambda o s, \pi \lambda \hat{\eta} \theta o s \text {, }}$ $\sigma \nu \nu \alpha \theta \rho o \iota \sigma \mu o ́ s \cdot к \nu \rho i ́ \omega s ~ \delta \grave{\epsilon} \epsilon \pi \pi i \mu \epsilon \lambda \iota \sigma \sigma \hat{\omega} \nu$; and sees an allusion to the legend that the aboriginal Aeginetans were $\mu \cup \rho \rho \mu \eta к \in s$ changed by Zeus into men, and hence called Myrmidons. That is ingenious, but not happy; wishing to exalt the victor's prowess by declaring it worthy of his ancestors, Pindar would hardly remind him that those ancestors began life as ants. I propose ${ }_{\alpha}^{\alpha} \gamma \rho \alpha \nu$, which is simple, and, as I will try to show, plausible.
(1) Beside the sea-faring motif running through the Ode (see last note) we find a bunting motif. It is specially brought out that the victor's heroic prototypes were mighty hunters. Heracles $\delta \alpha^{\prime} \mu \alpha \sigma \epsilon$ $\theta \bar{\eta} \rho a s$ itt $\rho o ́ \chi o u s$ (1.24), Peleus Өє́тьv катє́мајчєь є́үкоขптí (1. 35), wrestling with her in lioness form (Nem. Iv. 63) ; and the whole third strophe is devoted to the hunting exploits of Achilles in childhood and youth. We see at once how appropriate all this is in reference to a pancratiast victor ; the qualities of strength and endurance needed in the chase were just those that alone counted in the pancration. Now it was by displaying those same qualities that Aristoclides belied not the reputation of his race-or country; it would then be a felicitous touch to call that country the 'quarry,' 'hunting-spoil' of his race (cf. árpa סopòs said of Thebes, Septem 322) if the latter were conquering immigrants.

That is just what our Myrmidons were. Since the

Early Age of Greece appeared, we have known how to interpret the presence in Aegina of these clansmen of Achilles ; and Pindar's commemoration of it is but one among many evidences of an Achaean occupation there. Legend doubtless veiled the conquest, as usual, making it the 'return' of rightful beirs to their inheritance; we have the first half of the story in Peleus' banishment from Aegina for homicide (Nem. v.) ; the sequel-the Return of the Aeacids-is missing, but we may be fairly sure it was handed down in those Aeginetan families who, like that of Aristoclides, boasted an Aeacid pedigree and were in all likelihood direct descendants of the Achaean settlers ${ }^{1}$. At least, we know for certain that Myrmidons from Phthiotis once held Aegina; it is improbable that local tradition kept no trace of their conquest; and probable that Pindar would allude to it in complimenting Aristoclides.
(2) Too much has been made of 'echoes' and 'responsions' in Pindar; but my reading is slightly confirmed by the occurrence of árpav in the last Epode...

 eagle, as in Ol. II. 87, and the quarry he swoops on from afar is the theme of the present Ode, viz. Aegina and her glories. If I am right, this image recalls and as it were parallels 11. I3-16. The Theban Eagle's prey was once the prey of the Myrmidons, i.e. the Aeacids, whom Pindar so constantly associates with, or figures as, eagles ${ }^{2}$. I have not room for examples, but compare especially
 the context shows that Pindar refers at once to Peleus and to himself.

W. M. L. Hutchinson.

[^147]
## THREE FRAGMENTS OF THE $\pi \epsilon \rho i \quad \tau \hat{\omega} \nu \quad{ }_{\epsilon} \nu$

## $\tau \bar{\eta}$＇E入入ádı $\pi o ́ \lambda \epsilon \omega \nu$ OF HERACLEIDES THE CRITIC

## FRAGMENT I



















5 каi $\sigma \chi 0 \lambda a i ̂ s ~ \tau а i ̂ s ~ \delta \eta \mu о \tau \iota к а i ̂ s ~ a ̀ \nu є \pi а i ́ \sigma \theta \eta \tau о \varsigma ~ \lambda i ́ \mu о v, ~ \lambda \eta \prime \theta \eta \nu ~ є ́ \mu \pi о \iota о v ́ \sigma a \iota s ~$






§ 1．2．$\tau \iota$ add．Stephanus．
5．MSS．à̉兀ウ́ ：corr．plerique editt．
7．MSS．$\mu$ éta：cor．Stephanus．
10．prop．Casaubonus катал $\lambda \eta \kappa \tau \iota \kappa \eta \nu \delta^{\prime}$ ．

4．MSS．àтобт $\theta_{\text {єí }}$ ：cor．Stephanus．
6．MSS．$\delta \delta \epsilon \bar{\eta}^{\eta} \nu$ ：cor．Hemsterhuys．
8．MSS．ámóßıov：cor．Gronovius．
13．MSS．є́ортаi tavtodatai：cor．
cor．Vulcanius．
5．MSS







 $\delta \rho \iota \mu \epsilon \hat{\imath}$ т $\hat{\omega} \nu \tau \epsilon \chi \nu \hat{\omega} \nu$ íкроатаì каi $\theta \epsilon a \tau а \grave{\imath} \sigma \nu \nu \epsilon \chi \epsilon i ̂ s$.





$$
\begin{align*}
& \epsilon i, \mu \eta ̀ ~ \tau \epsilon \theta \epsilon ́ a \sigma a \iota ~ \tau a ̀ s ~ ' A \theta \eta ́ \nu a s, \sigma \tau \epsilon ́ \lambda \epsilon \chi o s ~ \epsilon i \text {. } \tag{5}
\end{align*}
$$

$$
\begin{aligned}
& \text { тò } \delta \text { ' } \dot{\alpha} \lambda \iota a \kappa o ̀ \nu ~ \epsilon ै т \nu o s ~ \mu \epsilon ~ \mu а i ́ \nu \epsilon \sigma \theta a \iota ~ \pi о є i ̂ . ~
\end{aligned}
$$

$$
\begin{aligned}
& \dot{\alpha} \lambda \iota a \kappa o ̀ \nu \text { єìvaı } \sigma \tau \epsilon ́ \phi a \nu o \nu \text { єі̆ } \pi \eta \text {, } \pi \nu \text { ' } \gamma о \mu a \iota
\end{aligned}
$$

$\dot{a} т о к а \rho \tau \epsilon \rho \epsilon i ̂ \nu ~ \grave{\eta} \tau а \hat{v} \tau ’ \dot{a} \kappa о v ́ \omega \nu ~ \kappa а \rho \tau \epsilon \rho \epsilon \hat{\imath} \nu$.




 $\tau \epsilon \lambda \omega \nu \hat{\omega} \nu$ à $\nu \nu \pi \epsilon \epsilon \rho \beta \lambda \eta \tau 0 \varsigma \pi \lambda \epsilon о \nu \epsilon \xi i ́ a, ~ \grave{\epsilon} \kappa \pi о \lambda \lambda \hat{\omega} \nu \quad \chi \rho o ̛ \nu \omega \nu$ à $\nu \epsilon \pi \iota \theta \epsilon \in \tau \omega$ т $\hat{\eta}$


 oi $\sigma \tau i \chi o \iota$ छé $\nu \omega \nu o s$.
$\pi a ́ \nu \tau \epsilon \varsigma ~ \tau \epsilon \lambda \hat{\omega} \nu a \iota, \pi a ́ \nu \tau \epsilon \varsigma \epsilon i \sigma \iota \nu$ "̈ $\rho \pi a \gamma \epsilon \varsigma$. како̀̀ тє́خоя үє́voıто тоîs ' $\Omega \rho \omega \pi$ тioьs.




§ 4. 7. MSS. àkpoatai dià đàs $\sigma v \nu \epsilon \chi \epsilon i ̄ s:$ cor. Müller. § 5. 4. MSS. ó $\sigma \tau i \chi o s:$ cor. Kaibel. 8-16. corr. plures. §6. 1. MSS. $\delta a \delta a \phi \nu i \delta \partial ̀=$ cor. Wordsworth. 2. MSS. óסóv. $\quad$ á́vta: add. Müller: MSS. tantum $\pi \rho o ́ \sigma a \nu \tau a \quad \S 7.1$. MSS. Ө $\eta \beta \omega \bar{\nu}$ : cor. Müller: prop. Wordsworth $\sigma \kappa \iota \grave{a}$
 Wilhelm.








 тє каì фıлєруià.










 $\delta^{\prime}$ 'A $\begin{aligned} & \text { quaìo Boı Btoí. }\end{aligned}$






§ 13 каì iттот



 аб $\mu$ е́vov.







 Voss. §15. 3. тє add. Maller. MSS. тoís $\delta \grave{\epsilon} \dot{a} \theta \lambda$. : cor. Müller.


 $\pi o ́ \lambda \epsilon \iota ~ \chi \rho o ́ v o \nu, \mu \epsilon \tau$ où $\pi o \lambda \grave{v} \pi a \rho a \tau \eta \rho \eta \theta \epsilon i s ~ \nu \nu \kappa \tau o ̀ s ~ \dot{v} \pi o ̀ ~ \tau \hat{\omega} \nu ~ o u ̉ ~ \beta o v \lambda o-~$
 тap’ aùtoîs dıà tàs tuдovioas fivodtal aitias.













 $\beta a \rho \epsilon i a$.






 $\epsilon \xi$ єүори́бая).

Bo七штòv, äy









§ 17. 6. prop. Steph. oi $\theta$ vqтoì $\theta$ Eoús. § 20. 2. MSS. $\tau \hat{\omega} \nu \delta^{\prime} \dot{a} \nu \theta \rho \dot{\omega} \pi \omega \nu$. § 22. 5. MSS. є́ $\phi \dot{\eta} \mu \epsilon \rho \circ s:$ cor. Stephanus.
§ 18. 1. MSS. $\tilde{\omega} \sigma \pi \epsilon \rho:$ cor. Steph.
§ 21. 3. €ن́ótwoos prop. Graev. § 23. 4. MSS. ${ }^{2} \nu \in i \lambda \eta \mu \mu$.



 ó $\mu о \lambda o \gamma o v \mu \epsilon ́ \nu \omega \varsigma$ ．






 катєр $\frac{1}{\eta}$ ．ó бтí又оя Фєрєкра́тоия．

## 



 $\pi \eta \gamma a i ́ o s s ~ к а т a ́ \rho \rho и т o v . ~$




 то́入ı» катоцкой $\sigma \iota \nu$.

 $\tau a ̀ \varsigma \tau \hat{\omega} \nu \dot{\epsilon} \rho \gamma a \sigma \iota \hat{\omega} \nu \quad \chi \rho \epsilon \dot{a} a s$ à $\nu v \pi \epsilon \rho \beta \lambda \eta{ }^{\prime} \tau \omega \varsigma$.



 ${ }_{5}$ бтоaîৎ $\tau \rho \iota \sigma i$ б $\nu \nu \epsilon \iota \lambda \eta \mu \mu \epsilon ́ \nu \eta \nu$.
§ 30 бúvє $\gamma \gamma \boldsymbol{}$







 ○ó $\sigma$ тíXos ゆıдíкои．
 § 26．3．MSS．î̀ $\lambda$ cuov：cor．Holsten ：cf．Frag．2，§ 7，$̂$ î $\lambda \sigma o s . \quad$ § 27．5．MSS．


## FRAGMENT 2












 à $\boldsymbol{a} \iota \rho \in \hat{\imath} \tau \hat{\eta} \grave{\eta} \sigma \mu \mu \hat{\eta}$.















 $\theta \dot{a} \lambda a \sigma \sigma a \nu$.




 eival.





Muller. §5. 2. MSS. 入eiov: cor. Osann. 5. MSS. кata ádous.
 Diels. 3. MSS. חף入aias: cor. A. J. B. Wace. §8. 4. MSS. є̇ $\pi i$ : cor. Buttmann.
§ 10















 ßéß
 [vide Fragmentum III].

## FRAGMENT 3














10





 оікьбӨєîба тó入七я те каі Х'́pa.
§ 10. 3. MSS. ঠvviátis àvopuiovs.


Maptupєî $\delta$ è каì Eúpıтións. ..... § 3
    ..... 5







 aùtウ̀v єîvą.









$$
\text { § 7. 6. MSS. aủroū. §8. 4. MSS. } \sigma \tau o \mu i o v: \text { cor. Müller. }
$$

## INTRODUCTION TO THE FRAGMENTS

§ i. The credit for saving these fragments from oblivion belongs largely to Henricus Stephanus and C. Müller, the former of whom published the first edition with brilliant emendations in 1589 , while the latter included them in his Fragmenta Historicorum Graecorum, vol. in. (1848) ${ }^{1}$ and his Geographi Graeci Minores, vol. I. (I855) ${ }^{2}$. There are several editions between Stephanus

[^148]and Müller, but the first editor and the last are alone in separating the fragments from those of a metrical Description of Greece by Dionysius son of Calliphon, which has certainly nothing to do with them, but to which, as will be seen later, we owe the preservation of Fragments i and 3. The following is I think a fairly complete list of the Editions.

1. Stephanus. Fragments I and 3. 1589. Paris.
2. Hoeschel (Fragments I and 3), in his Geographi Graeci Minores. 1600.
3. Gronovius (Fragments I and 3), in his Thesaurus Antiquitatum Graecorum, vol. xi. 1699.
4. Hudson (Fragments 1, 2, and 3) in his Geographi Graeci Minores, vol. II. together with Dodwell's very wordy dissertation. Oxford, I7O3.
5. Zosimades fratres, in their Geographi Graeci Minores, vol. i. i 806.
6. G. Manzi. I 8 I 9.
7. D. Celidoneo Errante. 1822.
8. Gail. In his Geographi Graeci Minores, vol. II. I 828 .
9. Fuhr. 184 I .

Io. Müller (C.) in the two volumes above mentioned.
Of the editions other than those of Stephanus and Müller, Hoeschel's and Gronovius' are of comparatively small value, since they do little but reproduce Stephanus' work. Hudson was the first to include Fragment 2, which was sent him by Fabricius. Those of the Zosimades, Manzi, and Errante are merely copies, and often bad ones, of Hudson, and Gail and Fuhr cannot be said to have rendered much help either in emending and elucidating the text or establishing the real identity of the author. Since Müller, the Fragments have, as far as I know, never been edited, although a portion of Fragment I is printed with emendations by Kaibel in the Strena Helbigiana.

A considerable number of references, however, both direct and indirect, have been made to them in German philological reviews, \&c. in the last thirty years, and Unger and E. Fabricius have definitely enquired into their date and authorship, not, however, with the same results. It is on the inquiry of Fabricius that my own investigations and, largely, my opinions are based.

Finally I have to thank Prof. Diels for introducing me to the fragments, and Sir J. E. Sandys, Litt.D., for very kindly reading and improving my MS.
§ 2. The only important manuscripts of the Fragment now extant are five in number. Three of them contain, amid the fragments of other geographers, Fragments i and 3; two contain Fragment 2. The five MSS. are
I. Parisinus 443 , Supplement. xir century.
2. Palatinus 142. xv century.
3. Monacensis 566 . xvi century.
4. Parisinus 57I. xv century.
5. Gudianus.

No. I contains Fragments i and 3; No. 2 Fragments I and 3 ; No. 3 Fragment I down to $\dot{\alpha} \mu \alpha \xi^{\prime} \dot{\lambda} \lambda a \tau o s \delta^{i} \dot{\alpha} \gamma \rho \bar{\omega} \nu$, §23,1.2; No. 4 Fragment 2 ; No. 5 is said to have contained Fragment 2, but more will be said about this later. A word about the history of one of these MSS. may be interesting, as its vicissitudes are probably those of a large number of known-and unknown-manuscripts. The most important is Parisinus 443, Supp., which will be referred to as $P$. It is assigned to the twelfth century ${ }^{1}$ and was undoubtedly the source of MSS. 2 and 3 , since they have the same lacunae and order, and largely the same excellences and defects as $P$. The question of P's relationship with MSS. 4 and 5 will be considered later. P was almost certainly written in the east, its origin being betrayed by various transcriptional peculiarities, largely

[^149]itacistic. It found its way in the course of time to Italy, where Matthieu Budé saw it in the middle of the sixteenth century. He copied from it the fragment of Heracleides (i.e. I and 3) together with the metrical $\dot{\nu} \nu \alpha \gamma_{\rho} \alpha_{\dot{n}} \tau \hat{n} s$ 'Eג入ádos by Dionysius the son of Calliphon, in the midst of which they occur, and the fragments of Scylax' Periplus. He sent his copy to Henri Estienne (H. Stephanus), the centre of the scholastic world at that time. Stephanus did not publish the fragment at once because, as he himself says, he was given to hope that more fragments might be found, and that satisfactory restorations of the text might be effected. Finally, however, he did publish them, and in a most delightful form, small portions of the text being prefixed and followed by his own shrewd comments, criticisms, and emendations. A sure proof of his acumen is the fact, mentioned above, that he printed the fragments of the metrical Description of Greece by Dionysius Calliphontis ${ }^{1}$ after those of Heracleides (or, as he was forced reluctantly to believe, Dicaearchus), in which course he was, however, not followed by the succeeding editors. How much he thought of the fragments may be seen by his own enthusiastic appreciation of them, and from the fact that they stimulated him to the composition of a remarkable dialogue on Greek manners and customs.

Somewhere between the years 1589 and 1600 P was seen in France and copied by Scaliger. This copy is now in the Bodleian library. $P$ was at that time in the possession of the connoisseur, Claude Dupuy. On his death early in the seventeenth century it passed into the Pithou family and did not reappear until 1837 . In this year an auction was held of the goods of the Duchesse de Berry, and some 'books \&c.' belonging to the family Lepelletier -kinsmen of the Pithous, were put up for sale at the same time. Among these 'books \&c.' P was found and promptly bought for the Paris Royal Library, where it now is.

Of the other MSS., Nos. 2 and 3, Palatinus 142 and Monacensis 566 , are, neither of them, earlier than the fifteenth century. Their importance for the establishment of the text is practically nil, except in so far as they corroborate P . They are both, in many instances, inferior to P . Nos. 4 and 5, i.e. Parisinus 571 and Gudianus, are the sole sources of Frag. 2. Of these Par. 571 is not earlier than the fifteenth century and Gud. is only known from the letter of Fabricius to Hudson, in which he says he copied Frag. 2 'ex codice regio Gudiano.' It may be identical with the Codex Altempsianus, in which Holsten says (1628) he read the fragments of another Geographer, usually found in company with Heracleides, Isidorus Characenus. All traces of it, however, have since been lost.
§ 3. The MSS. having been described, it remains to state their relative importance. Of the first group, i.e. MSS. Nos. 1, 2, and 3, the tradition represented by P , if not P itself, is undoubtedly the source of Nos. 2 and 3. The order, lacunae, and readings are practically the same in each, and P is admittedly two centuries older than the other two. Of the second group, i.e. Nos. 4 and 5 , Gudianus may perhaps be a copy of Parisinus 571 , and both probably come from the hypothetical Porphyrogenitus original ${ }^{1}$ which was also the source of P . The position of the fragments in the various MSS. is as follows In P the Fragments 1 and 3 are placed, without any interval either between themselves or between them and their surroundings, amid a metrical $\dot{\alpha} \nu \alpha \gamma \rho \alpha \phi \grave{\eta} ~ \tau \hat{\eta} s$ 'E入入áóos previously attributed to Dicaearchus but proved by Lehrs to be by a certain Dionysius, son of Calliphon. Lehrs discovered (c. 1840) that the first 23 lines of this poem began with letters which, read downwards, gave the author's name : i.e. $\Delta \iota o v u ́ \sigma \iota o s ~ \tau o \hat{u} \mathrm{~K} a \lambda \lambda \iota \phi \hat{\omega} \nu \tau o s$. At the end of the whole come the words $\Delta$ ккана́ $\rho \chi o v \dot{\alpha} \nu a \gamma \rho \alpha ф \dot{\eta}$ $\tau \hat{\eta} s$ 'Endádos. A few pages before, however, is a title

[^150]standing quite by itself, with no reference to anything immediately near it. The title is as follows: 'A $\theta \eta v a i o v$
 $\delta \delta o i$ this is probably a 'scribe's description' of our fragments, i.e. I and 3 ; while $\pi \epsilon \rho i \pi \lambda o u s$ may be a reference to the metrical avarpaфin. The description of the civaroa申n as $\Delta \iota \kappa \alpha \iota \alpha \rho \chi o v$ is probably also another 'scribe's description.' He was misled by the dedication of the poem to Theophrastus, whom he identified with the disciple and successor of Aristotle and the friend of Dicaearchus. That Dicaearchus cannot, on chronological grounds, be the author of either the prose fragments or of the metrical $\alpha \nu \alpha \gamma \rho a \phi \eta^{\prime}$, has been shewn by Letronne and Müller. However, these 'scribe's descriptions' were productive of a misunderstanding which existed until the early days of the nineteenth century, although men like Stephanus had their doubts. It is probable that the originator of the tradition represented by $P$ had a gap in his metrical ávarpaф́n-which he believed to be by Dicaearchus-and filled it up by two handy excerpts of Heracleides. A parallel to this proceeding may be found in the insertion of verses assigned to Scymnus of Chios into an anonymous ' Periplus Ponti Euxini ${ }^{1}$.'

In Palatinus and Monacensis the 'scribe's title' has asserted itself and now appears at the beginning of the civarpaф', while another scribe has added the words ' $\pi \rho o ̀ s ~ Ө є о ́ \phi \rho \alpha \sigma \tau о \nu . '$

Frag. 2 follows immediately upon excerpts from Strabo in Parisinus 571, there being again no interval separating it therefrom; while as to its position in Gudianus, nothing is known, the MS. being now lost.

Now it is practically certain that Paris. 571 and Gudianus, the two authorities for Frag. 2, are descended from the same tradition as that which is responsible for P. The evidence is as follows: Frag. 2 has appended

[^151]to it the beginning of Frag. 3, i.e. òtı $\dot{\eta} \mu \epsilon ̀ \nu$ ' $\mathrm{E} \lambda \lambda \alpha$ 's... $\tau$ ò $\pi \alpha \lambda \alpha \iota \dot{o} \nu o \dot{u} \sigma \alpha$, the first two or three words being slightly altered. Now P, the source of Frag. 3, has a remarkable instance of 'loss by similarity of ending.' It reads $\mu \epsilon ́ \chi \rho \iota$ $\tau o \hat{u} \mathbf{M} \alpha \gamma \nu \eta \dot{\tau} \omega \nu \sigma \tau \alpha ́ \mu \pi o u^{1}$, whereas we see from $\$ 8$ of the same fragment that the real reading is $\mu \epsilon \in \chi \rho \iota \tau o \hat{u}$
 scribe's eye having wandered from the $-\omega \nu$ of Mayvít $\omega \nu$ to that of $\Theta \epsilon \tau \tau \alpha \lambda \bar{\omega}$. Parisinus 571, in its version of the beginning of Frag. 3, also has this error. We may therefore safely conclude that the traditions responsible for P and the MSS. of Frag. 2 are identical.

Whence came this tradition? Almost undoubtedly from the collection of Greek geographers, prosaic and poetical, made by order of Constantine Porphyrogenitus, 91I-959 A.D. This emperor, besides writing a great many large and important works on Government, Tactics, Ceremonials, \&c., caused large collections of excerpts to be made from the works of the lesser known Greek authors. One of these collections of excerpts was the 'Collectanea et Excerpta Historico-Politica et Moralia,' and in one of its many volumes-there were at least 50our fragments probably had their place. Thus we may say that P is the oldest MS. we possess representing the tradition of the text of the minor Greek geographers as handed down by the excerptors whom Porphyrogenitus entrusted with the work. It is not certain that MSS. 2 and 3 are copies of P , and it is quite possible that Nos. 4 and 5 are independent of P and of each other.
§ 4. So much then for the sources of the text, and the traditional authorship. The next two questions, which must be considered together, are, how do we know that all three fragments are by the same author, and who is that author? In Apollonius ${ }^{2}$, a writer of about the beginning of the second century b.c., we read ('I $\sigma \tau o \rho \iota \alpha \iota ~ \Theta \alpha \nu \mu a ́ \sigma \iota \alpha \iota, ~ c . ~ 19) ~ o f ~ a ~ p l a n t ~ w h o s e ~ v i r t u e ~ i s ~ t o ~$

[^152]keep out excessive cold and heat from the human body. Now, this description is given in almost exactly the same words as that in Frag. 2 of the famous калтòs $\dot{\alpha} \kappa \dot{\alpha} \nu \theta \eta \mathrm{s}$ that grew on Mt Pelium. The two accounts are as follows:













It seems certain that our fragment is the original source from which Apollonius drew his information. Now Apollonius says his authority is a work of Hera-
 $\pi \dot{o} \lambda \epsilon \omega \nu$. . This title is curious as that of a work in which such information could be found and is thereby the more to be regarded as correct. It may be noticed incidentally that in Frag. 2, as we have it, Pelium is evidently described because it is near to the city of Demetrias (cf. Frag. 2, § i, $\tau \hat{\eta} s$ $\pi o ́ \lambda \epsilon \omega s . . . \dot{a} \pi \epsilon \chi \chi$ and § 12 end, тò $\mu \hat{̀} \nu$ oû̀ Пî入lov каi тì̀ $\Delta \eta \mu \eta \tau \rho \iota a ́ o \alpha$, as well as the allusions to mo八ítat, evidently those of
 although it does not at first sight seem particularly suitable for Frag. 2, does suit most excellently Frags. I and 3, since $I$ is certainly a description of cities in Greece and 3 is a definition of the term 'Hellas,' a necessary preface or conclusion to such a work.

To clinch the proof that the fragments are all part of the same work we have the fact that the end of Frag. 2
is, exactly, even with its faults ${ }^{1}$, the beginning of Frag. 3.

Thus we may say that these three fragments are separate excerpts of a work by Heracleides Criticus, entitled $\pi \epsilon \rho i \quad \tau \hat{\omega} \nu \dot{\epsilon} \nu \tau \hat{\eta}$ ' $\mathrm{E} \lambda \lambda \alpha \alpha^{\prime} \delta \iota o ́ \lambda \epsilon \omega \nu$, and were probably excerpted, with others now lost, in the days of Constantine Porphyrogenitus. Excerpts i and 3 have been preserved because they happened to fill a gap in a worthless ' Description of Greece' wrongly attributed to Dicaearchus, and 2 has survived because of the appeal made by its description of the magic herbs on Mt Pelium.
§5. The enquiry into the authorship of the fragments being now concluded, it remains to establish the date of the author. The task is difficult. The chief 'landmarks' are the following.
I. The date of the Apollonius ${ }^{2}$ who quotes Heracleides.
2. The mention of $\gamma \nu \mu \nu a ́ \sigma \iota \alpha \quad \tau \rho^{\prime} \alpha \quad$ (Fragment I , § $1, \mathrm{II}-\mathrm{I} 4$ ).
3. The dates of the poets quoted by Heracleides.
4. The mention of the difficulties of litigation in Thebes: Fragment i, § 16.
5. The condition of some of the other cities as described by Heracleides.
6. The mention of Demetrias, Fragment 2, § 12, and, in addition to these,
7. The general character, tone, and style of the work.

We must now proceed to discuss each of these individually.

1. The date of Apollonius rests practically entirely

[^153]upon the authorities whom he quotes-or does not quote. The list of these is as follows: Theopompus, Aristotle, Habron, Phylarchus, Scymnus Chius, Theophrastus, Ctesias, Heracleides, Eudoxus Rhodius, Aristoxenus Musicus, Sotacus, and Eudoxus Cnidius. Of these Ctesias, Aristotle, Theopompus, and Theophrastus are fourth century. Habron (Meineke's emendation of the MS. 'A $\nu \delta \rho \omega \nu$ ) is unknown, but was probably, to judge from the title of
 century. With regard to Phylarchus, we know from Suïdas that he recorded the death of Cleomenes, which took place in 220 b.c.: he may therefore be ascribed to the end of the third century. Scymnus of Chios was, we know from an inscription ${ }^{1}$, a proxenus at Delphi in the year i85/4. Eudoxus of Rhodes is now placed between 280 and 250 b.c. Aristoxenus was a pupil of Aristotle and schoolfellow of Theophrastus, whom he afterwards attacked: while Eudoxus of Cnidus was a contemporary of Plato. The only authority about whom definite information of any kind is lacking is Sotacus, the author of a book $\pi f \rho i \lambda i \theta \omega \nu$. Even here, however, we have a hint that he was certainly not late, as Pliny the Elder (N. H. 36. I46) refers to him as vetustissimus auctor.

Attention has also been drawn to the fact that Apollonius does not quote the $\theta a u \mu \dot{c} \sigma \iota a$ of Callimachus. As, however, he quotes Phylarchus, who certainly wrote after Callimachus' death (c. 240 в.c.), this is not important.

Finally, it is highly probable that Apollonius is a product of the same movement which produced Antigonus of Carystus, the Paradoxograph, and several other writers in the same vein. This movement may be dated roughly as between the middle of the third and the middle of the second century.

Hence, on all grounds, we are justified in assuming that Apollonius wrote early in the second century b.c.


[^154]interesting enquiry. Heracleides says that among the sights of Athens are the three Gymnasia, the Academy, Lyceum, and Cynosarges, and his description of them is charming. E. Fabricius has observed that it is almost certain that Ptolemy Philadelphus-ob. 247 B.c.-built a fourth gymnasium, which Heracleides, however, does not mention. He would therefore conclude that Heracleides wrote before the gymnasium had reached any degree of completeness, i.e. c. 250 b.c. at latest. As he points out, Heracleides mentions the half-finished Olympieum, and it is probable that he would have mentioned the gymnasium of Ptolemy, even though incomplete. It may be observed here that Wachsmuth ${ }^{1}$ is inclined, by a reference of Philochorus to the gymnasium in question, to place its completion before the Chremonidean war, i.e. before 265 в.c.

It does not seem, however, that this 'argumentum ex silentio' is really of much weight. It must be borne in mind that Heracleides is mentioning only those things famous for their remarkable structure and for their associations. He is no Pausanias. He may quite well, even if he had seen it, have passed it over, particularly as he is not inclined to court flattery.

More conclusive is the other argument founded upon the mention of the gymnasia. Heracleides describes
 $\pi \alpha \nu \tau 0 \theta a \lambda \epsilon i s$ фiл ever, from Livy 3I. 24 and 26, that in the year 200 b.c. Philip V of Macedon took Athens and burnt part of the town, and that the three gymnasia suffered considerable damage: 'sed et Cynosarges et Lyceum...incensum est.' Diodorus Siculus, ch. 28, Fragment 7, amplifies this:

 Heracleides wrote before 200 b.c.
3. The poets quoted by Heracleides are as follows: Lysippus, Xenon, Poseidippus, Laon, Pherecrates, and

[^155]Philiscus, as well as Homer, Sophocles, and Euripides. Of these, Lysippus and Pherecrates are fifth century. About Xenon and Laon practically nothing is known. Philiscus seems to have written c. 370 b.c.

About Poseidippus, however, our information is ampler and particularly useful in determining the limit earlier than which Heracleides' date cannot be fixed. We know from Suïdas that he produced his first play three years after Menander's death-i.e. in 286/5. Assuming, therefore, as is probably justifiable, that Heracleides would hardly quote from an author's works unless that author was already established as of the first class, we may safely say that Heracleides cannot have written before 270 b.c.
4. Heracleides draws, in $\S$ i6 of Fragment I , a very vivid and grim picture of the state of litigation in Thebes in his time. To this description there is a very remarkable parallel-or rather sequel-in Polybius, bk. xx. 6, § I ff. and bk. xxiri. 2, § 2 (xxir. 4). Polybius says that cases are met with in Thebes 25 years old and still unheard, and gives a picture of a state of things very similar indeed to that described by Heracleides. However there is no ground for concluding, as Unger does ${ }^{1}$, that both pictures are of the same date. Rather may we say with E. Fabricius that a state of things which Heracleides found mainly confined to Thebes had by Polybius' time extended over the whole of Boeotia, to which Polybius' account certainly applies.
5. Some light is thrown on the date of the fragments by the descriptions Heracleides gives us of other towns besides Athens and Thebes, which have already been dealt with. With regard to Oropus, it is very difficult to form any fixed conclusion from the fact that when Heracleides wrote Oropus belonged to Boeotia (cf. Fragment 1, $\S 25,1.4$ ). The possession of this much disputed and important territory fluctuated between Athens and Thebes for centuries. Pausanias tells us (1.34) that Philip gave

[^156]it to Athens after the destruction of Thebes. His words




 Atticae,' and Pliny says ( 4.7, I I) 'Oropus...in confinio Boeotiae ${ }^{1}$.' Haliartus, mentioned by Heracleides in Fragment i, § 25,l. 7 , was destroyed in 171 b.c. (Livy 42. 63) and never rebuilt ; but as we have already seen that the date of the fragments cannot be later than 200 b.c., this does not add to, but rather confirms our previous conclusions. Still more confirmation of the year 200 b.c. as a date after which the fragments cannot have been written is given us by the description of Chalcis. This description is perhaps the most charming of them all. Now we know from Livy that, during the disturbances in 200 b.c., when rival parties held the town against each other, a fire broke out and the beautiful city became a smouldering ruin ${ }^{2}$. Livy speaks of the 'deforme spectaculum semirutae ac fumantis urbis.' Moreover the words in Fragment I, § 30,
 ' long subjection' of Chalcis to Macedon, which began in $33^{8}$ b.c. and lasted until 197, when the Romans declared the town free. It was one of the three 'fetters of Greece,' Demetrias, Chalcis, and Corinth, a firm hold on which was one of the first objects of Macedonian policy.
6. Demetrias, mentioned in Fragment 2, was founded c. 297 b.c. by Demetrius Poliorcetes; and thus the earliest limit fixed by the quotation from Poseidippus is verified.
7. Perhaps the most powerful argument which should induce us to date Heracleides as early as possible

[^157]without directly exceeding any of the limits established above, is the general tone and character of his work. Surely he wrote at a time not very far removed from those of Theophrastus and Menander, whose goodhumoured but shrewd character-descriptions are so characteristic of the Greek life and thought of the late fourth and early third centuries ${ }^{1}$. The age which produced Bion the Borysthenite and Menippus of Gadara and the Cynic School, and the itinerant lecturers on 'morality' and developed cosmopolitanism, is surely the atmosphere into which these fragments seem to carry us. The conclusion then to which an examination of the fragments leads us is that they were written, certainly between 270 and 200 b.c., and probably nearer the former than the latter date.
§ 6. Two minor questions with regard to the fragments still remain to be answered. Firstly, what was Heracleides' object in writing the ' $\pi \epsilon \rho i$ ' $\tau \hat{\omega} \nu$ '̇v $\tau \hat{\eta}$ ' $E \lambda \lambda \alpha \alpha^{\circ} \sigma$ $\pi o ́ \lambda \epsilon \omega \nu$ '? To this we may answer that it was simply to express what he had seen, thought, and experienced on a journey prompted largely by curiosity : and that, as is clear from several observations on the excellence or poorness of certain towns as pleasure or health resorts, he intended his book to be of use to those who came after him.

Secondly, what is the precise meaning of the term 'Criticus' which is obviously a nickname applied to him either by his contemporaries or by the next generation? Possibly it refers to his careful style, the word крıтєкós occurring as early as Plato in its narrower sense of 'linguistically critical'; but it may be that he received the nickname because of the shrewdness and, sometimes, slightly malicious character, of his judgments.

W. H. Duke.

[^158]
## NOTES ON IRANIAN ETHNOGRAPHY

The antiquity and early history of the Avesta supply us with a problem to which scholarship will never perhaps be able to give a final answer. In writing my Hibbert Lectures on Early Zoroastrianism, now passing through the press, I have become increasingly convinced that the ethnographer holds the key to some of the most notorious difficulties of the question. If the speculations that follow have any appropriateness as a contribution to this Miscellany, it will be because the first suggestion of them came to my mind from some very stimulating talks with Professor Ridgeway. All my fellow contributors would agree that I have used a 'fixed epithet' in describing those talks, now, alas! to be dated nearly a dozen years back. They will understand also that the suggestiveness of them reached beyond the range of anything we immediately discussed at the time, so that while I cannot make him directly responsible for ideas which have developed in very different ways since they started, I still feel that they would not have reached me apart from him. I am only afraid, writing as I am under conditions of exceptional haste and pressure, lest readers should think I have paid a great scholar a doubtful compliment in crediting him even to this moderate extent with the genesis of my guesses ${ }^{1}$.

[^159]My first question is, Who were the Magi? Here I shall only put into a few sentences a summary of results from my Early Zoroastrianism, Lectures VI and VII, referring for my proof to the long and detailed discussion to be found there. I take them to have been aboriginal shamans, racially unconnected with any people to which either Semitic or Indo-Germanic speech was native. There are many testimonies from classical writers showing that they were regarded as distinct from the Persians, even in an age when no Persian religious rite could be performed without them. Herodotus expressly noted their strange manner of disposing of their dead, which differed entirely from that practised by the Persians. We find it paralleled only among tribes of very low culture, which even if they had learned to speak Iranian dialects had certainly no affinity with Aryan races. With this practice, which of course survives in the 'Towers of Silence' in Bombay, Greek writers regularly coupled another as characteristic of the Magi alone. The extraordinary religious merit of marriages which the modern Parsis abhor as incestuous, no less whole-heartedly than we should ourselves, was a tenet of the Magi which in the Sassanian age the priests strove ineffectually to impose upon Zoroastrian orthodoxy: their descendants to-day as vainly strive to repudiate the evidence that such a practice ever existed. Less conspicuous but still important peculiarities of the Magi were their skill in divination and oneiromancy and astrology-all of which are conspicuously absent from the Avesta. So is magic, which actually borrowed their name-a name, by the way, that only occurs once in the Avesta, in a passage unmistakably late. These and other features of their religion seem to prove the Magi essentially alien from Aryan habits of thought. Two other characteristics of what can be shown to be Magian strata in the religion, which have been rather strangely overlooked in this connexion, prove, I believe, that the Magi were as little Semitic as they were Aryan. Plutarch tells us,
with support from the Bundahish, that all mountains are to be smoothed out in the regenerated world. And the Pahlavi books have much to say of the malign influence of the planets, which are set as special Ahrimanian antagonists to the chief of the fixed stars. But their names are still those of the heavenly beings, including Ormazd himself; while a suspiciously makeshift arrangement is brought in to save the sun and moon from being of their company. Now the sacredness of mountains is obvious enough in the Semitic world, nor is it less marked alike in the Avesta and in the religion of Persia as described by Herodotus. The planets were specially venerated in Babylon, and the names they bore in the Magian system itself are the representatives of those Babylonian names which the Greeks and the Romans and we ourselves have taken from the same source: thus Marduk is the origin of Zeus and Jupiter and Ziu and Ormazd alike ${ }^{1}$. It seems reasonable to conjecture that the borrowing of the Babylonian planet-names was altogether independent of the Magian doctrine of planetary malignity. We have no hint of this doctrine in the Avesta: Anāhita comes down from 'those stars' $\left(Y_{t} 5^{85}\right)$, but while she is not specially linked with one star, neither is she or any other divinity set in opposition to planets. Greek thought never conceived planets as such to be evil powers-witness for example the history of 'sweet Hesper-Phosphor,' as gathered up in the concentrated loveliness of Plato's 'Aster' epitaph. The astrological mischief-making of Mars and Saturn would not fall into line with the doctrine, even if it were early enough, for Venus and Jupiter are in the Magian system tarred with the same brush ${ }^{2}$. We must assume that both planets and mountains offended the Magian mind because they violated symmetry. The perfect world for them was like Babylonia before the days

[^160]of Babel, but with a needed reform introduced into the skies. The sun must abide in the zenith by day so that men might have no shadows-unless indeed his rays were to be endowed with something beyond the Röntgen penetrativeness. And when he vanished somehow for the night-I suppose we must assume there would be night, as otherwise the beneficent fixed stars would be invisiblethe heavens must not be disturbed by wandering irregulars like Venus and Jupiter. It will be admitted that the Magi were original, if Plutarch's picture is true to life: as Herodotus observes, Máyoı кє $\chi \omega \rho i ́ \delta a \tau \alpha \iota \pi o \lambda \lambda o ̀ \nu \tau \bar{\omega} \nu$ $\alpha{ }^{\alpha} \lambda \lambda \omega \nu \dot{\alpha} \nu \theta \rho \omega \dot{\sigma} \pi \omega \nu$. Is there not a presumption that they were by birth a peculiar people?

I pass on to the Iranians proper, and to some questions which I have not discussed in the book referred to. We start from the obvious consideration that Iranian speech does not imply any racial unity. Many wild tribes of undoubtedly Iranian language are marked as aboriginal by their customs and beliefs. No one questions that the Indian form of Aryan speech was imposed upon a variety of aboriginal tribes by victorious invaders ; and we must recognise the same phenomenon in the northern half of the Aryan-speaking territory. The nature of proto-Aryan language can be easily and certainly defined. The great eastward trek began before East Indo-Germanic and West had materially differentiated, except for the important cleavage concerning the gutturals, which gives us our classification of satzm and centum dialects. In this cleavage we may note with Hirt that the Western $k$ and $q^{u}$ were original, but the sibilant and delabialising infections very old-older, Hirt says, than ablaut (Die Indogermanen, 96, 580). We can reconstruct the Indo-Iranian or Aryan Ursprache with more confidence than can be felt in any other such operations on the prehistoric. The coincidences of Vedic and Avestan vocabulary, extending even to phrases and compound words, enable us to delineate the Aryan culture with great fullness. It may be safely assumed-as
we shall see presently-that the family remained undivided to a relatively late date. But as we look at the map and try to determine the line of migration, we are faced with some perplexities. Sanskrit confessedly retains important phonetic peculiarities which belonged to the IndoGermanic parent speech; but those who spoke it must on the now universally held theory be assumed to have come through an extensive area in which these peculiarities have vanished altogether. North and west of the Indo-Aryan settlements there is a solid barrier of Iranian. The Scyths, Sauromatae and Ossetes represent Iran west of the Caspian: the Sacae, Massagetae and Sogdians seem to show how the migration proceeded eastward past the north end of the great lake ${ }^{1}$. South of this broad band of country, which stretches from $25^{\circ}$ to $75^{\circ} \mathrm{E}$., there is another region, still more decisively Iranian, reaching up to the Persian Gulf and the south end of the Caspian, with the whole mass of Semitic territory beyond to the south, and a chain of satzm peoples who show as little as Iranian dialects do the primitive features preserved in Sanskrit. The satam region in fact covers everything east of a line drawn from the east of the Baltic to the head of the Adriatic, except for two overflows that will be noted later. How did the Indian tribes preserve the primitive medial aspirates, when over the whole of the immense satom area these sounds were fused with the medial? The belated advocate of the old Asiatic Urbeimat might see his opportunity. But then we note that three of the centum dialects, on the other side of the mighty barrier, maintain the distinction still. Our task therefore is to explain how Sanskrit and its descendants show such a deep-seated unity with the Iranian, and yet keep up a most important feature of proethnic Indo-Germanic unimpaired, which elsewhere only survives in the languages of the far west.

[^161]Before we go further, let us observe how marked was the resisting medium through which the Indo-Aryans passed without losing their phonetic inheritance. They preserved the difficult medial aspirates unchanged; and whether they came from the Baltic by the northern route through the territory of Slavonic and the closely related Iranian, or by the southern through Albanian, Thraco-Phrygian, Armenian and Iranian, in either case the peoples they passed made no distinction between $b$ h, $d h, g h$ and $b, d, g$. But among Iranians there was the further change of initial and intervocalic $s$ to $h$, not to mention other less conspicuous phonetic differences which make a very real cleavage between languages far more closely related than any other pair of distinct language groups in the Indo-Germanic family.

We may pursue the complications of our problem before we attempt any resolution. Recent evidence of a rather startling nature has come to prove how late the characteristic Iranian differentiation arose in the only Iranian language that we can study from ample materials. Hommel has given us a tablet from the library of Assur-
 of Darius and the Avesta had thus been borrowed by Semites before the seventh century b.c., and his name has a form older than the Gathas show us, which must take the date of borrowing well into the second millennium. For the two s sounds of the Aryan Asura Mazdhàs remain, as in Sanskrit; while the survival of $z$ and the disappearance of the medial aspirate agree with Iranian. The evidence clearly might be interpreted as showing that the Aryan dialect was still undivided when the name passed into Semitic ${ }^{2}$. The same inference has been drawn, by E. Meyer and others, from Winckler's sensational but tantalising discovery of Mitra and Varuṇa,

[^162]united as in the Veda, Indra and the Nāsatyāu, in a Mitanni inscription of the fourteenth century from Boghaz-keui in Cappadocia ${ }^{1}$. Here there are no Iranian marks whatever ; and the names seem to be pure Sanskrit, unless they are Aryan. The date is surprising enough for the latter, but the difficulties of the former seem at first sight insuperable. We take another look at the map. Between $50^{\circ}$ and $70^{\circ} \mathrm{E}$. and north of $30^{\circ} \mathrm{N}$. we have solidly Iranian territory. East of $70^{\circ} \mathrm{E}$. the Iranian and the Indian meet at about $35^{\circ} \mathrm{N}$. In the west of this area Iran overflows southwards to the sea ; and it reaches its limits with Media. Assyria and Armenia formed a continuous wall against further progress, though the Kurds in ancient and modern times have done their savage best to break down the part of the wall that confronts them. But there is Boghaz-keui away in Cappadocia, right on the other side! Must we simply rule out that strangely isolated phenomenon till Winckler's master-hand can deal with the material that is spoiling for an interpreter ?

There is one further datum, scarcely as reliable as even the last, which might lend colour to the supposition that there was an ebb tide of migration out of India through Iran to the N.W. The astral and meteorological significance of the Tishtrya Yasht raises difficulties for the mere statement of which I must refer to my book. I may however repeat here that the data, in the eyes of such expert astronomers as Mr and Mrs E. W. Maunder of Greenwich, suggest the breaking of the monsoon, and therefore north-west India. Moreover it is only south of the thirtieth parallel that the four Regent stars (best taken as Sirius, Fomalhaut, Vega and the Great Bear) were sufficiently high above the horizon to be seen dominating the four quarters of the sky when Sirius was rising. It seems most natural to attach the imagery of the Yasht to the heliacal rising of Sirius, when the beneficent yazata

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## J. H. MOULTON

emerges victorious from his conflict with the drought demon. But Mr Maunder tells me that in Iran this rising of Sirius took place in the driest part of the year. He further urges that 'the movements of Tishtrya as described in the Yasht and the Bundahish find their astronomical analogy in the movements of the sun and of no other celestial body,' so that to this extent he considers Tishtrya as representing the sun. I cannot persuade myself, in view of the literary evidence, to follow Mr Maunder in this daring course. But the climatic conditions of Iran at the time of the heliacal rising of Sirius tempt me strongly to suppose the myth originating in north-west India and surviving a migration into southern Iran. However, to Boghaz-keui is a far cry ; and lest I lose any reputation for sobriety I may possess, I hasten to plead that I only mention such speculations as some politicians have used statistics, 'for the sake of illustration'!

I return then to the questions suggested by the geographical distribution of Indo-Germanic tribes in the earliest times of which we know. I have already sketched the satam country. Over its frontier two centum tribes were found in antiquity, the wandering Goths and the Greeks. The latter of these were immigrants, according to their own legends, at least as far as the Achaians of Homer and the later Dorians are concerned. Apart from these slight exceptions, an immense extent of fairly homogeneous dialect-area separates Sanskrit from the centum languages, with which it shares striking peculiarities wholly absent from all the other satam tongues. We have been accustomed to think Vedic and Avestan very closely alike in their treatment of the proethnic palatals. But Avestan is perfectly symmetrical: $\hat{k}$ and $\hat{k} h$ become $s, \hat{\delta}$ and $\hat{g} h$ become $z$, the $j$ being reserved like $c$ for velars fol-
 which was probably a simple $s / 2$ sound: the two Aryan dialects here differ much as Lithuanian $s z$ differed from Slavonic s. But Sanskrit never shows $\dot{z}$ for $\hat{g}$, or $\dot{2} / h, s / h$ for
$\hat{g} h$ and $\hat{k} h$. The $j$ which represents $\hat{\xi}$ is something other than a pure sibilant, and is identical with the sound of a velar palatalised by the influence of the following vowel. And $h$, to which $\hat{g} h$ has come, is of course no sibilant at all. Of $c h$, which represents both $\hat{k} h$ and the palatalised $q h$, we can say the same as of $j$. For this unsymmetrical treatment there seems to be no parallel except in Germanic. There, when Grimm's law began to act, $\hat{k}$ became $h$, while $\hat{g}$ and $\hat{g} h$ remained guttural, as they did in Sanskrit-for there $j$ and $h$ were regular representatives of velars as well. We may fairly assume that the Germanic $h$ was at first a strong $c h$ sound, whether as in Nacht or as in nicht. This may even have been the original pronunciation of $\hat{k}$ in East Indo-Germanic, for a sh sound comes out of it easily: cf. the south German pronunciation of nicht as nisht. Now of course Grimm's law, in its first period (say 800 to 100 b.c.), left $g$ a guttural stop, while changing $k$ to a spirant. We must postulate a $\gamma$ stage between $g / 2$ and $g$. Sanskrit may fairly be said to agree here, for neither $j$ nor $h$ is a sibilant, and the very fact that they represent velar $g$ and $g h$ before narrow vowels shows that their guttural character was not lost. As to $g h$, the proto-Germanic $\gamma$ comes very near the Sanskrit $h$. This recognition of affinity does not involve throwing the Lautverschiebung as a whole back to the period of the postulated migration, though on one reading of the Boghaz-keui evidence Aryan unity lasted until the first tendencies towards the sound-shifting in Germanic might very well have begun to operate. On our theory the Aryan tribes took a very few generations to accomplish their march from the Urheimat in northern Germany to Bactria.

In the treatment of voiced aspirates, again, the affinities of Sanskrit are entirely with the West. Greek and Italic agreed in making them breathed aspirates, changing further in Italic into spirants. Germanic made them into voiced spirants and kept them so completely distinct from the unaspirated medials that the latter became tenues while
the former hardened into voiced stops ${ }^{1}$. While then in both these important phonetic developments Sanskrit differs fundamentally from Iranian and from all the satam dialects, it finds affinities in Greek and the eastern side of Italo-Keltic, but still closer affinities in Germanic. Among other contacts we might mention the agreement of Germanic and Aryan in changing $\breve{o}$ to $\breve{a}$ : this also appears in Balto-Slavonic. Even in the fundamental difference of East and West in the treatment of labiovelars, we notice that Germanic decidedly stops at the $q^{u}$ stage, showing no sign of the labial infection which marks the Safine in Italic, the Brythonic in Keltic and the Aeolic in Greek ${ }^{2}$. This shows Germanic decidedly nearer than the other centum dialects to the Eastern Indo-Germanic, in which the labialising tendency wholly disappeared. Are we to postulate a period when Germans, Kelts, Italians (and Greeks? ${ }^{3}$ ) occupied the centre of Europe from north to south, with the $q$ group fronting the satzm country and the $p$ line, cutting through them all, further west?

It seems natural to connect these contacts-as my colleague Professor Conway reminds me-with the links between Aryan and Italo-Keltic described by Kretschmer in his remarkable book (mis!)called Einleitung in die Geschichte der griechischen Sprache (1896), pp. 126-144: see also Conway in Enc. Brit., s.v. 'Latin Language.' Space compels me to forgo the temptation to set them down

[^164]or comment on them. They seem to be much closer in morphology and vocabulary than those we can gather between Germanic and Sanskrit, but less deep-seated in phonetic affinity. If this remark is true, we might account for the fact by supposing Italo-Keltic to have been neighbour to prehistoric Sanskrit at some period, while the German-Sanskrit affinity would better suit the relation of actual descent ${ }^{1}$. Is it possible to explain the facts by supposing a very rapid migration of a relatively small northern tribe from somewhere near the Baltic? Thence we may suppose them striking south-east into southern Russia, thus avoiding the Lithuanians, who, as Hirt shows (Die Indogermanen, 97), cannot have had any real association with the Germans in early times. Swiftly moving east past the Caspian, we conceive them ultimately descending on the country known later as Bactria and Arachosia. There would be considerable resemblance to the invasion of Greece by Professor Ridgeway's Achaians; but the period must be one in which the Indo-Germanic folk were but slightly divided in speech, and lived within a comparatively restricted area. Probably that period was not as early as we have been accustomed to think it : Hirt (op. cit. 22) would put it $1800-1600$ b.c. There they conquered a people speaking what may be called an Iranian dialect, immigrants of an earlier period, who had developed the satam peculiarities completely. In this milieu the Aryan culture was developed, presumably through the older population mainly, but the language was that of the invaders. These restless warriors however did not stay very long. They left their mark behind abundantly, even perhaps in physique. The typically 'Aryan' Achaemenids remind us strongly of the northern stock: we may instance

[^165]$$
17-2
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the huge Artachaees in Herodotus (vii. II7) ${ }^{1}$. When the Indo-Aryans had hived off, the Iranian speech regained its lost ground among the settled tribes left behind. It may well be that some differences between Gathic and Later Avestan-such as the fairly frequent revival of su, proved by metre, where our MS. tradition has the Iranian $s p$-could be referred to the period when in Bactria ${ }^{2}$ the Iranian dialect had not yet won back its ascendancy, except to a partial extent. Some such sequence of events may explain at once the extraordinary closeness of Avestan and Vedic, the late date of their separation, and the magnitude and significance of the differences between them. But I need not say I am acutely conscious of the precarious character of all such speculations. My main desire is to emphasise the remarkable difference in the phonology of the two Aryan dialect groups ${ }^{3}$, so that if I have travelled in the wrong direction for a solution someone else may essay the problem more successfully.

James Hope Moulton.

[^166]
## A BACTRIAN WINGED LION

To the Oriental mind the simple statement of a fact makes no appeal. It not only lacks the picturesqueness dear to his soul, but at the same time it closes the door to the verbal embroidery pleasing to his ear, while the oblique method may further result in added profit, if skilfully handled.

Thus objects of ancient art that pass through the deft hands of the native Indian dealer come more gorgeously arrayed as to the conditions of their discovery than is common in the western world. Many such stories accompanied the large collection of gold ornaments secured from dealers in the north-west Provinces by the late Sir Wollaston Franks, of which Mr Dalton published a catalogue for the British Museum ${ }^{1}$. In addition to the ordinary commendations of the beauty of the object, its rarity, and the immense labour incidental to its acquisition, a favourite feature of such stories is to associate it with some royal site, which flourished very many centuries before the Christian era. Since the death of Sir Wollaston Franks I have maintained relations with certain of his eastern purveyors on the north-west frontier, and the latest prize in this lottery is the bronze lion-like animal shown in the annexed plate. In common with objects of any distinction, it has a flamboyant story. 'Found on the throne-place of an ancient king, who lived six thousand years ago; the site on a river bank being laid bare by a tremendous flood.' It may well be that

[^167]some part of the story is true, but it is a hopeless task to attempt the winnowing of the truth from the falsehood, and the only satisfactory method is to turn to the inherent evidence of the object itself.

The animal is of bronze, cast and finished by chiselling. It represents what may be called archaeologically a lion, standing squarely upon its four legs, and modelled with great vigour and spirit. The head has a more pointed upper jaw than that of a lion, and the actual muzzle has a nose not unlike that of a boar ; the mouth is open, and the tongue has projected with a turned up end, now broken off. The artist has committed the common error of representing the upper canine teeth as in advance of those in the lower jaw. The ears point forwards and are long and narrow like those of a mule ; between them rise two horns of an ogival curve, rough in the middle and terminating in two blunt knobs. The mane is of the most rigid type, modelled in the form of six wedgeshaped steps. From the sides of the breast spring two rudimentary wings, with curved remiges reaching to the height of the mane. The body is little more than a cylinder, decreasing gradually towards the loins; the tail is a ring, on the upper side of which is a leaf which appears to grow from the rump. Another leaf, more of an acanthus type, gradually appears below the throat and spreads downwards over the animal's breast, while from it proceed two vertical ribs, with curved lines between them, simulating wrinkles in the skin. Similar curves are seen on the fore legs, and the two front paws are pierced vertically, as if for rivets to hold the animal on a plinth. As a whole the creature is more remarkable for the forceful character of the design than for delicacy of finish. As the Indian vendor aptly said, 'If one looks at it, he feels by fear that the visitor may be devoured. The complexion is dreadful.'

The question to be answered, and it is an interesting one, is, to what art and to what date does the lion belong?


A BACTRIAN WINGED LION
Height $9 \frac{7}{8}$ inches.

The materials at my command do not provide a sure answer, nor can any of my experienced friends give me any useful clue. Its affinities are very clear-we have here to deal with one of the varieties of the winged monster that appear constantly in ancient art during the first millennium, both in the east and west. At one moment, as a gryphon, he has a bird-like head and feet, at another he assumes the feet of a quadruped, and in almost all of these there is some quality that recalls the beast we are now considering. General resemblance can scarcely help to narrow the issue and attention must therefore be directed towards details. The mule-like ears are characteristic of the gryphon on Corinthian vases, but this type of ear has probably no special significance beyond conveying the impression of alertness. More useful are the truncated horns and the rigid quality of the mane. Both are found on Persepolitan lions ${ }^{1}$, where the hogged mane is very marked, and the horns, though they point forwards, not backwards, are identical with the present example. Here, however, the resemblance ends ; the Persepolitan lion is executed in a manner far more conventional. In Mr Dalton's plates xvi and xxir, a gold armlet and a rhyton respectively, the gryphon heads are all furnished with truncated horns, pointing backwards. These again resemble the horned lion on the coins of Lycia, but in them the truncation, if it exists, is not marked. In the modelling of the face of our lion there is an absence of the square-jawed massive character so distinctive both of the Greek and Persepolitan animal. The triangle formed by the nose and the ears is much less massive than in either of these, the snarling expression is much less majestic and has a character of its own, which is intensified by the peculiar formation of the corrugations over the eyes.

Both the wings and the acanthus leaf ornament on the breast are reminiscent of classical art, while, on the

[^168]other hand, the emaciated body recalls rather the lion of the middle ages in Europe than either Greek or Persian art.

The feature for which I have failed to find any analogy is the tail in the form of a ring. Close examination seems to show signs of wear on the inside of the lower surface, as if a chain or another ring had worn the surface.

A consideration of all these peculiarities points to a mixed Persian art with a classical influence. The 'lion-headed gryphon,' as Furtwängler points out ${ }^{1}$, is a later development of the bird-headed monster, and was borrowed by the Greeks from Persia. True Persepolitan our lion can hardly be ; Greek it certainly is not; and I therefore venture to class it as an example of Bactrian art, and to date it somewhere half-way between the time of Alexander and the beginning of the Christian era. It is manifest that this attribution presents difficulties. A glance at the coins of Euthydemus or of his predecessor Diodotus, covering together the latter half of the third century, shows artistic qualities such as might be expected in Greece itself at the same time. This applies not only to the royal head, for the designs on the reverse are equally worthy of admiration. On these the human and animal forms are naturalistic and executed with great skill, e.g. the seated Herakles on the coin of Euthydemus I or the lioness on those of Pantaleon, or of Agathocles ${ }^{2}$. These animals have well-developed bodies, and are, in all respects, as advanced in artistic quality as are the designs on the obverses. I would submit, notwithstanding, that these facts are not entirely condemnatory of my attribution. In the first place, it may fairly be assumed that (whatever may be our modern practice) the medallist of the Bactrian King represented the high water-mark of talent at the time, while habit and tradition exacted

[^169]conformity with a type. In relation to a work of art such as our lion no such necessities or conditions were existent. The artist was as free as his brain and his environment allowed. His training may have been acquired anywhere between the Himalayas and the Mediterranean, a vast extent of territory which, at the period we are thinking of, must have been saturated with artistic tradition.

It may perhaps be useful to give the vendor's account of the discovery of this object. It is said to have been found near the River Helmund, on the site of some old buildings now destroyed, where a certain Raja Man Thata reigned 'about twelve thousand years ago.' He concludes naively: 'I have been trying since many years [to obtain this lion] but by the Almighty's grace I have only been able to catch hold of it now.'

The lion has been acquired by the National Art Collections Fund and given to the British Museum.
C. Hercules Read.

## ON AN EARLY DYNASTIC VASE IN THE FITZWILLIAM MUSEUM

Among the various objects found together with the carved slates at Hierakonpolis in 1898 comprising the ' Main Deposit,' were a number of roughly made alabaster bowls and dishes. Some of these were inscribed with short formulae consisting of two groups of signs; a group O, accompanied either by a scorpion or by a hawk standing on a crescent-shaped sign, apparently a boat- . To these instances may now be added the variant of the formula which is given on the vase shown on Fig. I, where the group $\sigma^{\circ}$ is followed by the sign for the god Set N.

This vase was bought at Kena in Upper Egypt some years ago, and is now in the Fitzwilliam Museum. Unfortunately no trustworthy data are to be had as to where it was found or with what objects it was associated. The statement that it came from Abydos or Gebelen, from whence according to the local dealers all archaic objects come, is not of much value. The figure of Set, the local god of Nubt, suggests however Nagada, in the same district, as a probable place of origin.

The material is alabaster (calcite). The dimensions are: height 9.5 cm ., width at the top 10.0 cm ., so that Fig. I is about half the size of the original. The workmanship is moderately good; the outer surface is roughly polished with vertical scratches. The inscription is very


Fig. I


Fig. 2


Fig. 3


Fig. +


Fig. 5
roughly done, the signs being only rather deeply scratched in with some sharp tool, perhaps a flint-flake; the loafshaped sign within the $\cap$ is merely hammered.

Besides the inscription, shown in Fig. 2, are four cross-lines resembling the sign for the goddess Neith as it appears on the vases from Abydos; they seem however to be in no order and do not appear to be hieroglyphics.

On Fig. 2 the inscription is shown $\frac{4}{5}$ the original size, and for comparison Figs. 3, 4 and 5 are given on the same scale from the examples found at Hierakonpolis, now in the Fitzwilliam Museum.

The inscription, Fig. 3, is hammered on with some pointed instrument: the scorpion is well drawn; the K, shows only three fingers on each hand, as is usual in early quickly-executed hieroglyphs. The sign between the hands is merely a rough oval. On another example, Fig. 4, the sign is more carefully drawn, and shows that it is not a vase but some sort of loaf. The signs in this case were first pricked in with a pointed tool, and the rows of dots thus made joined up to form a line.

In another example, not illustrated here, the loaf-sign is joined to the inverted K; by two horizontal and one vertical radiating lines.

Fig. 5 is a very roughly executed inscription, but it is given as an example of the formula with . The $\square$ is scratched in, while the hawk on the crescent-shaped sign is hammered. It would be difficult to make out this group without the assistance of clearer examples. The bowl shows traces of red ochre covering the inscribed surface, not merely filling in the inscription.

The hawk on the crescent-shaped object, probably a boat, and the scorpion are well shown on a limestone vase also from Hierakonpolis (see Hierakonpolis i, Pls. xix and $x x$ ). The group $\square_{0}$ appears on a carved ivory cylinder, perhaps part of a sceptre, found among the ivories of the Main Deposit. The loaf-sign in this case is
long and curved upwards at the ends; it is accompanied by a bird, not at any rate the usual shape of a hawk (Hierakon. I, Pl. xv. 6). Examples of the K', arms and the loaf-sign, but with the loaf-sign outside the arms, occur on pottery jars of the ist Dynasty. They are figured in Royal Tombs i, Pl. xlvir. $187-207$.

I am at a loss for an explanation of the meaning of these inscriptions. At first sight they might appear to be the labels of offerings of food made to Horus, Set or Selkis, but their occurrence on what may be part of a sceptre seems difficult to reconcile with this explanation. A group of signs very similar to those on the vase occurs on the monument of Skr. hi. biw now in the Cairo museum ${ }^{1}$, where among his titles is \& is a round pot between the hands of the K' sign, and below it what looks like a thick mat, but may be a loaf. Variants of this title which occur on the same monument omit this last sign. Among the signs written on the ist Dynasty vases already referred to, is one group ( $R$. T. i, Pl. xlvil. I9I. T) which shows the K', arms, the loaf, and what may be a shrine, and may be, therefore, a cursively written example of this title, suggesting a connection between the inscription on our vase and the title on the tomb of Skr. hi. biw. That we have on these vases the names of kings such as 'the Scorpion,' seems to me less likely than that they are the names of the deities Horus, Selkis and Set, especially as Professor Petrie has recently discovered at Tarkhan a vase very similar to the one described, but with the image of the god Ptah, unaccompanied however by the title, or whatever the group with the K? arms may be, shown on the vases described in this note.

> F. W. Green.

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## SOME AXES AND A SPEAR

The friend for whom this book is written knows something of these finds, for I mentioned them in the discussion that followed his paper on 'The Beginnings of Iron' at the Leicester meeting of the British Association in 1907. A report in Man for October 1907, p. 156, treated two different groups of objects as one: 'he described recent finds of bronze spear-heads and axes with an iron spear-butt by peasants in the north-west of the Peloponnese in a tomb with late Mycenaean vases.' I did not see this misleading summary at the time, but became aware of it recently through a reference in Sir Arthur Evans'Scripta Minoa, I. p. 6i: 'In a tomb recently discovered in the north-west of the Peloponnese were LM III vases, bronze axes and spear-heads, but an iron spear-butt.' A foot-note refers to the report in Man and to a paper by Mr Andrew Lang in the Edinburgh Review, January 1908, p. 78 ; but there is a slip here, and the reference should be to Blackwood's Magazine of that date. I take this opportunity of publishing the facts so far as they can be known.

There were two distinct finds, made by peasants at different times, a hoard of bronze axes which had nothing to do with any tomb, and a number of tombs, one of which contained a bronze spear-head and an object which I believe to be an iron spear-butt. They have this much in common, that both groups were said to have been discovered in the north-western corner of the Peloponnese, not far from Patras. The information came from peasants through two different dealers and is subject to the usual reservation.

The interesting point about the axes is that they furnish an indication of intercourse between Italy and Greece; they are all of Italian type and the precise counterpart of one of them has been found in Campania. The other find illustrates the prolonged overlap of bronze and iron, and raises a question as to the right interpretation of certain 'spear-heads' found at Olympia and elsewhere.

## I. A Hoard of Bronze Axes.

About ten years ago one of the smaller antiquity-shops in Athens bought a hoard of five bronze single axes, found by a peasant in the Patras district. Four were plain straight-sided implements with large elliptical hafthole, not unlike a modern woodman's axe, but narrower. The fifth had noticeable features, a rough knob on one side of the butt above the haft-hole and a character in relief on each shoulder, a + on one side, a two-pronged fork on the other. This, the best of the bunch, was bought by Mrs W. K. Foster, who gave it to the Cambridge Archaeological Museum. Of the four, one is in a private collection in England ; the others lay for a long time in the shop and may now be anywhere.

The marks on the Cambridge axe suggested possibilities. Being in relief on the bronze they must have been sunk in the surface of the mould. Such moulds were in two halves and a sign had been scratched within each half on the part forming the shoulder of the axe. It occurred to me that one might hope to come across a companion with like markings and I began to examine all the axes of this type that I could hear of. Before long I found one in the Ethnographical Department of the British Museum, labelled Pozzuoli i 889, which bore the same two marks on the shoulders and had, moreover, the same knob on one side of the butt. It was given to the national collection by Sir Augustus Franks. Baron Anatole von Hügel, keeper of the Museum at Cambridge,


AXE FROM ACHAIA (CAMBRIDGE MUSEUM)


AXE FROM CAMPANIA (BRITISH MUSEUM)
allowed me to take the Cambridge axe to London, so that I was able to compare the two and discuss them with Sir Charles Read and Mr Reginald Smith. I am further indebted to the heads of the two collections for permission to publish them here and to Mr Reginald Smith for his supervision of the drawings, which are the work of Mr Waterhouse.

Let C be the Cambridge, L the London example. Put side by side they are seen to differ in length and in outline, and the question arises whether they can have been cast in the same mould. Some differences can be accounted for. Thus the irregularity of one side of C is due to a flaw in casting; the metal failed to fill that part of the mould. The shorter and more spreading blade of $C$ may be explained by supposing that the original edge was broken or worn away and a fresh one was hammered out. Neglecting the excrescences due to oxidisation, we find that the surface of $L$ has received more careful tooling and polishing, while $C$, a partial failure, was less well finished. After making these deductions it will be found that the resemblance is astonishingly close. The marks on the two axes occupy the same relative position to the knob on the butt-this knob or 'jet' seems to indicate the position of the inlet for pouring in the molten metal-and the dimensions are almost identical. But close comparison of the signs shows certain differences; it is hard to say how far these can be accounted for by the tooling and polishing of the rough castings, or by recutting of the mould and the signs engraved in it; recutting of the mould would account for the neat sunk line which divides the blade of $L$ from the butt. We must admit the possibility of different moulds, but that does not diminish the certainty that the axes or the moulds from which they were made had a common origin.

We have next to consider where they were made. $C$ was found in Achaia, $L$ in Campania; was there
exportation from Greece to Italy or from Italy to Greece ? Here the distribution of the type comes to our aid. The single axe is at home in Italy, a rare visitor in Greece; I leave out of account the miniature specimens found in EM and MM deposits in Crete. It may to some extent have taken the place of the double axe, which is so abundant in Greece, Crete and the Aegean, and is found as far west as Corfu and Santa Maura, but is relatively rare in Italy. There are many examples of single axes of this type in Italian museums, but I have not material for an adequate list ; it will illustrate my point to give the figures for a few northern collections. The British Museum has 3 from Sicily, 5 from Italy: the Cambridge Ethnological Museum I from Sicily, 2 from Italy: the Ashmolean, i from Italy: the Berlin Antiquarium, I from Italy, besides 3 of unknown provenance. In none of these galleries have I noticed single axes of this type from Greece. There is one in the Athens Museum. I have an axe from Macedonia of rather different pattern, with a tubular extension of the haft-hole forming a sheath to strengthen the haft at the point of greatest strain, as in some Hungarian specimens.

A search in Italian collections may bring to light other instances of such marks. An axe in the St Germain Museum, No. I9800, bears a swastika in relief on the shoulder ${ }^{1}$; and a palstave from Rimini in the Ashmolean Museum has a sign, like an E with the end-strokes curved outwards, in relief between the flanges, and other signs incised on one side.

As to date, our type has been found with a type of flat axe which has small lateral stops ${ }^{2}$, and this as Ridgeway has shown (Early Age of Greece, pp. 419 and 443) belongs to the transition from bronze to iron age. According to

[^171]Orsi the ascia ad occhio or scure appears in Sicily before the close of the bronze age, in central and northern Italy somewhat later ${ }^{1}$.
II. Bronze Spear-head and Iron Spear-butt.

Seven years ago there came into the market a number of antiquities, said to have been found in tombs near Patras. There were small vases with bands of rather


Fig. 1. Scale 1:3.
muddy glaze-paint; a bronze dagger-blade with rounded shoulders and short flat tang (Fig. I $a$ ), $10 \frac{3}{8}$ inches long; a socketed bronze javelin-head with medial groove between

[^172]raised ribs extending from the tip of the leaf-shaped blade almost to the base of the socket (Fig. I $b$ ), $6 \frac{1}{2}$ inches long ; a mastos-shaped strainer-cup, also of bronze (Fig. I c), which had probably had a long handle; and two bronze armlets (Fig. I $d$ and $e$ ). The dagger had three rivetholes disposed in a triangle, and below them a change in the patina indicated the edge-line of the haft; if it had been found in Crete one would have assigned it to LM I or earlier. The vases were decidedly late Mycenaean, LM III $b$. The other objects are not easy to date


Fig. 2. Scale 1:3.
precisely. I bought some of the vases, which are now in the Liverpool Public Museum, and kept sketches of the other objects. About the same time I bought two objects which were said to have been found together in one grave, a bronze spear-head and an iron spear-butt, to be described below. About a year later I received from the same source a quantity of late Mycenaean ornaments in bluish-white glass paste, including a necklace of lily-shaped pieces and a number of small oblong plaques of more or less familiar types. I could not ascertain the precise whereabouts of the cemetery. Some of my colleagues in Greece may be more fortunate.

The bronze spear-head is $12 \frac{3}{4}$ inches long, with a greatest breadth of 2 inches. The blade is nearly flat, the
socket being prolonged only as a very low midrib which dies away towards the tip. In the drawing (Fig. 2 above) the object is tilted in order to show the faint midrib, and the full breadth of the blade does not appear. There are signs of a joint along the side of the socket, which seems to have been formed by hammering.

The iron butt-piece is now $11 \frac{1}{2}$ inches long, and was slightly longer when I obtained it. It is much corroded; I have to thank Dr Harold Auden for kindly applying preservative treatment in his laboratory. It consists of a hollow cylindrical socket $5 \frac{3}{8}$ inches long, which contracts and expands again into a quadrate bar which tapers slightly towards the missing termination. At the point where the socket ends and the contraction begins it is strengthened by a bronze ring $\frac{3}{8}$ inch broad.

The inner diameter of the socket-opening is the same in both cases, from $\frac{3}{4}$ to $\frac{7}{8}$ of an inch. The bronze of the ring has the same slightly granulated bright green patina as the spear-head.

At this point I shall be met by the objection that objects like this spear-butt have long been known and have always been described by archaeologists as spearheads. The locus classicus is Furtwängler's account of the bronzes from Olympia (Die Bronzen, Textband iv. pp. 173 ff ., Tafelband iv, Taf. xiv). That great master's conclusions are not to be questioned lightly, but I think that in this case good reasons can be shown. He divides the spear-heads found at Olympia into two classes, leafshaped and four-sided, the latter being what I regard as butts. Of leaf-shaped heads there were a great many in iron, few in bronze; of four-sided 'heads' there were a fair number in bronze, very few in iron; and the latter, like the specimen under consideration, had a bronze ring about the contracted waist. There were a number of bronze butt-pieces of tubular and other types, some of them approximating very closely to the four-sided 'heads.'

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Several of the four-sided bronze specimens from Olympia bear votive inscriptions in archaic lettering, by which they can be dated to the fifth or close of the sixth century; another, which probably came from Olympia, was in Canon Greenwell's collection and has now passed with it to the British Museum ( $\mathcal{G} . H . S$. ir. 77, Pl. xI). I give a fresh drawing and section (Fig. 3). Furtwängler concluded that this type of 'spear-head,' which is relatively rare and confined to the classical world, was invented not long before the period indicated by the inscriptions.

There are several objections to this view. First, on Furtwängler's own showing, iron was the normal material for spear-heads in the classical period, bronze for spear-


Fig. 3. Scale 1:3.
butts. He wrote at a time when the limits of the bronze age were less well defined than they are to-day. The bronze leaf-shaped spear-heads found at Olympia can hardly be later than the eighth century and may be older. It would be very surprising if in the sixth century the Greeks of several different states went back from iron to bronze.

Secondly, the new type of four-sided spear-head, which on this hypothesis came into fashion in the sixth century, would be a very poor weapon. We are asked to believe that after the leaf-shaped head with sharp point and cutting edges had been in use for centuries, the Greeks substituted this clumsy instrument like an elongated poker. In the complete bronze examples from Olympia, the socket penetrates the obelisk-shaped point for three-quarters of its
length; it was little more than an ornamental sheathing of the wooden shaft. Where the bronze tip is preserved, it is blunt and rounded. Imagine such a weapon in action; it might succeed in punching a hole in a shield, but the useless ring-ornament would stop its further progress. On the other hand, as a butt-piece it answers its purpose admirably, for it had no sharp edges to damage men in the rear-ranks of your own side, yet the blunt point enabled you to drive it into the ground or to strike a shrewd blow in an emergency.

Thirdly, we have many representations of spears and their butt-spikes on painted vases of the period in question, but I know of none in which the head has this curious obelisk-like foursided form with a waist and ring behind it. On the other hand, there are plenty of instances of obelisk-like butts. A kylix by Douris (Vienna Museum, Furt-wängler-Reichhold, Taf. 53)


Fig. 4. shows such a $\sigma \alpha u \rho \omega \tau i \rho$ on two spears in the lower scene: a longitudinal dividing line is introduced below the ring to show the quadrangular form. This is still more distinct on several spears wielded by deities on the great Gigantomachia Amphora in the Louvre (F.-R. 96) ; notice particularly the spear with which Athena (Fig. 4) assails a cowering giant, using the butt-end, the editor observes, just as a modern soldier clubs his musket. Another example is the spear of Achilles on a well-known vase in the Vatican ${ }^{1}$.

[^173]It may be asked why the votive inscription should have been engraved on the butt. Probably this was the usual custom, for such inscriptions occur on undoubted bronze spear-butts. Bronze was more easily engraved than iron, and less perishable. Moreover the flat sides of the type under discussion offered convenient surfaces.

We have no evidence of a Mycenaean $\sigma \alpha \nu \rho \omega \tau \eta \dot{\rho}$ other than the one seen on the Warrior Vase. But Homer's heroes planted their spears in the ground (Iliad iII. 135), and even those who reject as late the fine lines of the Doloneia (x. 152)

## ${ }^{\prime} \gamma \gamma \chi \epsilon<\delta_{\epsilon} \sigma \phi \nu$



and maintain that the spears were planted point down, will find it hard to convince soldiers that the Achaeans treated their polished spear-blades in this disrespectful fashion. I suggest that in that age of 'overlapping metals,' when so many common implements were of iron, the useful spear-butt was made of the humbler metal. On the evidence of the Patras find, such as it is, we may connect the bronze spear-heads of Olympia with the few iron butts, bronze-ringed like Fig. 2, which Furtwängler describes ${ }^{1}$. The next stage would be the substitution of iron, which had now justified itself as a material for weapons of offence. But bronze reigned supreme in the rest of the warrior's equipment-he was $\chi \dot{\alpha} \lambda \kappa \epsilon o s ~ \alpha \dot{\alpha} \eta \dot{\prime} \rho$, and when it was found that the iron butt-spike tended to rust in the damp ground, there was nothing incongruous in replacing it by one of bronze. The ring which had performed a real structural function in strengthening the socket was now cast solid.

On the later vases, the $\sigma \alpha \nu \rho \omega t \dot{n} \rho$ is shown larger and

[^174]blunter than any of our extant examples. Probably towards the end of the fifth century armourers designed it for use in action rather than for sticking in the ground, and therewith reverted to iron, which may account for the absence of such heavy specimens in our museums, where Greek ironwork is lamentably rare. Aristotle implies that in his day it was not the Greek practice to plant the spear in the ground; he illustrates the Homeric lines, as Mr Lang points out, by mentioning the custom of the Illyrians (Poetics xxvi. 14). The oavpetíp was still fitted to the spear, however. Polybius (vi. 25. 6) says that the Romans, ever ready to learn, adopted it from the Greeks because it gave the spearman a chance of striking a second blow ; and elsewhere (xi. 18.4) he tells how Philopoemen pierced an opponent with the point and delivered a finishing blow with the butt.

While correcting the proofs I have come upon a statement in the Archäol. Anzeiger xv (1900), p. 100, that at a meeting of the Berlin Archaeological Society 'Herr Pernice teilte einige Beobachtungen über vierkantige Bronzespitzen aus Olympia mit, welche er als Lanzenschuhe deutete.' I am glad that my view has been anticipated by so high an authority on Greek bronzework.

R. C. Bosanquet.

## A BYZANTINE INSCRIPTION AT OKHRIDHA

In the lower town of Okhridha ${ }^{1}$ stands the former cathedral of St Sophia which was built by Leon ${ }^{2}$, its first Greek Patriarch and Archbishop, after the destruction of the Bulgarian Empire by Basil II. The earliest possible date for Leon's accession to the patriarchal throne of Achrida seems to be 1025 , and since he died in 1056 the church must have been built between these two dates. After the Turkish conquest the cathedral was converted into a mosque, but is now (1912) no longer in use. Repeated earthquakes have shaken and cracked the walls, and since no efficient repairs have been undertaken the whole of this interesting building is in imminent danger of collapse. At the west end a large building was added subsequently, probably as a residence for the clergy. This, which is now used as a storehouse and is in good condition compared with the cathedral itself, shows so far as a hasty examination of its interior permitted no signs of ever having been used as a church. Its orientation too, for it is built at right angles across the west end, speaks against this. At the north end over what was probably the main entrance to this addition is a small octagon, perhaps once a belfry, but which has been used by the Turks as a base for the minaret. It is to be hoped that with the advent

[^175]of better days in Upper Macedonia a detailed architectural study of this most interesting church will be possible ${ }^{1}$.

As has just been mentioned the date of the cathedral and its builder are known. Fortunately also the name and date of the builder of the addition are known from an inscription on the building itself. This, which is made with tiles ${ }^{2}$ set on edge in a common Byzantine manner ${ }^{3}$, runs along the west side over the long row of windows which light the large hall on the first floor. The large size of the letters, which seem to be at least a foot high, and the consequent length of the inscription make it appear rather ostentatious. It was first published in 1867 by von Hahn and has since been seen and published by others ${ }^{4}$. Gelzer, the last to publish it, reads it as follows :-
-TIWCHKOГPHГOPI ---I INNFWLKHNHNE ГEIPAD

MdNCロ4WC $\because$ GG牙WKE

which he transcribes

${ }^{1}$ Other churches in Macedonia which seem to deserve study are the large mosque, once a church (St Sophia ?), in the main street of Verria (Beroea), the church of the monastery of Sveti Naum, the other churches of Okhridha itself, the church at Boria near Kortsha (Gelzer, Ath. Mitt. 1902, p. 441; Weigand, Die Aromunen 1. p. 110), the churches of Kastoria, and the church at Galishte to the west of Kastoria.
${ }^{2}$ Geizer (Ath. Mitt. 1902, p. 432) describes it as 'eine in ungewöhnlich grossen Buchstaben ausgehauene Inschrift.'
${ }^{3}$ Cf. Evans, Archacologia, Vol. 49, p. 146 ; similar inscriptions are to be seen on the walls of Salonica and Constantinople, cf. van Millingen, Byz. Constantinople, pp. 98, 100.

 no. 140 ; Bodlev, Sbornik, Vol. x., p. 570 ; $\Delta \eta \mu i \tau \sigma a s, ~ M a к \epsilon \delta o \nu i ́ a, ~ p . ~ 379, ~ n o . ~ 349 ; ~$ Gelzer, Ath. Mitt. 1902 , p. 431 ff.; cf. also Evans, Archacologia, Vol. 49, p. 146. Of these publications those of von Hahn, Alexudhis, and Bodlev have been inaccessible to me.

Dhimitsas reads:-
H॰ <HCOTPHГ $\triangle$ PIӨC :::NOWCKHNHNE GIPAC =TON
๑ЄOГAфONNDMDNEENHTAHVCWNEK $\triangle I \triangle A C K \in I M A N L O \phi W C$ + SFCWK
transcribing it:-

 є́тє८ $5 \omega \kappa$.

Bodlev and Dhimitsas, both natives of Okhridha, both wish to read the first word as $\mathrm{M} \omega \ddot{\mu} \boldsymbol{\sigma} \bar{\eta} s$ or the like. Of the copies published those of Heuzey and Gelzer are the best. To the former is due the restoration $\tau \alpha u ́ \tau \eta \nu \forall \epsilon \bar{\omega}$ adopted by Dhimitsas, and his copy of the damaged first part reads thus:-

About the latter part of the inscription there can be no doubt except for the date which was incompletely copied by Dhimitsas and Heuzey. The correct date is given by Gelzer, $, \overline{5 \omega \kappa \epsilon}, 6825$, which is $1316-17$ A.D. As to the beginning of the inscription the restorations adopted by Dhimitsas and Heuzey are unsatisfactory, for in spite of the breach of the cretic rule in the last line it is clear that the inscription is intended to be in iambics, and therefore any restoration to be really satisfactory should be one in which the first line is also an iambic.

In the summer of 1912 I paid a short visit to Moskhopolis which lies in the Albanian hills five hours west of the Albanian town of Kortsha ${ }^{1}$ and between it and Berat. Moskhopolis was during the seventeenth and eighteenth centuries a flourishing town, and was destroyed by the Albanians after the suppression of the first Greek revolt

[^176]in 1770 . It was a Vlach town, and the name Moskhopolis ${ }^{1}$ seems to be a hellenized form of some Slav name. It formerly had a great trade and early in the eighteenth century possessed a printing press ${ }^{2}$. With a view to determining the period during which the town was most flourishing I copied most of the dedicatory inscriptions in the churches. For, although only the kernel of town which is inhabited to-day by a mixed population of Vlachs and Albanians has survived, all the churches are still kept up, in spite of the fact that many of them stand in the midst of meadows which mark the sites of ruined houses. In the church of St Athanasius, after the end of a long dedicatory inscription saying that it was built:-

 Kupiou 'I $\omega \alpha \sigma \dot{\alpha} \phi$ є’v ${ }^{\prime} \tau \tau \eta \xi \sigma \lambda^{\prime} \beta$
comes the sentence:-




This is obviously an imitation of the Okhridha inscription, especially since we have the spelling $\nu \epsilon \omega^{\prime}$. My own copy of the Okhridha inscription reads as follows:-
which according to the Moskhopolis version we can restore thus:-

$$
[\mathrm{K}] \tau \iota(\sigma) \tau \dot{\eta} s \quad \dot{o} \quad \Gamma \rho \eta \gamma \delta \rho \iota(o)\left[s^{\prime} \mathrm{I} \sigma \rho \alpha\right](\dot{\eta} \lambda) \quad \nu \epsilon(\dot{c} \nu)
$$

इкицท̀ є́ $\gamma \epsilon i ́ \rho a s ~ \tau o ̀ \nu ~ \theta \epsilon o ́ \gamma \rho а ф о \nu ~ \nu o ́ \mu о \nu ~$

$$
\begin{aligned}
& \text { '́ ' } \epsilon \ell \overline{, 5 \omega \kappa \epsilon} \text {. }
\end{aligned}
$$

[^177]Then the first line by scanning Г $\rho \eta \gamma o$ ó $o s$ with the iota long makes an iambic line and excellent sense, stating that Gregorios had erected a new tabernacle for Israel.

The church of St Athanasius bears in tiles the date 1724 and an inscription saying it was built by masons from Krimini ${ }^{1}$. Another date on the church is 1721 , and we also learn from other inscriptions that the wall paintings and other interior decorations were completed in 1744 and the external decoration in 1745, when Ioasaph was patriarch of Achrida. Ioasaph, who was a native of Moskhopolis ${ }^{2}$, and so probably a Vlach, was at first bishop of Kortsha and afterwards patriarch of Achrida from i7i9 to $1745^{3}$. These dates which we know of from other sources agree perfectly with the dates on the church itself. Consequently the building of St Athanasius being fixed between I721 and 1745 we may conclude that at that time the inscription of Gregorios on St Sophia at Okhridha was complete. The damage to it probably took place between I745 and I867, the date of von Hahn's journey. Perhaps the curious form of the fourth letter is due to an attempt at restoration, for the Andronicus version has $\mathrm{K} \tau \iota \sigma \tau \eta^{\prime} s$ quite clearly, and later on $\nu \epsilon \omega^{\prime}$, which is the actual reading of the St Sophia inscription. The use of $W$ where we should expect $\triangle$ may be due to restoration, though perhaps the omega may be a misunderstanding for a cursive alpha.

Gregorios was apparently Patriarch and Archbishop of Achrida ${ }^{4}$, and also according to our inscription one of the apostles of the Slavs of Upper Macedonia. Cantacuzenus ${ }^{5}$ refers to him as àvì $\sigma$ офós $\tau \epsilon$ єis 入ózovs каi $\theta \alpha \nu \mu \alpha ́ \sigma ı$ оs
 doros Metochites, who flourished under Andronicus II

[^178]
## BYZANTINE INSCRIPTION AT OKHRIDHA 285

 Palaeologos 1282 - 1328 , addressed a poem to him after he had ceased to be archbishop ${ }^{1}$. The Mugoi are of course the Slavs, for Muroi is a Byzantine way of spelling Moıroí, and since the Slavs settled in Moesia and Thrace Serbs and Bulgars are often referred to by pedantic Byzantine writers as Muqoi каi Tpıßалоí.A. J. B. Wace.

[^179]
## OVIDIUS DE MIRABILIBUS MUNDI

In Guillim's Heraldry (ed. 1679 pt i. p. 137) two lines of Latin verse are quoted from "a certain author" a propos of the habits of the Lion:

Parcere prostratis scit nobilis ira leonis ${ }^{1}$
Tu quoque fac simile quisquis dominaris in orbe.
Who is the author? The sentiment, at least, occurs in Ovid (Tristia inl. v. 33) :

Quo quisquis maior, magis est placabilis irae,
Et faciles motus mens generosa capit.
Corpora magnanimo satis est prostrasse leoni, Pugna suum finem cum iacet hostis habet.
The expression finds a parallel in Lucan (vi. 487)
Has auidae tigres et nobilis ira leonum Ore fouent blando.
while Claudian (Laud. Stilic. iI. 20) has:
Obuia prosternas, prostrataque more leonum Despicias,
and Dracontius (Romulea v. 307) says:
imitare leones
Quos feritas generosa iuuat; super arma tenentes Ingruere, fremitusque dare procul ore cruento Nobilis ira solet; subiectis parcere gaudent.
Perhaps we are justified in assuming that Ovid and Lucan furnish a sufficient basis for the matter of the lines which stand as our text. Until further evidence of the fact is forthcoming we need not suppose that Dracontius, -whose poems, and especially those on secular subjects, had

[^180]no very wide circulation,-inspired our author. But what was Guillim's immediate source? I conjecture it to have been that form of the Bestiary which is printed among the works of Hugh of St Victor (ed. 1617, Tom. II. Migne P. L. 177). In this the source is not named: the lines are introduced with the common formula "unde uersus." We can, however, go farther back. In a later section, on the Hyena, two more lines of the same indifferent character are quoted: and all four lines occur in what I cannot doubt is the original document, the poem de mirabilibus mundi.

This composition is, with a refreshing boldness, attributed to Ovid in most of the manuscripts 1 have seen. I cannot discover that it has ever been printed, though I dare not affirm that it has not. At any rate I offer what I believe to be an editio princeps as my contribution to the celebration in which we are so glad to take part.

The manuscript which I take as the basis of my text is McClean MS. 7 in the Fitzwilliam Museum. It is probably of the eleventh century (possibly twelfth), seems to have been written in Italy, and stands alone in respect of its age, of the correctness of its text, and of the fact that it attributes the poem neither to Ovid nor to anyone else: it has neither title nor colophon.

The other copies which I have consulted are:
Bodleian MS. Digby roo, of cent. xiv.
Eton College no. 91, of cent. xiii-xiv, formerly the property of Winchester College.
St John's College, Cambridge, no. 62, of cent. xv.
Harley 3353 of cent. xiv-xv, in which an abortive attempt has been made to "moralize" the poem by adding interpretations of the phenomena described.

There is also a copy at Trinity College, Dublin (no. 270: D. 4. 9), assigned to cent. xiii-xiv. This I have not seen.

The above are all the copies which I have succeeded in detecting. There are doubtless others; but if it is fair to judge from the evidence of five, not much will be
gained from an examination of them : unless-and the exception is, I admit, important-unless one or other prove to contain further portions of the text : as it stands, it has neither beginning nor end.

Of those which I have collated the Digby MS. comes next to the $\mathrm{Mc}^{\mathrm{c}}$ Clean MS. in correctness. Those at Eton and St John's are ludicrously bad. The Harleian copy, apart from its interpolations, is decent.

I may say at once that I do not propose to encumber my edition with a statement of the senseless variants of the inferior MSS. The Mclean copy offers a text which may be described as practically faultless, and to it I adhere.

Leaving to other students to determine if they can the date and place of origin of these verses, we will consider the purpose for which they were written, and the sources whence their matter is drawn. Neither are difficult to determine.

The verses evidently belong to the interesting category of inscriptions designed to accompany pictures. They fall into 79 sections, of one, two, or three lines, each describing a single subject. In the $\mathrm{M}^{\mathrm{c}}$ Clean MS. a title is written in the margin opposite to every one of the sections except two. The Digby, St John's, and Harley MSS. have a few of these titles, the Eton MS. none. Some of the titles, and nearly all of the verses, are couched in a form which shows beyond the possibility of doubt that they were meant to serve as explanations of pictorial representations. Of the titles, these are perhaps the most striking: (20) Fur. Fons Sardinius. (27) Hyena. Tugurium. Pastor. (29) Tibicen. Fons Alisimus. (35) Fenix. Sol. (38) Apis. Homo quilibet. Iulius Cesar. Apis. (73) Diomedea auis. Sepulchrum eius. These inscriptions are intended to be written above the principal persons or objects in a picture. The fashion of thus labelling the dramatis personae is common to ancient and medieval art. The paintings of Polygnotus at Delphi, the chest of Cypselus, and multitudinous vases attest it for the one period: the

Bayeux tapestry, the Bamberg coronation-mantles, and many a window at Chartres or Bourges for the other. So, too, with the verses. Most of them are as plainly descriptive labels as are the titles: Hic serpens-hic fonshic draco,-this form of phrase runs through the whole composition.

It may be possible in the future to determine what the work of art was for which the verses were designed to serve as an interpretation. It seems to me likely to have been either a frieze of frescoes in a hall or cloister, or a set of hangings for a church or palace, like the Bayeux tapestry already mentioned.

Turning to the sources of the poem, I find that by far the greater part of the matter is furnished by a single authority. Out of the 79 sections no less than 73 can be traced with certainty to Solinus ${ }^{1}$. This point, important as it is, need not be dwelt upon here; the parallels are given in full below the text.

Of the six sections which do not owe their being to Solinus something may be said here. They are:
26. The Rhinoceros which will lay its head in a maiden's lap.
41. The Lion's whelp born dead and quickened on the third day by the lion's roar.
43. The female viper, killing the male, and in turn killed by her young.
48. The Enhydros able to detect poison.
63. The eagle cooling its eggs with the stone aeitites.
79. The Griffin able to carry off a whole horse as its prey.

The matter of $26,40,43,48,79$ is to be found in the Etymologiae of Isidore of Seville. For 63 the nearest equivalent I have yet found is in the Liber de naturis rerum used by Vincentius in the Speculum Naturale (viri. 23). The "Lapidaries" of Marbod and others do not give the particular property selected for description by our Poet.

Besides the above-quoted authorities the compiler has evidently read Lucan. The descriptions of serpents show

[^181]numerous coincidences with those in the Pharsalia (Ix. 700 -838). From Lucan also, as we have seen, he derives the phrase "nobilis ira leonis." That he knew other Latin poets we may fairly assume, but no others, I think, have left important traces upon his work.

As to the text, two matters demand some treatment :
(I) The Digby manuscript furnishes something in the way of scholial. These extend as far as $§ 38$, after which only the titles, and not all of these, are given. The authors cited in the scholia include Isidore, Beda de imagine mundi, Solinus, Marcianus Capella, Pliny, Lucan, Promatheus (i.e. Alexander Neckam's corrogationes Promathei or Promethei). It has not seemed to me that anything would be gained by printing these notes.
(2) The recension of the poem given by the Harley MS. 3353 is peculiar. An attempt is made to give a moral or spiritual meaning to the verses, and a prologue, also of a religious nature, is prefixed. The moralization, however, does not go very far. After § 17 no addition is made to the original. The added verses, by the way, show themselves to be additions by the fact that the assonant or 'leonine' character of the original is not preserved. The text is corrupt in places, and the copy a late one. I give the "moralized" portion in an Appendix.

## Ovidius de mirabilibus mundi.

(1) Iaculus.
(2) Herba Sardonia.
(3) Pelorium stagnum.

Hic serpens uentis pernicior atque sagittis Transfigit quosque iaculatus ab arbore sese.
Huic fera tam seuum tribuit natura uenenum
Ut quicumque bibat uitam ridendo relinquat.
Corpus in hac unda tinctum tabescit ad ossa. 5
(1) 1, 2. Iaculi arbores subeunt equibus ui maxima turbinati penetrant animal quodcunque obuium fortuna fecerit. Sol. 27.
(2) 3, 4. Herba Sardonia...rictu diducit ora, ut qui mortem oppetunt facie ridentium intereant. Sol. 4.
(3) 5. Pelorias...tres lacus...Tertium ara sacrum approbat...qui ad ean pergit, aqua crurum tenus peruenit; quod ultra est (non licet) attingi...qui id ausus sit, malo plectitur, quantamque sui partem gurgiti internauerit tantam it perditum. Sol. 5 .

[^182](4) Linx.
(5) Tragopa.
(6) Albanus.
(7) Amphisibaena.
(8) Bucephalus.
(9) Tigris.
(Io) Gymnosophista.
(ii) Hymantopoda.
(12) Antropofagus.
(13) Bos tricornis.
(14) Scita (h)ostis.
(15) Emorroys.
(16) Leucocroata.
(17) Bos unicornis.
(18) Elephas.
iDraco.

Lincis in eximium durescit urina lapillum; Hanc tegit in fossis uelut usibus inuida nostris. Veruecis specie frons est cornuta tragope. Nascitur hic canus, niger est ẹtate grauatus, Luce uidet modicum, sed noctis tempore mirum. Io Parte caput gemina uergens rotat amphisibena. Hoc prouectus equo magnus fuit ille Macedo. Saltibus est agilis et morsibus aspera tigris. Ne coquat extrema uestigia feruor harena, Dum querit mathesim suspendit crura uicissim. 15 Hoc genus ire nequit, sed flexo poplite repit. Hunc habet hic morem, fert hunc in mente furorem, Carne sui generis pro summis utitur escis. Hunc opulenta bouem finxit natura tricornem. Hec gens hostilem gaudet sorbere cruorem. 20 Corpus ab hoc hydro morsum rubet imbre cruento; Egreditur sanguis per mille foramina carnis. Hec currens nimium superat genus omne ferinum. Venerat hic lentus ad cornua danda iuuencus. Hic draco frigentem bibit ex elephante cruorem 25 Ast 〈el>ephas fortem dum labitur opprimit hostem. Hinc fit cynnabarum, confuso sanguine mixtum.
(19) Taurus Indicus. Omnibus his fauces gemine scinduntur in aures.
(4) 6, 7. Lynces quarum urinas coire in duritiem pretiosi calculi...istud etiam ipsas lynces persentiscere...quod egestum liquorem illico arenarum tumulis...contegunt, inuidae scilicet ne...transeat in nostrum usum. Sol. 2.
(5) 8. Tragopan...auis maior aquilis, cornibus arietinis proferens armatum caput. Sol. 30.
(6) 9, 10. Albani...albo crine nascuntur...nocte plus quam die cernunt. Sol. 15 . Also 52 gentem quae in iuuentute cana sit, nigrescat in senectute (India).
(7) 11. Amphisbaena consurgit in caput geminum...serpat tractibus circulatis. Sol. 27. See also Lucan ix. 719.
(8) 12. Alexandri magni equus Bucephalus dictus etc. Sol. 45 .
(9) 13. Pedum motum nescio uelocitas an peruicacia magis adiuuet etc. Sol. if.
(10) 14, 15. Gymnosophistas uocant...in globo igneo rimantes secreta quaedam, arenisque feruentibus perpetem diem alternis pedibus insistunt. Sol. 52.
(1i) 16. Himantopodes flexis nisibus crurum repunt potius quam incedunt. Sol. 31 .
(12) 17,18. Anthr. quibus execrandi cibi sunt humana uiscera etc. Sol. $\times 5$.
(13) 19. (India) Sunt ibi praeterea boues...tricornes. Sol. 52.
(14) 20. Scytharum...asperior ritus est...interemptorum cruorem e uulneribus ipsis bibunt. Sol. 15.
(15) 21, 22. Haem. morsu sanguinem elicit, et dissolutis uenarum commerciis, quicquid animae est euocat per cruorem. Sol. 27. Also Lucan ix.
(16) 23. Leucrocota uelocitate praecedit feras uniuersas. Sol. 52.
(17) 24. (India) Sunt praeterea boues unicornes. Sol. 52.
(18) 25-27. Elephantis...frigidior inest sanguis, et ob id a draconibus auidissime torrente captantur aestu...cum ebiberunt sanguinem, dum ruunt belluae, dracones obruuntur...utrinque fusus cruor terram imbuit, fitque pigmentum...quod cinnabari uocant. Sol. 25 .
(19) 28. Indicis tauris...hiatus omne quod caput. Sol. 52.

## M. R. JAMES

(20) Fur. fons Sardinius. Huic fonti tanta uis est ad furta probanda Ut si latro bibat cecus post pocula fiat. 30
(2I) Manticora.
(22) Ladas.
(23) Cinnamolgos.
(24) Nilus.

Hec facie nostra, leo corpore, scorpio cauda.
Hic dum currebat tanta leuitate uigebat
Ut minime lesam pede peruolitaret harenam.
Hec auis ad nidum conuectat cinnama tantum.
(25) Hyppopoda.
(26) Rinoceros. Virgo.

Ignorat physicus que me producat abyssus. 35
Hic sibi dissimilis pedibus fulcitur equinis.
(27) Hyena. Tugurium. Pastor.
(29) Tibicen, fons Alisinus.
(30) Troglodita.
(31) Visontis. Hic rinocerotem demulcet uirgo ferocem.
Hunc uocat a cauea noctu per nomen hyena, Accitumque rapit et seuo uulnere carpit. Indicus hoc more pomorum uiuit odore. 40
Hic fons pauper aquis cum perflat tibia flabris Admirans odas transcendit litoris oras.
Vescitur hic colubris, nec defit uita salubris:
Non timet inde mori cum mortem porrigat ori.
Esse boui similem iussit natura uisontem. 45
(32) Camelus Bactrianus. Singula de uestris procedunt tubera tergis; Camelus Arabicus. Vos Arabum duplis uectatis corpora strumis.
(33) Cinocephalus.
(34) Satirus.

Hic deformis homo latrat stridore canino.
(20) 29, 30. Fontes...coarguendis ualent furibus...nam quisquis sacramento raptum negat, lumina aquis attrectat...ubi periurium non est, cernit clarius : si perfidia abnuit detegitur facinus caecitate etc. Sol. 4 .
(21) 31. Mantichora,...facie hominis...corpore leonino, cauda ueluti scorpionis aculeo spiculata. Sol. 52 .
(22) 32,33 . Primarm palmam uelocitatis Ladas quidam adeptus est qui supra canum puluerem cursitauit ut...nulla indicia relinqueret uestigiorum. Sol. . 1.
(23) 34. Cinnamolgos... Arabiae auis...texit nidos e fruticibus cinnamorum. Sol. 33.
(24) 35. Nilus....incerto paene fonte decurrens proditur. Sol. 32 .
(25) 36. Hippopodes indigenae humana usque in uestigium forma in equinos pedes desinunt. Sol. 19.
(26) 37. Isid. xii. 12, 13. Rinoceron....sicut asserunt qui naturas animalium scripserunt, uirgo puella praeponitur quae uenienti sinum aperit, in quo ille omni ferocitate deposita caput ponit.
(27) 38, 39. (Hyaena) sequitur stabula pastorum et auditu assiduo addiscit uocamen, quod exprimere possit imitatione uocis humanae, ut in hominem astu accitum nocte saeuiat. Sol. 27. The lines are quoted in the Bestiary (ap. Hugon. de Sto V. Opp. 11. p. 275).
(28) Gangis fontern qui accolunt...odore uiuunt pomorum siluestrium etc. Sol. 52.
(29) 40, 41. In Halesina regione (Siciliac) fons alias quietus...cum siletur, si insonent tibiac exultabundus ad cantus cleuatus et...ultra margines intumescit. Sol. 5 .
(30) 42. Troglodytae... Homines isti carnibus uiuunt serpentium. Sol. 31 .
(31) 44. Bisontes qui bouis feri similes. Sol. 20.
(32) 45, 46. Arabici bina tubera in dorso habent, singula Bactriani. Sol. 49 .
(33) 47. Cynocephali Sol. 27 no exact coincidence : but 52 : nationcs capitibus caninis...latratibus tantum sonantes.
(34) 48. Satyri de hominibus nihil aliud pracferunt quam figuram. Sol. 31 .
(35) Fenix. sol.
(36) He, femine uocantur Bitie apud Scithiam.
(37) Crocodrillus.
(38) Apis. Homo quilibet. IIulius C. Apis.
(39) Balsamum.
(40) Fons gelonius.
(41) Leena. Catulus. Leo.
(42) Cerastes.
(43) Vipera.
(44) Scytalis.
(45) Cesar. Quattuor scribe.
(46) Delphinus.

Hic specifex athomum sic uite terminat euum. 50
Hec mulier quadrupla uisum prebente pupilla
Mortificat uisu quem respicit aspera uultu.
Tergus huic monstro nulli penetrabile ferro.
Nil erit huic triste cuius gustantur ariste:
Hunc auersatur cui sors aduersa minatur. 55
Arboris ex nodis rorant opobalsama nobis.
Exstat huic liquido diuersa potentia riuo;
Nam steriles grauidat, fecundas germine priuat. Exanimem biduo catulum lea seruat in antro,
Quem leo uiuificat cum uasto murmure clamat. 60
Decepturus aues corpus tegit omne cerastes; Cornua denudat, miserumque uolatile captat. Conceptos morte parit equa uipera sorte.
Cum serpens scitalis toto sit corpore segnis, Splendet tantarum uarius fulgore notarum 65 Ut stolidos homines capiat sua membra stupentes.
Cesar maiores transcendens atque minores
Nutibus alternis dictat scribenda quaternis.
Transilit hic piscis pendentia carbasa puppis.
(35) 49. Rogos suos struit cinnamis...in solis urbem strue altaribus superposita. Sol. 33. Mcelean here reads Hoc, all the others Hic. Athomum seems to be an adjective meaning "long."
(36) 50. In Scythia feminas nasci quae Bityae uocantur: eas in oculis pupillas geminas habere et perimere uisu si forte quem iratae aspexerint. Sol. i.
(37) 52. Circumdatur maxima cutis firmitate...ut ictus quouis tormento adactos tergo repercutiat. Sol. 32 .
(38) 53,54 . (Apis bos) : Dat omina manifestantia de futuris; illud maximum si de consulentium manu cibum capiat. Denique auersatus Germanici Caesaris dexteram, prodidit ingruentia, nec multo post Caesar exstinctus est. Sol. 32.
(39) 5 5. ut iam nobis latissimi colles sudent balsama in...cortice...plaga uulneratur ex qua eximiae suauitatis gutta manat. Sol. 35 .
(40) 56,57 . Gelonium stagnum...ibi et fontes duo, alter de quo si sterilis sumpserit, foecunda fiet, alter quem si foecunda hauserit uertitur in sterilitatem. Sol. 5 .
(41) 58,59. Isid. xii. 2. 5. Cum genuerint catulum tribus diebus et tribus noctibus catulus dormire fertur: tunc deinde patris fremitu...ueluti tremefactus cubilis locus suscitare dicitur catulum.
(42) 60, 61. Cerastae praeferunt...cornicula, quorum intentatione...sollicitatas aues perimunt: nam reliqua corporis de industria arenis tegunt. Sol. 27 .
(43) 62. Isid. xii. 4. if. Ita fit ut parens uterque pereat: masculus dum coit, dum parturit, femina.
(44) 63. Scytale tanta praefulget tergi uarietate ut notarum gratia uidentes retardet et quoniam reptando pigrior est, quos assequi non quit, miraculo sui capiat stupentes. Sol. 27.
(45) 66, 67. Inter omnes homines Caesar dictator enituit...quaternas etiam epistolas perhibetur simul dictasse. Sol. ı.
(46) 68 . ut plerumque salientes transuolent uela nauium. Sol. 12.
(47) Alce.
(48) Bufomon (l. Ich$\left.\begin{array}{l}\text { neumon ?) uel Eni- } \\ \text { dros uel Suillus. }\end{array}\right\}$
(49) Seps.
(50) Antipodos.
(51) Castor.
(52) Equus Iulii C.
(53) Apis taurus.
(54) Hypnale.
(55) Cameleon, Coruus, Laur〈us〉.
(56) Scenopoda.
(57) Monoceros.
(58) Fale (Eale).

## M. R. JAMES

Huic tanta mole labrum dependat ab ore
Ut pasci nequeat nisi retro crura reducat.
Hic probat in cena si sint admixta uenena.
Fert speciem loeti species miranda ueneni;
V iscera tabescunt, caro neruus et ossa liquescunt.
Cum digitis octo surgit pede planta retorto. 75
Ut redimat sese truncat genitalia dente,
Hoc quoniam purum medicina requirit ad usum.
Cesar in hac belua gessit ciuilia bella.
Queritat euentus a tauro bruta iuuentus.
Hec stirps serpentis quem ledit acumine dentis 80
Illi dulce mori, quia mors est mixta sopori.
Extimuere meum uolucresque fereque uenenum Sed coruo soli cessit uictoria nostri,
Cui contra uirus prestat medicamina laurus.
Hic pedis obiectu sese defendit ab estu. 85
Dum cornu pugnat transuerberat omne quod obstat.
Cornua fronte duo gerit hec, sed pugnat ab uno,
Et tamen alterutro per prelia prima retuso
Alterius tandem pugne succedit acumen.
(47) 69. alces....adeo propenso labro superiore ut nisi recedens in posteriora pasci non queat. Sol. 20.
(48) 71. Isid. Etym. xii. 2. 37, 38. Enhydros bestiola (kills the crocodile): (38) Ichneumon graece vocatus eo quod odore suo et salubria ciborum et uenenosa produntur. De quo Dracontius ait (Laud. I. ${ }^{15}$ ) Praecidit suillus vim cuiuscumque ueneni.
(49) 73. Ictus sepium putredo sequitur. Sol. 27.
(50) 74: Ad montem qui Nulo dicitur habitant quibus auersae plantae sunt et octoni digiti in plantis singulis. Sol. 52 .
(51) 75. Testiculi eius adpetuntur in usum medelarum: idcirco...ne captus prosit, ipse geminos suos deuorat. Sol. I3.
(52) 77. Equus C. Caesaris nullum praeter Caesarem dorso recepit: cuius primores pedes facie uestigiis humani tradunt fuisse, sicut ante Veneris genitricis aedem hac effigie locatus est. Sol. 45 .
( 53 ) 78. Pueri Apim gregatim sequuntur, et repente uelut lymphatici uentura praecinunt. Sol. 32 (cf. § 37).
(54) 79. Hypnale quod somno necat teste etiam Cleopatra emitur ad mortem. Sol. 27.
(55) 81. Impetibilis est coraci...corax quoque habet praesidium ad medelam... nam cum afflictum se intelligit, sumpta fronde laurea recuperat sanitatem. Sol. 40.
(56) 84. Monocolos...qui ubi defendi se uelint a calore, resupinati plantarum suarum magnitudine inumbrentur. Sol. 52 .
(57) 85. Cornu...ita acutum ut quicquid impetat facile eius ictu perforetur. Sol. 52.
(58) 86-88. Est et Eale...pracferens cornua....neque enim rigent sed mouentur ut usus exigit pracliandi...ut si nisu aliguo fucrit alterius acumen obtusum acies succedat alterius. Sol. 52 .
(59) Hippopotamus. Dum segetem pascit retro uestigia ducit; 90
phana.
(61) Arimaspus.
(62) Ibis.
(63) Aquila. Ethites lap〈is〉.
(64) Polimestor.
(65) Fons Epiri.
(66) Psitacus.
(67) Pegasus.
(68) Blemmias.
(69)
(70)
(7r) Cameleon.
(60) Leo. Leonto- Membra leontophane, leo solo lancinat ungue;

Retia tendenti sic deficit ordo sequendi.
Hac solet ex carne quoniam deceptus obire.
Omnis in hac gente fert unica lumina fronte.
Ore parit nidis uiuitque uolucribus ydris. 95
Temperat hoc lapide ne decoquat oua calore.
Hic poterat facile leporem currendo preire.
Mersa sub hoc amne pereunt incendia flamme, At iuxta flumen repetit fax mortua lumen.
Hi uolucres rostris dant uerba simillima nostris.
Huic natura duas aures adiecit equinas.
Dum caput abscidit, sensus natura reliquit:
Fert humeris uisum, discernit pectore gustum.
Clam pia merentem fouet ubere nata parentem
Cum uigil obseruet nequis fomenta ministret. 105
Parcere prostratis scit nobilis ira leonis;
Tu quoque fac simile quisquis dominaris in orbe.
Hoc animal miserum cum nil sibi querit ad esum
Ore patet semper, quia pascitur aëre uenter.
(59) 89. Noctibus segetes depascitur ad quas pergit auersus astu dolose, ut fallente uestigio reuertenti nullae insidiae praeparentur. Sol. 32.
(60) 91. Leontophonas uocari accipimus bestias modicas...(leones necant) si quantulumcumque ex illis sumpserint. Propterea leones...dilancinatas exanimant pedum nisibus. Sol. 27.
(61) 93. Arimaspi...unocula gens est. Sol. 15.
(62) 94. Serpentium populatur oua...ex his escam nidis suis defert...pennatorum anguium examina...agmen deuorant uniuersum...ore pariunt. Sol. 27 .
(63) 95. Vinc. Spec. Nat. viii. 23. Ex libro de riaturis rerum. Aquila in nido lapidem habet Aethitem...et hunc contra calorem nimium quem habet aquila naturaliter incubans in nido ne scilicet depereant oua decocta calore nimio.
(64) 96. Polymnestor Milesius puer...ludicro leporem consecutus est. Sol. 7.
(65) 97. In Epiro fons est sacer...si ardentem in eum mergas facem, exstinguit. si procul ac sine igni admoueas, suopte ingenio inflammat.
(66) 99. ut articulata uerba penitus eloquatur. Sol. 5 -
(67) 100. (Aethiopia) Illius coeli ales est pegasus: et haec ales equinum nihil practer aures habet.
(68) 101. Blemmyas credunt truncos nasci parte qua caput est, os tamen et oculos habere in pectore. Sol. 31.
(69) 103. Pietatis documentum nobilius quidam in Metellorum domo refulsit sed eminentissimum in plebeia puerpera reperitur. Haec...cum ad patrem...aegre obtinuisset ingressus exquisita saepius a ianitoribus ne forte parenti cibum sumministraret alere eum uberibus suis deprehensa est. Sol. 1. (Plin. 17.121.)
(70) 105. Prostratis parcunt. Sol. 27.
(71) 107. Hiatus eius aeternus...quippe cum neque cibum capiat neque potu alatur, nec alimento alio quam haustu aëris uiuat. Sol. 40.

## M. R. JAMES

(72) Hanesius.
(73) Diomedea auis: Sepulchrum eius.
(74) Dypses.
(75) Prester.
(76) $\left\{\begin{array}{l}\text { Arimpheus. } \\ \text { Laurus. }\end{array}\right.$ Laurus.
(77) Kartago. Strabo. Lilibitena specula.
(78) Erquilinia auis.
(79) Grippes. Equus.

Omnis in hoc genere pro uestibus utitur aure; IIO
Hinc corpus nudum fit contra frigora tutum.
Pugnaces socii Diomedis in aëra rapti,
Contra naturam uolucrum sumpsere figuram,
Imbrificantque ducis tumulum rorantibus alis.
Ardens poscit aquas quem ledit uulnere dypsas:

II 5
Continuat potus, sed eo magis uritur intus,
Et nisi per mortem nescit finire calorem.
Lesus ab hoc angue distendit membra tumore
Et caro cuncta suam perdit tumefacta figuram.
Non petit hic magnum donis cerealibus annum, 120
Fructifera totum quia ponit in arbore uotum.
Prouidus hic Strabo de culmine Lilibitano
Per numerum classem notat ad Carthaginis arcem.
Huius auis plume sparsim per compita fuse,
Luce sua multum dant nocte uiantibus usum.

125
Hanc quasi permodicam grippes uehit ungue rapinam.
(72) 109. Esse et Phannesiorum, quorum aures adeo...dilatentur ut uiscerum reliqua illis contegant, nec amiculum aliud sit quam ut membra membranis aurium uestiant. Sol. 19. (Panotii Isid.)
(73) 110. Insula...tumulo ac delubro Diomedis insignis est et Diomedeas aues sola nutrit...aquis imbuunt plumas alisque impendio madefactis confluunt rorulentae: ita aedem excusso humore purificant....Ob hoc credunt Diomedes socios aues factos.
(74) 114 . Dypsas siti interficit. Sol. 27.
(75) 117. Prester quem percusserit distenditur, enormique corpulentia necatus extuberatur. Ibid.
(76) 119. Et ipsi frondibus arbustorum gaudent: baccas edunt. Sol. ェ7.
(77) 12I. Strabo nomine quem perspexisse per cxxxv millia passuum Varro significat, solitumque exeunte a Carthagine classe Punica, numerum nauium manifestissime ex Lilybetana specula notare. Sol. i.
(78) 123. Saltus Hercynus aues gignit, quarum pinnae per obscurum emicant... Inde homines plerumque nocturnos excursus sic destinant ut illis utantur ad praesidium itineris dirigendi etc. Sol. 20.
(79) 125. (Sol. 15 mentions Grypes but not horses.) Isid. xii. 2. 17. equis uehementer infesti. Nam et homines uiuos decerpunt. (Bestiary adds: et integros in nidum asportant.)

## Appendix

The moralization of the poem from MS. Harley 3353, of cent. xiv-xv, follows here.
f. 54 b. Inc. Ouidius de mirabilibus mundi. (This title is a slightly later addition.)

Omnipotens opifex species $a b$ origine mundi
Iussit inesse suo generi, pacemque tenere;
Pacem compositam discussit ${ }^{1}$, monstraque multa
Et pestes peperit aer, tellus, liquor, ignis.
Incubus est demon nunc mas nunc femina gingnens
Fetus immundos. Aditus si seruat ${ }^{2}$ apertos
Sancte forma crucis, fraudes procul effugat ${ }^{3}$ hostis.
Nobilis est opifex, opus eius nobile; mentem
Virtus nobilitat, scelus est ignobile monstrum.
Hic serpens uentis etc.
Transfigit etc.
Est iaculum telum, Iaculus secat* aera serpens.
Iram designat ${ }^{5}$ Iaculus mentisque furorem.
Eneus est serpens, serpentis wlnera Christus
In palo sanans, humanaque crimina mundans. 15
$O$ vere mirum super omnia mira! Creator
Virginis intacte clausa ${ }^{6}$ processit ab aluo
Factus homo, rumpens nodose vincula mortis,
Nos redimens, hostemque domans, pacemque reformans.
Est deus in sanctis mirabilis, hiis quia morbos 20
Dat sanare graues et mortis soluere nexus.
Huic herbe...
Ut quicumque...
Signans quod mortem dant huius gaudia mundi,
$\dagger$ De (or Que) medicis apium risus re nomine fertur $\dagger .25$
Plinius ${ }^{7}$ hoc olim scripsit; si scribo quod ipse
Diuisit, mira dixit, moralia dico.
(3) Stagnum Corpus in hac unda tinctum tabescit ad ossa. i.

Pelorum. putrescit.
Indurata malo multorum corda figurat.
$\begin{array}{ll}\text { Pasiphe. } \quad \begin{array}{l}\text { Candida Pasiphe tauro se iunxit inepte, } \\ \text { Concipiens }{ }^{8} \text { monstrum, nisi dicat opinio falsum. }\end{array} \\ & \text { Hoc omnes contra naturam tangit agentes. }\end{array}$

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## M. R. JAMES

(4) Ligurium. Lincis ab urina tacto fit aere $\mathrm{p} . .$.

Hanc tegit....
Qui possessa tegunt miseros designat auaros. 35
Veruecis specie frons ${ }^{1}$ est coniuncta traiope.
Frontem veruecis portat pugnare paratus.
Nos aper auditu, linx visu, simea gustu,
Wlpis ${ }^{2}$ odoratu deuincit, aranea tactu.
Morsibus, ingeniis, specie, racione, $\dagger$ preiutus $\dagger 40$
Nascitur hic canus...
Luce videt...
Ad mala perspicui sunt multi, nec bona cernunt.
(7) f. 55 b.
(8) de bucifale.
(9)

Parte capud...
Sic pociora videt prudens refugitque nociua. 45
Hoc prouectus...
[a space of one line blank.]
Saltibus est agilis ingentibus aspera tygris.
Ostendit tigris homines furibunda ${ }^{3}$ rapaces ${ }^{4}$.
(10) Ginosophista.
(ii) Ymantopoda.

Ne quoquat...
Dum querit...
50
Ista laborantes in vanum bestia signat.
Hec gens...
Signat adulantes amplexu, poplite, verbo.
(12) Antropophagus. Hic habet hinc morem...

Prolongando suam feritatis acumine vitam. 55
Carne sui generis...
Huic opulenta...
Qui tenet ecclesias multas bos esto tricornis.
Est janus bifrons homo prouidus, et tria regna
Qui tenet esto triceps Gerion qui rexit Hiberos. 60
(14) Gens sitica. Hec gens hostilem...

Designans homines omni pietate carentes.
Corpus ab hoc...
Egreditur...
Hic est qui serui retinere stipendia gaudet. 65
(16) Lancrocota.
(17)

Huc currens...
Cornu grassatus ad wlnera danda iuuencus. i. unicornis.
Virginis in gremio capi〈tur〉 Christumque figurat.
Hic draco sugendo bibit ex el $\langle\mathrm{e}\rangle$ phante cruorem.
The remainder of the poem contains no interpolation.
${ }^{1}$ fons ${ }^{2}$ Wltus. ${ }^{3}$ furibunde. \& ll. 48, 49, are transposed.
M. R. James.

## THE COLOPHON IN THE LINDISFARNE GOSPELS

The Book of the Gospels of Lindisfarne, of Durham, or of St Cuthbert, as MS. Cott. Nero D. 4 in the British Museum is variously styled, is universally acknowledged to be one of the greatest triumphs of the school of art commonly called 'Celtic.' It is the one manuscript of its class worthy to stand beside the Gospels of Kells. Indeed in some respects it shows the special characters of Celtic art in even greater purity than its rival.

It is therefore very surprising, when we search for the artist's name, to find a colophon in the Northumbrian dialect, ascribing the work to Eadfrir, bishop of Lindisfarne, the cover to his successor EXilvald, and the decoration with gold and gems to the anchorite Billfrio. The colophon is in the hand of one Aldred son of Alfred, who calls himself a presbyter indignus et misserrimus [sic]a piece of self-depreciation not without justification, as this unworthy and wretched person has scribbled an interlined gloss in his native dialect over the whole book, sparing not even the illuminated initial pages on which the artist lavished such care. The dates of the bishops named are A.D. $698-721$ and $724-740$ respectively. The glosses and colophon are in a hand of about the tenth century. Aldred thus ascribes the execution of the MS. to a date some two centuries before his time.

Bruun ${ }^{1}$ gives an admirable description of the Manuscript, which may here be quoted. 'It is a large quarto

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## R. A. S. MACALISTER

volume... [and] contains the Four Gospels of St Jerome's Latin Version, with the usual appendices of Prefaces, Eusebian Canons, etc., written in a clear regular hand of pronounced Celtic character. As a monument of mediaeval art, it commands the admiration of anyone who has the good fortune to turn over its brilliantly illuminated folios: and of examples of this class of work now in existence there is only one that can rival it in artistic merit-the Book of Kells.' He accepts unreservedly the historical testimony of the colophon, while commenting, as we shall see below, on the pronounced 'Celticity' of the art of the MS.

I suppose bishops had more time on their hands in the eighth century than in the twentieth : it is hard in our strenuous days to conceive of a church dignitary having the time, even if he had the skill, to execute a work of art like the Gospels of Lindisfarne. Setting aside this little difficulty, which savours of hypercriticism, let us for convenience assume that Eadfri' $\begin{gathered}\text { wrote the manuscript }\end{gathered}$ about the middle of his tenure of office-say about 710 A.D.-and see whither this will lead us as a fixed point in the history of Celtic art.

What other MSS. of the Celtic school can be dated to a time so early? The Book of Armagh is nearly one hundred years later: and as Bruun very justly observes, this MS. ' as a literary document is of singular interest... but as a specimen of ancient Irish book ornamentation it is a very poor one indeed.' The fragments found in the Domhnach Airgid, the Stowe St Fohn, and perhaps the Books of Dimma and of Mulling are the only other MSS. of the group that approximate to the date assumed for the Lindisfarne gospels. And one and all, these from the point of view of art are puerile and, so to speak, tentative specimens: it is next to incomprehensible that they should be on the same horizon, in point of time, with the Lindisfarne book.

Next, what are the dates of the MSS. which are worthy
of comparison with the Gospels of Lindisfarne? We have lost the great Book of Kildare which Giraldus saw and praised in a passage often quoted: there is no reason whatever to suppose that this book was the same as the Kells volume. For the extant books, the only fixed points which we have are these: (I) the cumdach of the Book of Durrow was made in the time of King Flann Sinna, therefore about the beginning of the tenth century. (2) The cumdach of the Book of Kells was stolen in 1006 A.D. (3) Mac Riaghail, the probable scribe of the MS. which bears his name, died in 820 A.D. (4) MaelBrighte mac Dornain, after whom the Canterbury Gospels is named, died in 925 A.D.: in the same year Athelstan, who presented this book to Canterbury, came to the throne.

Though these dates are not so full as they might be, they point to the conclusion that the great works of Celtic illumination fell into about the same period as the other chief manifestations of the Celtic artistic instinct. The memorial slabs of Clonmacnois, for example, begin about the middle of the eighth century, some forty years after the alleged date of the Lindisfarne book. They are at first poor and rude, but improve in both design and execution till the end of the ninth century. After that degeneration sets in. The best of the High Crosses are all dated to the beginning of the tenth century. Now it would be probable that so valuable a work of art as the Book of Durrow would be provided with a shrine soon after it was finished: so that if its shrine were made in (say) 910 or thereabouts, we are probably safe in making the MS. itself not more than fifty years older. MaelBrighte mac Dornain was not, apparently, the scribe of the gospels which bear his name: the colophon says istum textum dogmatizat. He would presumably not take the trouble of collating or authenticating an old and accepted MS.: this implies that the text was recently written when he concerned himself with it, and therefore
it cannot be earlier than the end of the ninth century. No direct evidence of the date of the Book of Kells is forthcoming, but even Miss Stokes, who had caught Petrie's weakness for antedating, came round at last to the view that assigns the book to the ninth century.

Another line of argument suggests itself. Mr Romilly Allen has shown ${ }^{1}$, on apparently good grounds, that interlacing work developed from plait-work at the end of the sixth and beginning of the seventh century. This being assumed, we are confronted with the difficulty of explaining how one supreme example of ornament founded on this style was produced early in the eighth century, and followed by a hundred years' eclipse.

In addition to all these difficulties, we are confronted by a historical problem. How are we to account for the complete absorption of Celtic motives by this Saxon bishop, some fifty years after the Columban monks left Lindisfarne, and that at a time when Roman models were being eagerly sought in every department of ecclesiastical art? 'Turning now,' says Bruun, 'from the tenth century insertions to the main text with its artistic enrichment, that is, the volume in its original aspect, we are a little surprised to find that we have, at the same time, taken leave of the English element in this manuscript... Here is nothing Saxon or Anglic; nothing even that betrays any immediate influence tending to modify the purely Celtic traditions.' This almost amounts to a reductio ad absurdum. Giraldus ascribes the beauty of the Gospels of Kildare to the miraculous intervention of an angel : the genesis of the Gospels of Lindisfarne under the circumstances alleged would be hardly less miraculous. A yet later authority, Sir E. Maunde Thompson, in his recently published work on Palaeography, says of the specimen of the Lindisfarne book which he gives: 'How nearly it follows the Irish model needs no demonstration. The remarks made on the forms of the letters in the specimen

[^185]from the Book of Kells apply generally to this example. At the same time, a difference is discernible between the two MSS., which seems to indicate the difference of country of origin. The letters of the Lindisfarne Gospels, besides being of a more solid type, are rather broader and the curves are even more symmetrically drawn than in the Book of Kells.' But such nuances can be accounted for by the individuality of the penmen. Manuscripts produced by two artists working side by side in the same scriptorium would present the same slight differences in detail.

Briefly, we are forced to the conclusion that the testimony of the Colophon must be rejected altogether, and that Eadfri> never saw the Book of Lindisfarnemuch less wrote it. There is precedent for this: no one now believes that the Book of Durrow was written by the hand of Columba in the impossibly short space of twelve days, notwithstanding the statement of its Colophon. Why then should we accept a statement which involves the whole history of Celtic art in quagmires? If we throw overboard the statement of the presbyter indignus Aldred, there will no longer be the necessity of making the development of this art unintelligible by assigning an extravagantly early date to this one book. It will drop naturally into its proper place in the ninth century. And its history will be much the same as that of the Mac Riaghail and Mac Dornain Gospels. These were certainly written in Ireland, or perhaps in the case of the second in the Irish colony of Iona: they fell by some means, no doubt nefarious, into Anglo-Saxon hands: glosses and other notes were scribbled in them: and in the case of the Lindisfarne book, besides stealing and scribbling in it the Saxons asserted that they wrote it themselves!

Only two arguments can be brought forward against this summary treatment of the colophon. The first is the admittedly curious Neapolitan influence which the Lindisfarne book displays, coupled with the fact that one

Adrian, abbot of Nisita near Naples, is known on Bede's authority to have visited Lindisfarne in 668 A.d. While I would not minimise this coincidence, it seems to me a shaky basis on which to support a statement otherwise involved in so many difficulties. Granted that Abbot Adrian came to Lindisfarne, thirty years before the accession of Eadfri>, we have to assume that he left his copy of the Gospels behind him when he departed; that it lay about in the monastery for over thirty years: and that it was at last chosen as the basis of an elaborately illuminated copy in preference to all the other copies available. If we have to make all these assumptions, we may just as well remember that in the ceaseless movements of missionaries and students, all eager for knowledge, there were plenty of other ways by which a text with Neapolitan affinities could find its way to a Celtic Monastery.

Secondly, Bruun says of the colophon 'that statements of this nature, though written down in their present form a couple of centuries after the occurrence of the events which they record, were gathered from reliable sources, may be inferred from the detailed description and matter-of-fact tone of the memorandum. A loose tradition without real foundation would neither have entered into this series of apparently insignificant details, nor have contented itself with the comparatively obscure names of the bishops Eadfri> and Exilvald and the anchorite Billfri>. If at the time when the Northumbrian monk inserted his interlinear version and his note on the origin of the Manuscript, the names of the makers had not been known for certain, we may be pretty sure that tradition or legend, less unpretending than reality, would not have failed to associate the costly relic with a more illustrious name, say that of St Aidan.' This however seems to me a weak argument. Eadfrior and the rest are names obscure to us, but they may have been of the highest importance in the Monastery in Aldred's time. Very likely he looked

## THE GOSPELS OF LINDISFARNE

on their tombs every day of his life ; and it is not difficult to imagine ways by which he could have come to entertain the notion that they had produced the manuscript which he took it on himself to gloss. He was writing about people as far removed from his time as we are from the time of Queen Anne: and his testimony to their doings is no more valuable than modern hearsay evidence of the doings of Addison, or of Handel, or any other of the lights of society of that time.

Finally, the decorations ascribed by Aldred to EXilvald and Billfrio are suggestive of a cumdach or shrine. If anything were wanting to corroborate the theory of an origin in Ireland or Iona for the Lindisfarne Gospels, this essentially Irish detail would supply the need.

Possibly, like the famous cathach of the O'Donnells, the book was carried as an amulet into some battle, and captured by the Saxons. The absence of phyllomorphic patterns in its decoration suggests that it is rather older than the Kells volume: if we say that it was written about 830 A.D., glossed about 930, and that it changed hands some time between 840 and 890 , we shall do no violence to historic possibility, and shall have given time for the growth of the foolish tradition which the presbyter indignus et misserrimus Aldred of Lindisfarne recorded, for the perversion and confusion of the history of Celtic art.

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## THE SCANDINAVIAN KINGDOM OF NORTHUMBRIA

One of the unsolved problems of Scandinavian influence in England is the extent and character of the Norse or Danish settlements in the old Kingdom of Northumbria. Recent study of the place-names of one county within that area (viz. Northumberland) has suggested that some light may be thrown on the problem from this source. The lines of investigation have been those followed in all recent place-name study, viz. that no satisfactory inferences, philological or historical, can be drawn from the study of place-names unless we trace the development of their forms from the earliest times, and no attempt therefore has been made to deal with place-names on the modern map which may possibly be of Scandinavian origin but for which no ME form can be found.

The following are the place-names in which some Scandinavian element may be discovered, arranged in the geographical groups into which they seem naturally to fall. (v. infra p. $3^{1} 3^{1}$.)

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## THE OLD KINGDOM OF NORTHUMBRIA

## The basin of the Till and its tributaries.

Akeld (Kirknewton), ir69 Pipe Acbelda. ON á, river + kelda, well, spring. The second element is in common local use for a marshy place (EDD). Akeld lies on the edge of the well-marked valley of the Glen, and Akeld Steads lies low, by the river itself.

Coupland (Kirknewton), cf. Lindkv. pp. 145-146. 1255 Ass. Couplaund. ON kaupa-land, land gained by purchase ( $=$ kaupa-jer $\delta$ ) opposed in a way to oڭals-jerr, an allodial estate, cf. Copeland (Cumb.) and Copeland House (co. Durham).

Crookham (Ford), 1244 Ch. Crucum. Dat. pl. of ON $k r \delta k r$, a crook or winding, often used in Norse place-names (Rygh, Indl., p. 62) of the bends of a river; hence the name means 'at the bends of the river,' and refers to the tortuous course of the Till at this point.

Crookhouse (Howtel), 1323 I.p.m. Le Croukes 'The windings' (cf. Crookham), referring probably to the course of the Bowmont Water at this point.

Ilderton, cf. Lindkv. pp. io-if. in89 Plac. Abbr. Hilderton, i228 FPD Ildertone. Medieval forms vary between initial Ilder- and Hilder-. The proper form is probably Hilder-< ON Hildar gen. sg. of the woman's name Hild. 'The homestead of a woman named Hild.'

## Along northern coast, down to $R$. Coquet.

Lucker, ${ }^{1167-9}$ Pipe Lucre. The second element is ME ker, a marshy place, Mod. Eng. carr < ON kiarr, 'ground of a swampy nature overgrown with brushwood.' The first may be ON $l l^{\prime}$, a sandpiper. This bird specially frequents 'flat marshy places such as are often found near the sea shore': this description would suit the actual site of Lucker.

Rennington, ilo4-8 SD Reiningtun. The history of this name is settled by the passage in Simeon of Durham, which says that the town took its name from a certain Reingualdus, who lived in the tenth century. This is the Latinised form of ON Rögnvaldr.

| Fritzner | Fritzner. Ordbog over det gamle Norske Sprog. |
| :--- | :--- |
| HP | Hexham Priory. Surtees Soc. |
| I.p.m. | Calendar of Inquisitions post mortem. |
| Iter | Iter de Wark in Hartshorne, Feudal Antiquities. |
| Lindkv. | Lindkvist. ME Place-names of Scandinavian origin. |
| Moorman | Moorman. Place-names of the West Riding. |
| Newm. | Newminster Cartulary. Surtees Soc. |
| Pat. | Calendar of Patent Rolls. |
| Pipe | Pipe Rolls. |
| Plac. Abbr. | Placitorum Abbreviatio. |
| Rygh | GP Gamle Personnavne i Norske Gaardnavne. |
|  | NG Norske Gaardnavne. Indl. Indledning til NG. |
| RBE | Red Book of the Exchequer. |
| SD | Simeon of Durham. Rolls Series. |
| Testa | Testa de Neville. |
| Wyld | Wyld. Place-names of Lancashire. |

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Howick, cf. Lindkv. p. 182. The medieval forms vary between forms with $a$ and forms with $o$ in the first syllable, the latter greatly preponderating -e.g. 1230 Pat. Howic, 1288 I.p.m. Howick. It is possible, as Lindkvist suggests, that the variant forms go back to ON bár and bor, 'high,' but vik here can hardly be ON vik, 'bay or creek,' cf. Hawick (later). It must be $-w i c k=\mathrm{a}$ village.

Denwick, 1278 Ass. Denewick. The 'wick' or dwelling place in the valley (OE denu) or of the Danes (OE Dena).

Brotherwick, 1251 I.p.m. Brothirwike. The 'wick' of a Scandinavian settler named Brooir. This is a well established Norse and Danish personal name: the same element is found in Brotherton (Yo.) and Brothertoft (Lincs.). Cf. Björk. p. 27.

## The basin of the Coquet.

Brinkburn, 1216-27 Newm. Brinkeburn. It is commonly assumed that the word brink is necessarily of Scandinavian origin (cf. Björkman, Scand. Loan-words, p. 232), but Brinkworth (Wilts.) makes this very doubtful.

Rothbury, 1099-1128. Cart. Hy. I Routhebiria (cf. Lindkv. pp. 158-9) 'at the red city.' ON raưr, red.

Thropton (Rothbury), 1176 Pipe Tropton. 'The farm by the thorp.' For the Scandinavian origin of Thorp- v. infra p. 312.

Snitter (Rothbury), 1176 Pipe Snittera. The explanation of this name is difficult but the distribution of this element in Snitterby (Lincs.), Snetterton (Norf.) and Snitterfield (Warw.) makes Scandinavian origin very likely.

Bickerton, 1245 Brkb. Bykerton. Bickerton (Yo.) is explained by Moorman (p. 25) as a derivative of ON bekkjar (g. sg. of bekkr, a stream). The element Bicker- in Bickerstafe (Lancs.) is similarly explained by Wyld (p. 67) with support from medieval forms with $e$. The same element is found in Beckering (Lincs.) and Beckermet (Cu.) where medieval forms have $e$ almost without exception (Lindkv. pp. 5-6). The difficulty in thus explaining the Northumberland place-names lies in the almost uniform occurrence of $i$ forms, and in the otherwise unexampled use of ON bekkr in this county. It would seem also that the explanation of Bickerton must go along with that of Byker (v.inf.) whose medieval forms are identical with those of the first element in Bickerton, except for the regular shortening of the vowel in the first element of the compound. Bickerton is 'the farm near the byker,' a name suiting its situation.

Plainfield (Sharperton), 1272 Newm. Flaynefeld. The first element would seem to be ON feinn ( $=$ OE finn ), a pike, an arrow or the fluke of an anchor. The field may have been so called because of its long narrow shape or because it suggested the fluke of an anchor ; less probably it may be an ON personal name Fleinn, cf. Rygh, GP, p. 72, Flenstad. Rygh (NG xvi) derives Fleina from an adj. fein, meaning 'naked or bare,' e.g. of rocks with no soil on them, a meaning which is quite possible here. The modern form is corrupt.

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The basin of the Wansbeck and its tributaries.
Throp Hill (Mitford), if 66 RBE Trophil. 'The hill by the thorp,' cf. Tbropton.

Tranwell, 1280 I.p.m. Tranewell. The first element is ON trani, 'a crane,' used also as a nickname: hence, the well frequented by cranes or belonging to a man nicknamed 'the crane,' cf. Hawkswell (Nthb.) and Cranwell (Lincs.).

Angerton (Hartburn), ir86-7 Pipe Angerton. Anger- in Angerby and Angerton (Lancs.) is taken by Wyld (p. 51 ) to represent the ON personal name Arngeirr, while Björkman (p. 15) cites one or two examples of the Latin form Angerus in medieval documents, which he takes to be a variant of Ansgarus, representing ON Ásgar. This derivation is possible but it should be pointed out (1) that the explanation of Anger-may have to be taken with that of Ongar (Essex) of which the medieval forms are Angre, Anger, Aunger; and (2) that there is a place in Somersetshire called Angersleigh, earlier Aungerslye. (1) can hardly be explained from a personai name and (1) and (2) are alike against Scandinavian origin. The word may possibly be cognate with OHG anger, 'a grassy field or plain,' the first element in the name of the ancient Angrivarii. Ingram on the Breamish is for earlier Angerbam, and there is the same doubt about its history.

Fiselby (Hartington), 1319 Pat. Fiselby. This place is lost on the modern map but would seem to be a clear example of the familiar -hy suffix. The first element is difficult of explanation.

Hawick (Kirkharle), 1204 I.p.m. Hawik. The first element may be ON bár, high (cf. Howick), the second is Eng. -wick.

Crookdean (Kirkwhelpington), 1324 I.p.m. Crokeden. The 'valley of a Norseman named Krikr,' or 'the valley with or by a crook or bend' (cf. Crookham).

## The basin of the Blyth and its tributaries.

Cowpen (Horton), $1153-95$ Brkb. Cupum. Possibly dat. pl. of ON $k i p a$, 'a cuplike depression or valley.' Cf. Swed. dial. kupa, a valley farmstead. 'At the valley farmsteads.' (Rygh, Indl. p. 29.)

Brenkley (Ponteland), 1177 Pipe Brinchelawa. Cf. Brinkburn above.

Ouston (Stamfordham), 1255 Ass. Ulkilleston. The tun of a Norseman named Ulfkill or Ulfketill.

## Tynedale.

Walker (Newcastle), 1267 I.p.m. Walkyr. 'The ker or marsh by the wall.' Close to Wallsend.

Byker (ib.), 1249 Pipe Byker. The second element is ker (cf. Lucker), the first is probably the OE prefix bī- 'neighbouring' (cf. Bywood, Bygrave, Bywell, Bythorn).

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Pandon (ib.), 1177 Pipe Pampeden. The first element is probably the ON nickname pampi, which Kahle (Ark. f. Nord. Fil. xl, p. 246) connects with Mod.Norw. pampa, 'kleine stumpfende Bewegungen machen.' 'The valley of a man nicknamed Pampi,' cf. Pampisford (Cambs.).

Nafferton (Ovingham), 1216-1307 Testa Natferton. Lindkv. (p. 187) probably explains this rightly as the farmstead of a Norseman nicknamed Náttfari, 'night-traveller,' but it should be pointed out that the explanation of Nafferton may have to go with that of Nafford (Worc.), earlier Nadford, cf. Brafferton < Bradfordton (Durh.).

## Nortb Tynedale and Redesdale.

Haining (Redesdale), 1304 Pat. Haynyng. 'Haining' is in common dialectal use in Nthb. and Durh. (v. EDD) of the preserving of grass for cattle, protected grass. The first element is ME bain, a park or enclosure, connected with ON begna, to hedge or fence.

Toft House (Redesdale), 1397 Pat. Toft. A well-known word of Scandinavian origin.

Bingfield (Chollerton), in 80 Pipe Bingefeld. The first element is probably the Norw. dial. binge, a bin, also a shut-off room for sheep and goats. The word is found in Norse place-names in the wider sense of 'any space cut off.' There is also in ME a word binge, 'a heap,' believed by Björkman to be of Scandinavian origin, so that the Scandinavian origin of the name is very probable.

Gunnerton (Chollerton), 1164 Pipe Gunwarton. The tun of Gunnvarठr (m.) or Gunnvor (f.).

## South Tynedale and Allendale.

Stonecroft House (Newbrough), 1262 Ch. Staincroft. ME spellings in Stain-side by side with Stan-point to Scandinavian influence.

Henshaw (Haltwhistle), twelfth century HP Hedenesbalch. 'The bealh or corner of land of a Norseman named Hex̀inn or (less probably) of a 'heathen' Scandinavian settler.

Ouston (Whitfield), 1279 Iter Ulvestona. The tun of a Norseman named Ulfr.

Featherstone, 1215 HP Fetbirstanbalcht. The first element in this may be the personal name Feader, of Scandinavian origin: O Sw. Fadhir, O Dan. Fathir, cf. Duignan, Worcestershire place-names, p. 60 and Moorman (p. 71).

Kellah (Featherstone), 1279 Iter Kellaw. The first element is perhaps a shortened form of the Old Norse name Ketill. Such a contracted form is found in both Danish and Swedish (cf. Björk. p. 52).

Knar and Knaresdale, 1325 I.p.m. Knarre. 1266 Pipe Cnaresdale. Probably the same as Knardal and Knarredalen in Norway, which Rygh (GP p. I62) is unable to explain.

Whirwham (Knaresdale), 1344 Cl . $W_{\text {ytquam. }}$ 'The white valley.' ON hvammr, a short valley or depression.

## Basin of the Derwent.

Esper Shields (Shotley). The first element may be espar, an old gen. form of ON esp, an aspen-tree, cf. Espervik (Rygh, NG xvi 127).

Waskerley (ib.), 1262 I.p.m. Waskerley. 'The second element is ker, a marshy place (cp. Lucker) ; Wasker-may be the same as Norw. Vatskicer <ON vatns-kjarr, 'the water-marsh' (cf. Rygh, NG vi, p. 2), cf. Carbrooke (Norf.) of which the DB form is Weskerebroc. An alternative explanation is that the first element is ON vás-, 'wetness, toil, fatigue, bad weather,' common in such compounds as vásfers, vásför (Fritzner, s.v.), hence 'a piece of marshy ground difficult to cross.'

## Hexhamshire.

Dotland, 1226 HP Doteland. The first element may be the name Dot or Dotus found in DB which Björkman (p. 29) takes to be of Scandinavian origin, cf. O.Sw. Dotabotha as a place-name and the O.Sw. and Danish woman's name Dota.

Eshells, 1225 HP Eskilescales, 1226 Eskinschell. The suffix shows variation between the Scandinavian scale (ON skáli, a hut or shed, put up for temporary purposes) and English shiel, in common dialectal use with similar force (cf. Lindkv. p. 190). The element Eskile is probably the ON personal name Asketill (ME Askill, Eskill). Eskin might then be the well-established variant Asketinus (cf. Björkman, Nordische Personennamen, p. 17).

## Additional.

Newbiggin. Five Newbiggins, for which ME forms such as Neubigging can be found, may be identified: (1) Newbiggin by the Sea, (2) by Blanchland, (3) by Norham, (4) in Hexhamshire, (5) in Kenton by Newcastle. ON bygging, a building. Considering the comparative rarity of place-names in Northumberland which are of Scandinavian origin it is noteworthy that we find so many examples of the name Newbiggin, which is of comparatively infrequent occurrence in counties with a much larger proportion of place-names of Scandinavian origin.

The first point to notice in this list is the absence of those suffixes -by, -garth, -throaite, -toft ${ }^{1}$ which we most commonly associate with Scandinavian settlement, i.e. we have no examples of just that group of words denoting 'settlement,' 'clearing,' 'farmstead,' 'portion of land' which we should have expected to find (and do find in

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other counties) had there been any regular settlement of the district by a Viking here, with an apportionment of land among its various members. The Chronicle (s. a. 875) speaks of a division of Northumbria among the followers of Healfdene, who now began to plough and cultivate their lands, but it would seem that either this division did not affect Northumbria north of the Tyne or that the settlers must have been ousted by the English before they had been long in possession.

Other exceedingly common Scandinavian elements are entirely missing (-beck¹, -fell, -force, -gill, -holm, -lund, -mire, -scough (-scow, -sco), -tarn, -with)—elements which we should hardly have failed to find had there ever been a time when a Scandinavian speech was commonly spoken throughout the district. Some Scandinavian elements are of fairly frequent occurrence, e.g. crook, keld, ker, haining, bing, biggin, but these elements are in common independent use in the present-day dialect of the district, and it is very probable that they found their way into the dialect from neighbouring districts where the Scandinavian element is much stronger, and were first used in place-names in the ME period. There are two examples of the element thorp, in the form throp: this may of course be Anglian rather than Scandinavian, but the numerous thorpes in Yorkshire in contrast with two in Northumberland and three in Durham, where Scandinavian influence is relatively weak, would seem to point to Scandinavian influence as the determining factor in their distribution. The element dale is in common use (e.g. Allendale, Glendale, Coquetdale), and its wide prevalence in a county showing little Scandinavian influence points to an Anglian origin for this suffix ${ }^{2}$.

There is a considerable number of names containing

[^188]as their frst element a Scandinavian personal name, but as the second element is usually English the name would seem to have been given to the place by an Englishspeaking population who called the farm or settlement after its Norse or Danish occupier. A few names must definitely have been given by Scandinavian settlers and taken over by their English neighbours, e.g. Akeld, Coupland, Lucker, Snitter, Knar, Knaresdale, Whitwham, as we have no evidence for the naturalisation of these words in English. Thus the character of the placenames of Northumberland which contain evidence of Scandinavian influence is such that we cannot believe that there was ever a Scandinavian settlement of the whole of the county or a Scandinavian dialect spoken throughout its area.

The actual distribution of the place-names containing a Scandinavian element confirms these conclusions. For convenience of reference the place-names discussed above have been arranged in certain groups lying within the basin of certain rivers and their tributaries or along the coast, but those groups are to a large extent natural. The group of Scandinavian settlements on the Till and its tributaries is well marked, so is that along the northern part of the coast ; still more clearly marked is the group of settlements on the banks of the Coquet. In the heart of the county there is a small group on the upper waters of the Wansbeck and its tributaries, and though the distribution further south is fairly general, there is still a marked tendency to form settlements in the rich valleys of the Tyne, South Tyne, Allen and Derwent. The settlers would seem to have confined themselves very largely to the fertile river-valleys, and the distribution of their settlements is very different from that found in such counties as Yorkshire or Lincolnshire, where they are found in dale and valley, on fell and wold alike. Such occupation of the richer and more fertile farms is found in other districts which have received a limited number
of Scandinavian settlers, e.g. the northernmost counties of Scotland.

It would seem, therefore, that the Scandinavian settlements of Northumbria north of the Tyne were scattered and unorganized, and it is probable that it was only for a very brief period that the authority of the Norse kings ruling at York was acknowledged.

Allen Mawer.

## SOME GERMAN RIVER-NAMES

For more than forty years a discussion has been in progress as to the origin of the names of certain rivers in the west of Germany. From Müllenhoff onwards many scholars have contended that remains of a Celtic language are preserved in these names, while others either wholly or in part reject any such explanation.

The discussion has of course, in general, been limited to that part of western Germany which lies to the east of the Rhine and north of the Main. It cannot be doubted that the districts to the west and south of this area were occupied mainly by Celtic peoples down to the first century before our era; and few scholars would be ready to reject a Celtic, or at least pre-Teutonic, origin of the names of these two rivers, together with many of their tributaries. But the evidence for the existence of Celtic populations farther to the east-in the basins of the Ems, the Weser and the Saale-is of a less trustworthy character. It is contended that the evidence of Gaulish tradition ${ }^{1}$ points in this direction; but the existence of such populations is not proved by any historical records.

In the absence of historical information it is urged ${ }^{2}$ that at least a portion of the area under discussion can from archaeological evidence be shown to have been occupied at one time by Celtic peoples. This portion is,

[^189]roughly speaking, the southern half of the area-comprising the upper part of the basin of the Weser and nearly the whole of that of the Saale. The chief criteria observed in distinguishing between Celtic and Teutonic deposits are (i) the practice of inhumation or cremation, (ii) the use of painted or unpainted earthenware. The first of these criteria is not entirely free from objection, for it cannot be doubted that in southern Scandinavian lands-a more or less purely Teutonic area-the method of disposing of the dead changed from time to time, apparently without any corresponding change of population. Again, there is a not inconsiderable amount of evidence, both literary ${ }^{1}$ and archaeological, for the practice of cremation by the Gauls, even towards the close of the La Tène period, while in the Bronze Age it is known to have been widely prevalent among the Celtic peoples. Yet in so far as cremation and inhumation are accompanied by differences in earthenware and other articles it may be allowed that the cemeteries probably belong to populations of different nationality; and we have no reason for doubting that the non-Teutonic population was Celtic.

So far as the names in the basins of the Ems and the Weser are concerned the discussion has turned chiefly upon a number of forms which contain the termination $-p e,-p$, or, farther south, $-f e,-f$, representing earlier -apa or -affa, the latter of which shows the High German sound-shifting. Names of this type are frequent also in the basin of the Rhine below its confluence with the Main; but to the south of the latter river they are extremely rare, while in the basin of the Saale they do not seem to occur at all. According to Müllenhoff (Deutsche Altertumskunde, i1. p. 227 f.) this termination is derived either from compound names, of which the second member was related to Ir. $a b$, 'river,' W. afon, or from a suffix $-b$-, which appears in British river-names (e.g.

[^190]Aǘ $\sigma o \beta \alpha$, Toí $\sigma \nu \beta \iota s$, Tovéfooßıs) and which may also be seen in the Gaulish place-name Gelduba (on the Rhine), later known (in Teutonic form) as Geldapa. According to either of these explanations the forms in question will show the Teutonic sound-change $b>p$. Other scholars ${ }^{1}$ however have preferred to derive them from compounds containing a Celtic form corresponding to Lat. aqua, Goth. ahwo, O. High Germ. -aha, etc. In this case of course no sound-shifting can have taken place after the word was borrowed. But there are a considerable number of scholars ${ }^{2}$ who maintain that the termination is not Celtic at all, but derived from a native Teutonic word, probably cognate with Ir. $a b$, etc. In support of this contention they point to the fact that the first element in these names is frequently of Teutonic origin. Again, though names of this type are common even to the west of the Rhine, in what was without doubt at one time Celtic territory, there is reason for supposing that some at least of these are taken from districts east of the river. Neither of these arguments is conclusive, and there is no evidence elsewhere for a Teutonic word $a p$-; but as against this it is to be observed that the evidence for a Celtic suffix $-a b$ - or $-b$ - is likewise very limited.

Apart from the forms ending in $-p(e)$ the number of names in this area for which a Celtic origin has been claimed is not very considerable ${ }^{3}$. In the easternmost part of the area, beyond the Weser, Müllenhoff (op. cit., p. 232 f.) detected only two cases. He pointed out that the Wümme (formerly Wimena, etc.), to the east of Bremen, has the same name as the Vimen (now Visme) in Picardy,

[^191]while the early forms (Lagina, etc.) of the name Leinethe river on which Hanover stands-show a resemblance to that of the Lahn (Logna, etc.), which can hardly be Teutonic. But against these stands the far more important name Weser (Visurgis ${ }^{1}$, etc.), which he explained (p. 2 I 5 f.) as Teutonic. This is a serious difficulty, since it is well known that the names of large rivers are far less liable to change than those of small ones. Most of the great rivers both of Germany and England, e.g. the Weser itself, the Rhine, Ems, Elbe, etc., the Thames, Severn, Trent, etc., bear the same names now that they bore at the beginning of our era. It would be a strange thing therefore if the Weser obtained a new name at the Teutonic conquest, while the Celtic names of comparatively insignificant streams and even becks were preserved ${ }^{2}$.

As regards the south-eastern part of our area (Thuringia) it has been mentioned above that names in $-p(e)$, $-f(e)$ do not occur. This region however contains a number of other names which many recent writers believe to be Celtic, e.g. the place-names Eisenach (Mid. H. Germ. Isenache) and Trebra (formerly Triburi), Finne, a range of hills to the south of the Unstrut, and the river-name Wipper, which is borne by three different streams in Thuringia. In all these cases the possibility of a Celtic origin had been suggested by Müllenhoff himself (p. 233 f.). On the whole however he was inclined to reject this view, especially with reference to the name Wipper, which seemed to him to be more capable of a Teutonic than of a Celtic derivation (p. 214 , note). In his opinion the Teutonic and Celtic peoples were effectively separated from one another in this quarter by a belt of primeval forest which extended

[^192]from the Harz over Thuringia to the highlands on the east. In the last twenty years however archaeological investigation has shown that Thuringia contained a considerable population even in the Stone Age; and at present opinion seems to be more favourable to the hypothesis of Celtic linguistic survivals here than in the basin of the Weser.

It is somewhat remarkable that Müllenhoff believed the names Weser and Wipper to be of Teutonic origin; for he had himself observed (pp. 2I4, note, 2I6, note) that both occur again in districts which were at one time certainly, or almost certainly, Celtic. There is a tributary of the Rhine between Düsseldorf and Deutz called Wipper, while in Belgium a river Weser or Vesdre runs into the Ourthe, not far from Liège. In both cases it is necessary of course to take into account the possibility that the name was introduced by Teutonic settlers who were familiar with the more eastern rivers. It is, we may presume, due to this possibility, together with the absence of an obvious etymology, at least for the name Wipper, in Celtic, that subsequent writers have in general been content to abide by Müllenhoff's opinion ${ }^{1}$.

In England however there is some evidence which seems to have been altogether overlooked and which is not open to any such suspicion. The river Wear (Durham) bears a name which can be traced back (in the form Wiur ${ }^{2}$ ) to the beginning of the eighth century

[^193] records, represents apparently an Ang.-Sax. *Weofre ${ }^{1}$, which may very well be identical with Wipper ; and the same is probably true of the Waver ${ }^{2}$ in Cumberland. In neither of these cases is there any possibility that the name was introduced by the English invaders. The form Wiur shows the (Welsh) loss of intervocalic -s-, which took place probably in the fifth century, while Weaver is free from the Teutonic change $b>p$.

The occurrence of these two names in England, as well as in Belgium, the Rhineland, Thuringia and northwest Germany, affords ground for believing that all these regions were once occupied by peoples of the same stock. It tends therefore to confirm the hypothesis of a Celtic population in the last-named region ${ }^{3}$ as well as in Thuringia ${ }^{4}$. In this connection we may, further, observe that both these names contain the $r$-suffix, which figures so prominently in Celtic countries ${ }^{5}$. This is perhaps the more noteworthy because there are other river-names in north-west Germany with the same suffix, e.g. Ocker

[^194](formerly Obakr-) and Aller (formerly Alara). It may be admitted that these names are not easily recognisable as Celtic ${ }^{1}$; and the same is true of most of the river-names in this region. But how many of them can with certainty be claimed as Teutonic ${ }^{2}$ ?

If the type of names containing the termination $-p(e),-f(e)$ is really of Celtic origin-and though this is a very uncertain hypothesis it has perhaps on the whole the greater probability on its side-the evidence of the name Wipper (:Weaver) tends to confirm Müllenhoff's view, viz. that $-p(e),-f(e)$ shows the Teutonic soundshifting. Good evidence for the sound-shifting is given both by the Thuringian name Finne and by the rivername Waal (Vahalis) in the Netherlands. On the other hand we find unshifted sounds in Leyden (Lugdunum) and Nymegen (Nouiomagus) in the Netherlands, Lahn (Logna), Sieg (Sigina ${ }^{3}$ ) and Wetter (Wedr- in a document of the eighth century) in the Rhineland, and probably also in Trebra in Thuringia. The problem therefore presents considerable difficulties. The true explanation may be that in names and types of names which were recognised a process of sound-substitution took place, after the sound-shifting proper had ceased to operate. But it is doubtful whether this explanation will hold good for every case ${ }^{4}$.

Attempts to ascertain the chronology of the Teutonic sound-shifting have so far not met with much success. Neither is it possible as yet to determine with certainty when the various districts east of the Rhine came into

[^195]Teutonic possession. For the southern half of this area -western Thuringia, Nassau, Hessen-prevalent opinion is distinctly in favour of the fourth century (в.с.). But in regard to the more northern districts, even among those who believe that this region was previously Celtic, the tendency at present is to set the Teutonic occupation very early-earlier perhaps than Gaulish tradition would seem to suggest. From the descriptions of the personal appearance of the Gauls which Greek and Roman writers have handed down one is somewhat tempted to suspect that northwest Germany may have been their home-i.e. the home of the dominant military element among them-in the not very remote past. It has often been remarked that these descriptions recall those given of the Germans at a somewhat later date. The resemblance will be satisfactorily explained if both peoples came from the same region and were sprung, to a considerable extent, from the same race-as is well pointed out in The Early Age of Greece, p. 370 ff . The type is of course that which prevails in the north German plain, as well as in Scandinavian lands, at the present day.

H. Munro Chadwick.

## NOTE

Professor Chadwick's view as to the history of the name of the R. Weaver receives striking confirmation from the fact that a stream bearing the same name in a Welsh form is found in Monmouthshire. It occurs in the Liber Landavensis (ed. J. Gwenogvryn Evans, p. 159) as guefrduur, i.e. in later Welsh orthography Gwefrddwfr.

> E. C. Q.

## A POEM BY GOFRAIDH FIONN Ó DÁLAIGH

The following poem was composed in honour of Maurice Fitz Maurice (Muiris Og) second earl of Desmond. His father Maurice Fitz Thomas, the first earl, justiciary of Ireland, died in 1356. The younger Maurice died about two years later, for on June 16, I 358, guardians were appointed for his widow Beatrice, a minor (Cal. of Patent Rolls, Edward III). It is thus possible to fix the date of the poem within a couple of years. Little is known about the second earl. His father had played a long and important part in the history of his time, and his youngest brother and successor, Gerald the Poet, has a place also in literature and legend. But Maurice Fitz Maurice does not appear to have accomplished anything to justify the poet's extravagant laudation. Such complimentary phrases were part of the ordinary stock-in-trade of the Irish court poets of the period, to which, of course, parallels can be found in the court poetry of other ages and other lands. That such poems should be addressed to the head of a great Anglo-Norman house bears out what we know of the conciliatory policy of the Geraldines.

The author of the poem was Gofraidh Fionn Ó Dálaigh (Godfrey Finn O'Daly) who died in 1387. He was attached for some time to the earls of Desmond, as is shown by two other poems, both addressed to Gerald the Poet. Later on we find him paying court to the MacCarthys of Desmond and the O'Briens of Thomond.

The poem is a very artistic specimen of the metre snédbairdne. The line of twelve syllables is broken by a
caesura, marked in the MS. by a comma, generally after the eighth syllable. The two parts of the first line are connected by alliteration; the first part of the second line consonates with the end rimes, or failing this, shows plentiful internal rime with the second part.

Only one copy is known to me. It is found in the R. I. A. Stowe Collection, A iv 3, p. 652 foll. For a transcript of this I am indebted to Miss Eleanor Knott.

## Gofraidh Fionn Ó DÁlaigh cc.

1. Mór ar bfearg riot a rí Saxan, a sé a dhamhna, do-raduis, gér mhór a meanma ${ }^{1}$, brón for Bhanba.
2. Ma a leannán d’fosdadh na hégmuis, d'uaim lé mór-rath, inis Éirionn an gheal ghríanach, as bean bhrónach.
3. Fúar iompa inntinn mo chridbe, crúaidh an cosnamh, gén gur b'eagail do shearg Shaxan mh'fearg is mh'osnadh.
4. Tré chúairt Mhuiris mbic an íarla a n-égmais Bhanbha, ní théid a bhrón dí nā a dhiomdha, mōr dí a dhamhna.
5. Brón ar éicsibh innsi Fódla 's ar a bfionnmhnáibh, ó do fáguibh dún geal Gabhráin fear úr Iomdháin.
6. On ló do ghlúais mac mic Tomáis an táoibh leabhair, gan féchain síar acht súil soirin dhúinn 'na dheaghaidh ${ }^{2}$.
7. Nó go bfaiciom seól Sior Muiris do mhuin chnairre, mé ag féchain ar lucht gach luingi d'ucht gach aille.
8. Iongnadh dhúinn reacht ré rígh Saxan na slógh meanmnach, tré bheith aigi go mear muirnioch don gheal ghreadhnach.
9. Dalta rïgh Saxan Sior Muiris, maith a chaomhna, trēn ina mhúr mac an íarla, slat úr aobhdha.

1o. Ní hiongnadh d'feabhas a mhúinte maith dá ndingne, ní hiongnadh le méd a mhuirni éd ré a inmhe.
11. Aóibhnios Saxan, sáorchúairt Éirionn, 'gá fhult náamhda fear fá mbía deinmni gach díorma, eigre ${ }^{3}$ an iarla.

[^196]
## GOFRAIDH FIONN Ó DÁLAIGH

12. Lé a oide, lé hairdrigh Saxan, siobhal díoghainn, téid isan bFrainge n-ealaigh n-áloinn bfleadhaigh bffonduinn.
13. Sgéla na Fraingce, fios Saxan, suairc an comhrādh, do-gébhthor 'gan ghasda ghealmhór, bhlasda bonnbhán.
14. Buidhioch inn dá oide múinte, mūnadh thaisgios, 'sas diomdhach mé dá fod fosdus an bog baisdeas.
15. Fúair búaidh gcéille is gcrotha is gconáigh ceann an fionnshlóigh gá ttám acht do-fuair gach iolbhúaidh go mbúaidh mbionnghlóir
16. Nocho ttabhar a gheall gaisgidh, ná a gheall gáoisi, ná geall a dheilbhe ná a dhúaisi, d'eighre a áoisi.
17. Treisi fá rath, rath go gconách, croidhe adhnáir, cíall dá choimhéd, ciabh na bfoighég arna bfaghbháil.
18. A aimhlios an uair do-nithear, do-ní a dhearbhadh an fód tegaimh fá a bhonn bairrgheal don donn dhealbhghlan.
19. Na hairdrionnaigh agá faisnēis dá fult ngēigfíar d'fior a anbhraith cion ar an ardflaith as égciall.
20. Lugh Lámhfada leithéid Muiris, mhóras dámha, comhmór bfeasa an conchlann cródha, comhthrom gcána.
21. A n-áois Muiris mic an íarla do fóir Banbha, dá ttug leagadh d'fíne Ḟomhra bile Bladhma.
22. Tadhbhas do Lugh, leannán Teamhra, thoir a nEamhain, dá ránaig sé ar súr gach domhain, múr Té Teamhair.
23. Dúnta an chathair ar cionn Logha, láoch ro thoghsom, téid gusan múr sleamhain slioschorr, beanaidh baschrann.
24. Ar an doirseóir ris an deaghlaoch, cáit as a ttig ${ }^{2}$ an fear áith ógard
25. Ris an doitseóir adubhairt Lugh ${ }^{3}$, nár loc iomghuin file meisi a hEamhain abhlaigh ealaigh iobhraigh.
26. Nocha dhlighi, ar doirseb́ir Teamhra, tocht diar ndaighthigh, atá fear réd cheird san chathraigh, a dheirg dhaithghil.
27. Teach Miodhchúarta ag macuibh Eithlionn um an am-soin tréidhe an tighe feactha fhinn-sin, teactha tharrsaibh.

[^197]28. Do thréidhibh Thighe Miodhchúarta, nach leigthior dís inn re háoincheird,
as min críochbhuird a finn fíochbhuirb.
29. D'iomat ceard ag Túaith Dé Danann, dháilios bruta, ceird ar nach bfuil aithne aca, caithfe chuca.
30. As dum cheardaibh, na ceil is tigh a ttá an bhuidhion, léim ar bhailg is gan a bloghadh, tairg dá thuireamh.
3I. Snámh ós éttreóir, iomchor dabcha ar drumuibh uillionn, atá dhá cheird ar mo chumhang, eirg dá fuighioll.
32. Fíafraigh an bfuil fear a ndénmha don druing neamhlaig, ragh éineich san bfaithchi bfionnbhuig, graifne gheallmaid.
33. Atá sonn d'iomurcaidh orra, an uiriod tuirbim, 's ní fuil ina gceird mo choimhghrinn, ní d'feirg fuighlim.
34. Ar gcluinsi ar chan an macáomh, mór a thairmsēin, d'agallaimh Thúath Dé don doirseóir lúath é ainnséin.
35. Fear san doras, ar an doirseóir, rén doirbh coimeas, atá an uile cheard ${ }^{1}$ ar a chommus, an dearg doinndeas.
36. Damadh é Lugh, leannán Fódla na bfonn sriobhfann, do bheith ann, ar Túath Dé Danann, dob é a ionam.
37. Geall n-égaisg ón fior san doras, damhna leisgi, nocha ndearnadh d'úir na d'uisgi, dúil dán dleisdi.
38. A tháobh, a aghaidh, a earla, eochair thogha, tríar ar snúadh áoil agus umha agus fola.
39. Binni a theanga iná téda ${ }^{2}$ meannchrot, agá míndeilbh ón sádhail súan, a lámhaibh suadh agá sírsheinm.
40. Asé sin, ar slíagh na cathrach, ar gceann báidhe, aonmhac Eithni, saorshlat ar nach beirthi báire.
41. Brosdaighthear, ar Túath Dé Danann, doirseóir Teamhra, d'ionnsoighi na cráoibhe cubhra, aoidhe Eamhna.
42. Masa thú an t-Ioldánach oirrdearc an airm ghlaisgéir, as mo chean duid, ar an doirseóir, a bhuig bhaisréidh.
43. Tair san dúnadh, ol an doirseóir, Día do bheatha. Ac, na hosluig, ar an tslat lér cosnaid creacha.

[^198]44. Teamhair Airt go hēirghi gréini, geis don dúnadh oslugadh ${ }^{1}$ an dúin do dhénamh, arná dhúnadh.
45. Nír mhill geasa ghrianáin Teamhra an teaghlaigh airmdheirg, tug céim ar gcúl, rug léim isan² mhúr don mhaighleirg.
46. Ní bhrisfeadh ar bhailg ós abhainn, d’aighthibh ógbhonn, léim áith éttrom a dhá ghégbhonn réidh mbláith mbrógdhonn.
47. Mar sin táinic go Teagh Miodhchuart na múr ngreadhnach, dár fhóir a fholt gleannach gabhlach teallach Teamhrach.
48. Aithghin Logha nó Lugh a-rís, go ráith Luimnigh, a thréidhi acht gan teacht go Teamhraigh, ceart ro chuimhnigh.
49. Cosmhail cúairt Logha ó lios Eamhna d'foghluim ghairggníomh, as cúairt Muiris go lios Lonndún, d'fios an airdriogh.
50. Comhachta mheic Lir is Logha ag leannán Manann, cian úatha é 'sa dhíall ré Túatha Dé Danann.
51. Mac Eibilin, airgnioch Gaoidhiol, gearr go ttora, dár gcabhair tar mearthuinn mhara, leathchuing Logha.
52. Ag deaghoil Éirionn re hurchra da folt cloidhfionn, ar Lugh 's ar Thúath ${ }^{3}$ Dé Danann é 's a foirionn.
53. Do lionadh a los a athar as úr méine, an dá oilén arda úaine, Alba is Éire.
54. Cuimhnigheadh céimionna a athar as úr deighṡén, as amhlaidh as cóir gach coilén, mar a cheinél.
55. Tiomna do fáguibh a athair gá folt cráobhnocht, a rath 'sa ainm is a farlacht is a a abhdhacht.
56. Bíaidh, madh aithreamhail a aigneadh, dá fios téidsi, tuilleadh buidhe an íarla óigsi ris an éigsi.
57. Nā grádoigheadh mac meic Gearailt go ttuga ucht na slógh slairdheas, ól na áoibhneas.
58. Fuilngeadh ag fóirithin Banbha da bharr taistiogh siobhal mara aidhbhle as uisgeadh ainmni is aisdear.

[^199]59. Mumha í Luighdioch nā léigeadh, gomadh leis féine an fonn úr úaine, Gúaire súl gcorr ara chéili.
60. Íarla óg Deasmhumhan dlighidh dion na ttrumshlógh tugsat do ghéig Ruidhe roghrādh uile d'urmhór.

## Translation

I. Great is our anger against thee, O king of England; the ground thereof is that, though her spirit was high, thou hast brought sorrow upon Banbha.
2. Because her lover is kept away from her, who had knit great fortune to her, the isle of Erin, the bright sunny one, is a sorrowful woman.
3. Cold towards them is my heart's intent-hard is the contestthough there is no fear of the blighting of the Saxons by my anger and my sighing.
4. Through the journey of Maurice, the earl's son, away from Banbha, the sorrow of it and the indignation pass not from her-great is her reason for this.
5. The poets of the island of Fódla are sorrowful, and their fair ladies, since the young hero of Iomghán left Gabhrán's bright fortress.
6. Since the day that the son of Fitz Thomas, of the tall figure, departed, we look not westwards, but our eyes are turned to the east after him.
7. Until I see Sir Maurice's sail above a ship, I watch the company of every vessel from the bosom of every cliff.
8. Strange that I should rage against the king of England, of the gallant hosts, because he keeps with him the bright joyous one in mirth and revelry.
9. Sir Maurice is the fosterling of the king of England, good is his protection ; secure in his palace is the earl's son, the fresh lovely scion.

Io. 'Tis no marvel if he do good, so excellent is his training; no marvel if men envy his fortune, so great is his gaiety.

I I. The delights of England, the free circuit of Ireland, are with his shining locks, a man under whom shall be the impetuosity of every troop, the earl's heir.
12. With his fosterer, the king of England - a mighty expeditionhe goes to France, the beautiful land of swans, of feasts, and of dark wine.
13. The tidings of France, the knowledge of England-a merry tale -will be found with the skilful (youth), so tall and bright, elegant and white-footed.

## GOFRAIDH FIONN Ó DÁLAIGH

14. I am grateful to his teacher-he gathers teaching-yet I am vexed that he has so long detained the gentle fair-handed (youth).
15. The leader of the fair host has excelled in understanding and comeliness and success-in short he has won all the varied excellences, with the excellence of sweetness of voice.
16. His prize for valour, or his prize for wisdom, or the prize for his beauty or generosity, are not granted to any heir of his age.
17. Strength in luck, luck with success, a modest heart, understanding to keep him, curling tresses he has gotten.
18. When he is injured, the sod that chances to be under his white foot certifies it to the handsome brown-haired (prince).
19. The planets declare it to his curling hair : whoever betrays him, crime against the prince is senseless.
20. The like of Maurice, who exalts bards, was Lugh Longhand: equally great in knowledge was the valiant compeer, equal in sway.
21. At the age of Maurice, the earl's son, he delivered Banbha, when he, the mighty tree of Bladhma, defeated the race of the Fomorians.
22. At Eamhain in the east Lugh, the darling of Tara, beheld Tara, Rampart of 'Té, whereupon he reached it after searching the whole earth.
23. Lugh, champion of our choice, finds the stronghold closed; he goes to the smooth even-surfaced wall, he strikes the knocker.
24. Quoth the doorkeeper to the good warrior, stern in anger of onset, 'Whence cometh the man keen young and tall, smooth bright and red-cheeked ?'
25. To the doorkeeper answered Lugh, who shunned no fight: 'I am a poet from Eamhain of the Appletrees, of swans and yewtrees.'
26. 'It is not lawful for thee,' said Tara's doorkeeper, 'to come to our good house: there is a man of thy art in the stronghold, thou bright and ruddy one.
27. The House of Miodhchuairt belongs at this time to the sons of Ethliu ; we must tell of the qualities of that fair curved house.
28. One of the qualities of the House of Miodhchuairt, whose borders are smooth, is that two of one craft are not admitted, thou fair and furious one.
29. So many are the arts of the Tuath Dé Danann, bestowers of cloaks, that thou must bring them an art that they know not.'
30. 'Among my arts-conceal it not in the house wherein the company is-is leaping on a bubble without breaking it : go to recount it.

3I. Snámb ós éttrebir, carrying a vat on the ridges of the elbows, these two arts are in my power: go to declare it.
32. Ask whether there is one of the vigorous throng that can do them; the running of any steed on the fair soft green-we promise a race.
33. What I recount is here as an extra beyond them, and in their own arts none is so expert as I : I speak not in anger.'
34. When he had heard what the youth uttered, great was his haste: swiftly went the doorkeeper to converse with the 'Tuath Dé.
35. 'A man at the door,' said the doorkeeper, 'whose match were hard to find : every art is in his power, the comely brown and ruddy one.'
36. 'If Lugh were there, the beloved of Fódla in whose lands the rivers rest,' said the 'Tuath Dé Danann, 'it were a fitting time for him.'
37. 'To win the prize of beauty from the man at the door-a ground for hesitation-there has not been made of earth or water a creature entitled to that.
38. His side, his face, his hair-key of choice-three in hue like lime and bronze and blood.
39. Sweeter his tongue than strings of lutes, deftly shapen, that make slumber soft, ever played in the hands of masters.'
40. 'That,' said the host in the stronghold, 'is our beloved chief, Eithne's only son, noble rod that cannot be defeated.
41. Let Tara's doorkeeper make speed,' said the 'Tuath Dé Danann, ' to meet the fragrant branch, the guest of Eamhain.'
42. 'If thou art the famous Ioldánach of the sharp blue weapon, welcome,' said the doorkeeper, 'thou soft one of smooth palms.
43. Come into the fortress,' said the doorkeeper, 'welcome!' 'Nay, open not,' said the rod by whom spoils were wrested.
44. 'Until sunrise it is a prohibition to the fortress, Art's Tara, that it should be opened, when once it has been closed.'
45. He broke not the prohibitions of the sollar of Tara, of the redweaponed houschold; he stepped back, he sprang from the sloping plain into the fort.
46. The light brisk leap of his graceful feet, smooth soft and brownshod, would not have broken a bubble upon the river with the tips of youthful soles.
47. Thus he came to 'Teach Miodhchuart of the joyous walls, whereby his hair full of hollows and branching tresses aided the hearth of Tara.
48. The equal of Lugh, or Lugh himself again, to Limerick's fort ; save that he came not to 'Tara, truly he has recalled his qualities.

## GOFRAIDH FIONN Ó DÁLAIGH

49. Alike are the journey of Lugh from the court of Eamhain, to learn fierce deeds, and the journey of Maurice to the court of London, to visit the high-king.
50. The darling of the Isle of Man has the power of Ler's son and of Lugh : though far from them, he is like to the Tuatha De Danann.
51. Avelina's son, slayer of the Gael, soon will he come to our aid across the wild surge of the sea, he the counterpart of Lugh.
52. When his hair in fair ridges severs Erin from decay, he and his men stand for Lugh and the Tuatha Dé Danann.
53. By his father, of quick ardour, have been filled the two lofty green islands, Britain and Ireland.
54. Let him remember the steps of his father, whose good fortune is fresh : every whelp should be like his breed.
55. The bequest that his father left to his bare curly locks was his success and his name and his earldom and his comeliness.
56. If his temper be like his father's-they go to test it-this young earl will honour the poets.
57. Till he turn the face of the hosts to the south-west, let not the son of the Geraldine, of the noble shapely hands, love banqueting or pleasure.
58. While with his soft clustering locks he delivers Banbha, let him endure the traversing of the mighty deep and the waters, patience and hardship.
59. Let not the soft-eyed Guaire leave Munster, land of Lughaidh's descendant, for any other, until the fresh green land is his own.
60. The young earl of Desmond is entitled to the defence of the mighty hosts : well-nigh all of them love the branch of Ruidhe.

## Notes

2 b . I have taken d'uaim as 3 sg . pf. of the denom. uamaim (Dinneen), and $l k$ as prep. with suffixed pron. But perhaps uaim is the vn. and $l k$ the simple prep. The phrase would then mean 'to be united (lit. for uniting) to great fortune.'

4 c. It would be simpler to read $a$ brón and a diomdba, 'her sorrow and indignation.'

5 b. One would expect a fionnmbnaitb 'her fair ladies.'
c. Gabbrain may be Gowran, Co. Kilkenny.
d. Imgbin is often referred to in bardic poetry as an ancient court. Its position is uncertain.
20. The story of Lugh's arrival at Tara is told, with different details, in the Second Battle of Moytura, edited by Stokes, RC. xii. 52 ff.

22 b. Eambain: not the Ultonian Emain Macha, as is shown by §25, but the mythical Eamhain Abhlach. Cf. Meyer, ZCP. viii. 194.

30 c . leim ar bhailg: here and in § 46 the poet seems to have meant 'leaping on a bubble.' For other explanations of this feat see Windisch, TBC. p. 360, where léim dar boilg is translated 'Springen über eine Kluft,' and Meyer, Contt. 236 n .

3 I a. snánh ós éttréir lit. 'swimming over weakness.' Dr Meyer suggests that it may mean 'swimming beyond exhaustion.' I do not understand the feat alluded to.

32 c . riagh: is this $\mathrm{O}^{\prime} \mathrm{Clery}$ 's riadb .i. rioth, or riadh .i. smacht? Or is it an idiomatic use of riagh 'torture,' implying an offer to outrun any steed on the green?

42 a. Ioldanach 'man of many arts' a common designation of Lugh in Oidhe Chloinne Tuireann etc.

49 c. Lonndinn: this rare form of the name, usually Lundain (Londain) or Lunnainn (Lonnainn), is used to form consonance with gairggniomb and airdriogh.

51 a. According to a pedigree given in the Journal of the Historical and Archaeological Association of Ireland, Third Series, Vol. r, p. 46 r plate, the mother of Maurice was the first earl's first wife, Margaret, daughter of Richard de Burgh, the Red Earl of Ulster. The Dict. of Nat. Biography gives her name as Catherine. Avelina, Aveline, or Evelina, daughter of Nicholas Fitzmaurice, third Lord Kerry and Lixnaw, the earl's third wife, who appears in the Patent Rolls in I344, was really the mother of Gerald the Poet. In one of the poems referred to in the introduction Godfraidh Fionn addresses Gerald as a mbic Aibbilin.
53. Alba may here stand for Britain, as in the older language $A l b u=$ Albion.

59a. $\delta$ gen. sg. $i$, before proper names is unstressed, and counts as an iarmberla in bardic poetry. The caesura is marked in the MS. after the seventh syllable, but we might also divide the line after the fourth syllable.

Osborn Bergin.

Dublin.

## O'CONOR'S HOUSE AT CLOONFREE

Several collections of bardic verse preserve two curious compositions on a house erected at Cloonfree by Hugh son of Owen son of Rory O’Conor. This chieftain was inaugurated as $\mathrm{O}^{\prime}$ Conor Connacht in 1293 and was killed after a boisterous reign in I 309 (cp. O'Grady Cat. p. 348). The poem printed below is noticed by O'Grady in his Catalogue (p. 353). The other composition on the same subject is contained in the Book of the Dean of Lismore and is, owing to its elaborate structure and the technical details it enumerates, the most formidable specimen of bardic workmanship with which I am familiar ${ }^{1}$.

The present poem is preserved in a number of paper MSS of varying critical importance. The text here given is that of a Stowe MS in the Royal Irish Academy marked A v 2. Variants are printed at the foot of the page from the O'Gara Book $(F)$, the O'Conor Don's Book $(C)$, and two R.I.A. MSS marked $23 \mathrm{~L} \mathrm{I}_{7}(L)$ and A iii $2(A)$. The copy of the poem in the last named book is fragmentary, as it ends at st. 20. In the other MSS the arrangement and number of the stanzas varies considerably ; C as usual has the greatest number, viz. 56, whilst L only contains 37. The author is variously styled Aongus Rúadh Ó Dáluigh (A v 2), Aongus mac Cearbuill Ruaidh ( $\mathrm{F}^{2}$, A ),

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Aonghus Ruadh mac Donnchadha mic Aongbais (L), Aongus Ruadh Ó Dálaigh (C).

The identification of the site of the pailis is attended with no little uncertainty. Through the kindness of O'Conor Don I was enabled to visit Cloonfree on August 24, 1912. The present Cloonfree House occupied by Mr O'Byrne, J.P., is situated on the north shore of Cloonfree Lake about 8 English miles to the south-east of Rathcroghan and near the high-road leading from Tulsk to Strokestown. It is built into the ruins of an extensive mansion of which I have been unable to glean any particulars. As far as I can judge, this is not the structure referred to in this poem. A pailis belonging to Hugh O'Conor is stated by the annalists to have been raided and burnt by MacDermot in I 306. This pail's is identified by O'Donovan with the remains of a fort lying to the north of Cloonfree House on the north side of the high-road mentioned above. He quotes from a description furnished by Rev. John Keogh of Strokestown for Sir William Petty's intended Atlas in 1683: 'Here is a kind of fort (like Rathcroghan) four-square, which anciently was the King of Connaught's palace, but so very long ago that the very ruins of the building, if there were any considerable, are defaced, and no remainder of it to be seen but the said fort, the wall whereof is only a green bank, together with some broad pavements annexed to it.' O'Donovan adds: ' The fort here described forms a square, the side of which measures fifty paces in length; but it does not bear any resemblance to Rathcroghan, as Keogh asserts.' The fort is not a perfect square and is surrounded by a moat. Last year when I visited it, two men were cutting hay in the enclosure. The whole place is very much overgrown, as may be gathered from the photograph here reproduced, so that no trace of masonry is anywhere visible.

The cuilteach ('back-house') referred to in st. 3 I has long been a puzzle to me. It is also mentioned as a


THE SITE OF O'CONOR'S HOUSE


RATHCROGHAN
prominent feature of O'Conor's house in the other poem on the structure :

> Luadham cuilteach na cclar ngorm trena smál ni duinter dealbh teach foonn is fraoch ar arm is balbh gioth os cionn a chearn.
' Let us make mention of the back-house with bright beams, with its meanness beauty is not shut out; a fair dwelling that is enraged against weapons, the wind is hushed around its corners.' The ordnance-survey map shows the foundations of a second fort a little way to the north of the supposed site of the pailis. It seems possible that this is the cuilteach to which reference is made. Was it intended as a kind of outpost or guard-house ?

I desire gratefully to acknowledge the generous assistance of Professor Bergin in the present attempt to elucidate this poem. He has corrected many mistakes and made numerous valuable suggestions. It was he, moreover, who drew my attention to the copy of the poem in Stowe MS A v 2, which I had overlooked.

I am further under great obligation to Miss Eleanor Knott who has kindly collated the text of the MSS in the Royal Irish Academy which have been utilised for this edition. To Professor Douglas Hyde I am also greatly indebted for verifying the readings of the O'Conor Don's Book.
I. An tú ạris, a ráith Teamhrach ? do-chláochláis cruth ildhealbhach; fúarais gnáoi 'san riocht roimhe, gé 'táoi ar sliocht na seanchuire.
2. Mo chean aris dod reachtaibh, a thaisgealta an tairrngheartaigh! ní facus úaim ríamh romhe do sgíamh úair budh aidhbhsighe.
3. Do-thógbhais ceann a gClúain Fráoich ar leirg úaine an feóir fionnmháoith, a ráith cheathardhruimneach Chuinn leathan-bhruighneach bhláith bheandchruinn.
4. Do-hainmnigthe eacht oile ó Chond thú, a threabh Láoghaire! fearr liom hainmniughadh ó Aodh, a s̊liom bhairrliubhar bhárrcháomh!
5. Muna tusa Teamhair Chuind, a theaghdhais atá aguinn, ní deárnadh d'úaim ríamh roimhe dhá thrúaill chríadh badh cosmhuile.
6. As uille iná Crúacha Chuinn an múr-sa mhílidh Umhaill, ré múr Teamhrach do-toimhseadh an dún dealbhach dorusgheal.
7. Ar aithris Teamhrach Dhá-Thí do-ordaigh mac mhic Rúaidhrí an ráith sidhghreadhaigh sailghidh bfínfleadhaigh bhláith bhúabhaillghil.
i a. rath F, ráth A. b. chláochlais C , chlaochluighis L , chláochladhais F , claochlus A. c. san F, sa C, L; reimhe C, L. d. atáoi F ; ṡliocht L; na seanchuire] ar sáoirsine $\mathrm{F}, \mathrm{C}, \mathrm{L}, \mathrm{A}$.
2. $\mathrm{F}, \mathrm{A}$ invert 2 and 3. b. thaisgéaltaigh C ; an F, om. C ; tairngeartaidh F , tairngerthuigh L . c. facus] faca $\mathrm{F}, \mathrm{L}, \mathrm{A}$; úaim F , thúaim C , uaibh A ; reimhe $\mathrm{L}, \mathrm{C}$. d. aibhsighe C , aibhsidhe F , aibhseidhe L .

1. Is it thou once more, Rath of Tara? thou hast changed thy various shape ; thou hast found favour in thy old guise, though thou art descended from the ancient hosts.
2. Hail again to thy shapes, thou that art proved to be (the dwelling) of the prophesied one (?) ! never before have I beheld thy beauty at any time when it was more wonderful.
3. Thou hast appeared in Cloonfree above the verdant slope of the fair-smooth sward, rath of Conn of the fourfold ridge, spaciously palatial, smooth, with round pinnacles.
4. Once thou wast named after Conn, abode of Laoghaire; I rejoice that thou takest now thy style from Aodh, thou polished, resplendent one of the long battlements.
5. Unless thou be Conn's Tara, mansion that now is ours, never have there been framed two shells of clay more alike.
6. This rampart of Umhall's champion is greater than Conn's Croghan; the shapely fort of burnished doors has been made equal in dimension to Tara's stronghold.
7. In imitation of Dathi's Tara did the son of Rory's son order it, the rath of willow-wands with prancing steeds(?), festive, smooth, glistening with drinking-horns.
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8. Nógo ndeárna an t-Áodh Eangach an dún-sa ạ dheilbh cláoin-Teamhrach, ní bhíodh acht lúadh ráidh reimhe ag slúagh Fáil 'mun bfaistine.

8 A. Lór do dhíon Fódla ạ foghail dioga dhúin Í Chonchobhair slios a hiomdhuidhe is í as ferr do ní ionguire Eirionn.
9. Re linn Aodha na n-arm nocht, gé fúair rath ríoghraidhe Condacht, ní rúacht glas roimhe ar a rath go snas chloidhe na cathrach.
10. Nior cruthaigheadh riamh roimhe on mbaile a mbíodh Láoghaire slios mhúir d'fíonbhroghaibh budh fearr d'úir nó d'fiodhbhodhaibh Éireann.
II. Díol beandochta bas an tśáoir lér cumhdaigheadh an chatháoir; níor chum bas ughdair oile snas cumhdhaigh budb cruthaighe.
12. Do-bhí cuid d'Áodh an airm chuirr ar chuma ạ chloidhe dhíoghuinn, an sáor asé do-snoidheadh 's as é Áodh do-orduigheadh.
13. Ní heasbhaidh don bhláith bháirrslim ráaghail ghrinn nó gabháilsıreing d'éis súltomhuis an deirg dhuinn 'mun leirg ndrúchtśoluis ndíoghainn.
8. om. $\mathrm{F}, \mathrm{A}$. In L follows 14 . a. nocha derna C , nógo nderna L . b. dúnso L ; dealb C ; chlaoint. L. c. biodh C , raibh L ; luagh L . d. bfáal L ; bhfáisdeine L . 8 A. Only in C.
9. om. L. In F follows 11. Order in A, F 10, $11,9 . \quad \alpha$. aodha $\mathrm{F}, \mathrm{A}$, aodh C . b. ge F, cia C, go bfuair A; riogr- onos A, rioghradh Connocht F (recte). c. ni ruacht] ní riacht C , nior iaidh F , nior iadh A ; a A , an C . d. go F , gan C ; chloidhe A, cloidhe F.
8. Until Aodh Eanghach constructed this stronghold on the pattern of sloping Tara, up to this Fal's host knew naught of the prophecy save the report.

8 A. The dykes of O'Conor's fort suffice to protect Fodla from invasion; the face of its embankment it is that most effectually affords protection to Ireland.
9. Before the time of Aodh of flashing arms, though the kings of Connaught were successful, never did lock close on their treasure up to the design of the citadel's moat.
10. Since the stead in which Laoghaire was wont to dwell never hath there been constructed among fair mansions of the clay or timber of Ireland a stouter rampart face.
II. Worthy of blessings is the hand of the mason by whom the (royal) seat was reared; never did hand of any other mason fashion ornamented pile more graceful.
12. Great is the share of Aodh of the smooth armour in shaping the stout dyke ; the mason indeed wrought it but 'twas Aodh that planned it.
13. The gentle man of the soft locks needed no exact rule or plumbline, after the ruddy brown prince had cast a measuring glance round the ample dew-spangled slope.
10. om. L. In F after 6, in C after 7. a. cruthaghadh F , cruitigh- A . b. on mbaile F , an baile $\mathrm{A}, \mathrm{C}$; na mbiodh F . c. slios múir dfionnbroghaibh F , ucht múir fionbroghaid C , slios múir dfionnbruighin A ; dobferr A . $d$. nó C , na F , no A .
i1. om. L. a beannachta F , bennacht C , beannoctha A ; bos C . b. lér $\mathrm{F}, \mathrm{A}$, rér C ; an chatháoir C , in geatháoir F , an catháoir A . c. chum] snoigh C .
12. In L follows 6. In C the order is 11, 15, 16, 13, 12, 17. In F follows 9. a. mór cuid Aodha an airm cuirr F (this is translated), dobhí cuid Aodha etc. L, C, A. b. a ccuma C, ag cuma A, do chuma F, cuma L. c. ṡnoigheadh F, ṡnoighedh L, tsnoigh- A. d. 's F, A, om. C, L.
${ }_{13}$ a. ní hasbuidh F , ni heasb- A , nir besbhaidh C , ní thesda L ; bairssilim F . b. grinn F ; no A , na F , ná L ; gabhailşing L , gabhailsring F , ghabhuilsring A . c. súltomhais $\mathrm{F}, \mathrm{C}$, tšúltomh $u$ s A , súltomh $u$ s L . d. ndruchtsolus L ; ndioguinn C , ndioghaind F , ndioghuinn L, A.

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14. Aonmhúr atá ạg Áodh Eangach, seacht múir fá mhúr cláoin-Teamhrach, na seacht muir úaine oile do súidhe úaine ạn t -éncloidhe.
15. Gan mheadhair mur mhuirn a slóigh, gan gháirdiochus mur ghnáoi comhóil, gan coimhmbrioghmar a cuma do ṡoighniomhradh saoghulla.
16. Ráith Áodha 'na haimsir fein créd acht Tráoi oile iscéin? ionann gill gnáoi a fleadhóil 's don Tráoi lé linn Láimheadhóin.
17. Pailis lonrach leomhain Chuilt as fiadhnach ar feadh radhairc, a beith úaidh eadh a uidhe nóor smúain fer a fiafroighe.
18. A fiarfoighidh dob áil linn tré allmhurrdhacht a hinnill an d'fiodhbhaidh nó d'úir Bhanbha don fiodhraidh uir allmbardha?
19. Nó ạn é brugh na mbeand corcra so ar ndul a ndeilbh sáoghalta ar mbúain a draoidheachta dhe do sdúaidh bhráoinealta Bhóinne?
20. Nó ạn budh í Eamhain Abhlach an chinnlitir chomhardhach do-seól go gort Chuinn chugainn dár nocht druim a donnphubuill?
21. In C follows 35. $a$. énmhúr $\mathrm{F}, \mathrm{C}$; atá] tarla A . b. fa mhúr chláointeamhrach $\mathrm{F}, \mathrm{L}, \mathrm{A} . \quad$. do súidh $\mathrm{L}, \mathrm{C}$, do ṡúigh A (recte) ; úainne A ; an táonchloidhe $C$, L. In place of $c . d$. F has ni raibh acht luadh raidh reimhe ag sluagh Fáil mun bfaisdine from st. 8.
22. om. F, A. In L the order is $12,13,14,8,15,17 . a$. mur] mar $L$, gan C ; sloigh $\mathrm{C}, \mathrm{L}(?)$. b. gairdes C , gháirdios L (sic leg.) ; a comhóil C, L (sic leg.). c. coimbrioghaibh a coma $C$, coimbríoghmhar a cumtha L. d. soighniomhradh $L$, soighniomhaibh $C$; saoghalta $C$, saoghultha $L$.
23. om. L. a. haimser F, aimsir C. b. eile F ; issein F . c. ionann]

## O'CONOR'S HOUSE AT CLOONFREE

14. Aodh Eanghach has but one rampart, round the rampart of sloping Tara there are seven; the one dyke has swallowed up from us the other seven green walls.
15. There is no delight comparable to the mirth of its retinue, no pleasure like to the aspect of its banquet, no triumph of skill in this world (?) equal to its formation.
16. What is the rath of Aodh in its own time but another Troy? a marvellous identity is that of its carousing with Troy in the day of Laomedon.
17. The resplendent palace of the Lion of Colt is conspicuous as far as the eye can see; were it distant the space of a (day's) journey, no man has ever thought to inquire concerning it (i.e. it can at once be recognised by its splendour).
18. Seeing the strangeness of its design, we would fain ask whether the novel strange woodwork is made of (materials) from the forests or soil of Ireland?
19. Or is this the bright-turreted mansion which has assumed a mundane form and has cast aside its wizardry for the snowy-white chief of the Boyne?
20. Or is it the distinguished capital-letter Emain of apple-trees which has come to Conn's domain, whereby it has exhibited the roof of its dark pavilion?
ingnadh F (this is translated), is ionad C ; medhóil C . For this line A has breith a gill ar ghnáoi a fledhóil. d. sa tráoi $\mathrm{F}, \mathrm{C}, \mathrm{A}$; re linn $\mathrm{F}, \mathrm{C}, \mathrm{A}$.

17 a. pailis $\mathrm{F}, \mathrm{A}$, pairís C ; leoghain F , leoghuin $\mathrm{L}, \mathrm{A}$; cuilt F . b. as A , is F , om. C ; fíadnach C, fiaghnach F ; ar L , re $\mathrm{F}, \mathrm{C}, \mathrm{A}$; a radhairc C . c. a bh. F, L, a bedh A ; edh $\mathrm{A}, \mathrm{L}$, feadh $\mathrm{F}, \mathrm{C}$; a] om. $\mathrm{C}, \mathrm{L}$; uighe $\mathrm{L} . d$. fiarfruighe F , fiarfoidhe C .

18 $a$. fiarfruidhe F , fiafroidhe L , fiafruighe A . b. tré $\mathrm{L}, \mathrm{A}, \mathrm{C}$, le F ; allmhurdhacht L , allmurdhacht C , hallmuracht F . c. no an dúir L , nó dúir C . d. fioghraidh F , fiodhruigh L , iobhraith C , fiodhr- A .

19 a. ccorcra F, L, C, senta A. b. so C, om. F, L, A ; ṡaogalta C, saogholta L; draoidhochta F, draoitheachta A. c. sé ar mbuain F ; draoighechta C, dhraoighechta L, droidheachta F , draoidheachta A ; dhe] dhi A. d. bhráoinealta] bráoinechta L, C, bhráoineachta A, bhráoinsneachta F (sic leg.) ; bóine F , boinne C , bhóine L, bhoinni A.
20. C inverts 20 and $2 \mathrm{x} . a$ an budh i F , an í L . b. ceainnlitreach F , ceinnlitir C , cinnlitir A ; chomharrthach C , chraobharmach A , comhardhach F , chomhardhach L. c. do sieol, dar seol C, deitill L, ar tocht F, A; gort, port F, C, A; cuinn C, ccuinn L; cuguinn F. A stops here.

## E. C. QUIGGIN

21. Nó ạn í Ráith Crikachna ạdchíu thoir ar dtocht go Clúain Fráoich féraigh ? ni uil thíar acht a taidhbhse, dochiam thoir a tuaraim-se.
22. Foicse thoir do thigh Chruachna clúmh bheithe, bárr úrlúachra; amhghoire thíar iná thoir sgíamh chrannghoile do Chrúachain.
23. Tréigion mhúir Cbruachna ar Chlúain Ḟ ráoich neamhghuth d'Áodh an fuilt fionnmháoith; lugha as amhghar d'fior Eanaigh adhradh d'fiodh is d'inbhioraibh.
24. A n-ucht uisge agus feadha doniodh Fionn na foirgneadha, mur ta ạn chaithir ag cionn Breagh do-aithin Fionn an foirgneadh.
25. Gar fíoruisge dha fleadhaibh, gar fiodhbhaidh dá foirgneadhaibh, fírghar gach blad da búadhaibh, gar mínmhagh dá marcṡlúaghaibh.
26. Atá búaidh iongnadh oile ar chathraigh chinn Máonmhuighe, sáoraidh áongha í ar olc agus í ag caomhna Connacht.

26 A. Sáoraidh an Fódla ar fogail dígheann dhúin Úi Conchuphair, do réir fiodhbhuidhe is $\dot{i}$ is fearr doní iongaire Éireand.

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## O'CONOR'S HOUSE AT CLOONFREE

21. Or do I descry yonder Croghan's rath which has come to grassy Cloonfree? to the west there is only its phantom, to the east we see its semblance.
22. Nearer in the west to Croghan's hall is the foliage of the birch, the harvest of rushes; more distressing for Croghan is the appearance of the trees in the west than in the east.
23. To abandon Croghan's rampart for Cloonfree is no reproach to Aodh of fair-smooth locks; for the man of Enach 'tis less distressing to cleave to forest and streams (or pastures).
24. Against a stream, against a wood Finn would make his dwellings; as is the city over Brega, so did Finn ordain for his dwelling.
25. Spring water at hand for its banquets, wood at hand for its buildings, close at hand each requirement, pasture at hand for its droves of steeds.
26. The stronghold of the lord of Maenmoy possesses another strange property, a single spear will free it from harm although it defends Connaught.

26 A. The fastness of O'Conor's fortress delivers Fodla from plunder; in respect of (spear-)shafts 'tis it that best guards Ireland.

[^203]26 в. Ni comfad amuidh 's amach urchar um ráith rígh Temhrach, fir 'ga nguin impe d'foghaibh nar chuir innte d'orchoraibh.

26 c. As les do-ráidh rígh Teftha fir treuna ar tí a haimsighthe, as lor aoinfear da madh áil re slogh Gáoidheal da gabhail.
27. Ráith dhíoghainn dhreagan Line ní uil innte ạcht áoinsilighe, as lór d'áoinfear dá madh áil ré slógh Gáoidheal dá gabháil.
28. Atá ciorchall chláraigh dhuinn ós cionn an chloidhe dhíoghuinn, ní bfuil 'sa chearchall cháomh chlár leathtrom na cláon ná cleathrán.
29. Atá gasraidh mhór mheanmnach innte ụm úa na t'Toirdhealbhach, atá ar a sleaghaibh seól áigh ar nach eól d'feraibh eadráin.
30. Atá teach áoibhinn innte dá las lí na firminnte, dá n-íadhthar doirrsi ag ól air budh lór a soillse ó sédaibh.
31. Atá ré táoibh thighe ụ! Chuinn cúilteach corr chlaraigh díoghuinn; as ionsamhraidh thúaidh an teach ó fiogharmaibb fúair fuighleach.

26 B. Only in C and L. a. comhfad amuich L. b. urchur L; rí themhrach L. c. dá ngoin L. d. nach cuir L.

26 c . Only in C. c. $d .=27 \mathrm{c} . \mathrm{d}$.
27. In $\mathrm{F}, \mathrm{L}$, follows 26 A . a. dhioghainn $\mathrm{F}, \mathrm{L}$, áoibhinn C ; dregain $\mathrm{C}, \mathrm{L}$, dreagain $F$. b. bfuil $F$, fuil C , L ; eainsilighe F , éintslighe L , áoinslighe C . c. dáoinfear, aoinfear F , aoinfer L ; áil L , áile F . d. re L , le F ; ghaoidheal L ; dá gabháil L, do gabhail F. In place of c. d. C has as lór dáibhsiughadh a háigh slơgh da haimsiughadl/ dfagháail.

## O'CONOR'S HOUSE AT CLOONFREE

26 B. A cast of a spear in the vicinity of the rath of the king of Tara is not of the same distance from without as from within; around it men are wounded with javelins, though none of them hurl their weapons into it.

26 c . 'Tis of it that the lord of Teffia said, 'Though mighty men assail it, one man suffices, if he be willing, to defend it against the host of the Gaels.'
27. Into the spacious rath of Line's dragon there is only one path; a single man, if he be willing, suffices to defend it against the host of the Gaels.
28. There is a belt of dark boarding surmounting the spacious wall; in the smooth boarded belt there is neither unevenness nor slant nor slope.
29. There is a large, mettlesome band within surrounding the descendant of the Toirdelbachs; their spears have a course in battle which men are unable to withstand.
30. There is a pleasant house within from which the glint of the sky flashes; when the doors are closed during a carousal, it is sufficiently illuminated by the (flashing of) jewels.
31. By the side of the house of Conn's descendant is a smooth backhouse of ample boarding; the house is equal to summer in the north against the cold shrill pang of February (?).

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32. Tógbhaidh lanna láoich Codhuil taithneamh tighe ! $\ddagger$ Chonchubhuir, gur rélltannaidb an teach thall ó chréchtlannaibb chleath gCúalann.
33. Teach comhromhach Chlúana Fráoich ionfúar a tteas, te ạ n-iomgháoith, lór a ionnfúaire 'sa toigh the ón diombúaine goimh gáoithe.
34. Bláithe iná blaosg uighe bruighion bhaidhbhe Cáonrúidhe; teid gan fleochadh gach deór dhe mar dodheochadh d'eón uisge.
34 A . Bu iomdha ạr fud na Banba teacht[a] earraidh allmarrdha, le gialloighribh o Gallaibh 'san riaghuilgil reltannaidh.
35. Iomdha ạ ráith Áodha ạn airm cuirr ag maicne súairc síol núa-Chuinn tí ạ ngrúaidh ar ngabháil datha ó anáil fúair fíonbhracha.
36. An búdh é an t-Áodh oirrdheirc luidhios ar lucht uabhairneirt? ní cás gég Almhan d'aithne, créd adhbar a fiosraighthe?
37. Dó-haithéntáoi ạn t-Áodh Eangach ag colamhnaibh cláoin-Teamhrach d'éis a ndeárna Flann file do bharr Eamhna d'faistine.
38. Aithníd dráoithe ạr dhealbhaibh néll flaith Cruachna na gcolg slimger; aithnid banfăidh láoch Line ar anail gháoth nginutlighe.
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## O'CONOR'S HOUSE AT CLOONFREE

32. The blades of Codhal's champion raise a sheen in O'Conor's house, so that the house yonder glitters with the wound-dealing spears of Cuala's warriors.
33. The prowessful house of Cloonfree is cool in heat, warm in tempest; sufficient the coolness in the warm house by which the sharpness of wind is (made) briefer.
34. Smoother than the egg's shell is the mansion of Caenraighe's Raven ; every drop runs off it without wetting, even as it would run off a water-fowl.

34 A. Throughout Banba there were many envoys in outlandish attire accompanying noble hostages from abroad into the uniformly-light starbright (abode).
35. In the rath of Aodh of smooth arms amid the pleasant youth of the race of the new Conn, many is the spot in the cheek flushed with the cool breath of bright malt.
36. Is this the illustrious Aodh who represses the arrogant? 'tis not troublesome to recognise the scion of Almu, what is the reason for asking?
37. Aodh Eanghach would have been recognised by the columns of sloping Tara, after the prophecy which Flann the Poet made of the chief of Emain.
38. The druids recognise the king of Croghan of the slender-sharp weapons by the shapes of clouds; by the breath of magic winds a prophetess recognises the warrior of Line.

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39. Do-bhí Modh Ruidh ri na ndrúadh, do-bhí Cathbhuidh is Ciothruadh, do-bháoi Feircheirt an fisidh ag neimhcheilt gnáoi ạn ghille-sin.
40. Tiacht an toraidh, teas na sion, cred sin acht signe áirdriogh? a aithne ar bhaidhbh Lúain ni linn an t-ainm fúair go $n$-aithnim.
41. Ataid cuibhreach chláir Bhanbha d’fáiltiughadh an Áodh-anma; risan Aodh-ainm do-fóir inn dochóidh gach áon-ṡnaidhm d'Éirinn.
42. Créd acht comhartha flatha gleó Áodha a n-Árd Cháonacha? tainig sé a n-ágh iomlán, búdh slán é ón ithiomradh.
43. Dob iongnadh Gháoidhil is Goill do bhreith ar féinnidh Umhuill gan fear ann acht fear faladh 's gan barr Breagh do bháoghlughadh.
44. Níor mheasa lá ạn tachair thíar foraire flatha Gailian; do-chosuin sdúadh [brogha] Bhreagh an búar go dola a ndídean.
45. A ród rúaige chinn Múaidhe a gcrích Bréifne bárrúaine ar chách do-chuir a úamhan, ní fuil fáth a $n$-athslúaghadh.
46. Do-airg fa a crodh gach críoch the, do-airg gach iath um Éirne, seal ar chreachaibh, seal [ar seillg, ag cleathaibh Dean tré dhibheirg.

39 a. modh ruith C , L, madh ruith F ; riogh L ; ndruagh $\mathrm{F}, \mathrm{L}$. b. cathfach L , cathfadh $\mathrm{C}, \mathrm{F}$; ciothruaidh F , ciothrúadh C . c. dobhí C , dobáoi F ; fisigh F , fisigh L. d. ghnaoi L, om. C.
40. om. L. a. tiacht] truime F, C. b. sin C, súd F. c. gan aithne ar baidhbh F (recte); nír linn F . d. an tainın fúair gin go naithnim F (recte). In place of $c . d . \mathrm{C}$ has $41 \mathrm{c} . \mathrm{d}$.
39. Mogruith, prince of the druids, Cathbad and Cithruad, Ferchert the seer, disclosed the description of that warrior.
40. The load of fruit, warmth of seasons, what are they but the tokens of a monarch ? well might we recognise the Raven of Luan, even had I not known the name he has received.

4I. The fetters of Banba's land burst asunder in welcoming Aodh; with this Aodh who has succoured us every bond has disappeared from Ireland.
42. What is the prowess of Aodh at Ardchaonacha but the mark of a prince? he came whole from the encounter, he was free from reproach.
43. 'Twas the marvel that Gael and foreigner should overtake the warrior of Umhall, seeing that there was none present save enemies, without endangering the prince of Brega.
44. In the day of battle in the west not worse was the watching (guarding) of Gailian's prince, (when) the hero of the palace of Brega protected the kine until they had been taken away into safety.
45. In the road of defeat of the lord of Moy, in the land of verdant Breifne, he inspired all with terror, there is no need for a second hosting.
46. For kine he plundered each sunny land, he plundered each district round the Erne, now on foray, now on the chase,...
41. om. C. In L after 39, in F after 38. a. ataid] do sgáoil $\mathrm{F}, \mathrm{L}$ (sic leg.); banbha F, L. b. do failtioghadh F, dfaoiltioghadh L. c. risan L, leisin F.

42 a acht] as L. b. an aird aondatha F , anard chaonnacha C , an árd cánacha L . c. ón ágh L (sic leg.), on ágh F , ón ádh C ; iomslán $\mathrm{F}, \mathrm{L}, \mathrm{C}$. d. sas slán $\mathrm{F}, \mathrm{L}$, is lán C ; iothomradh F , iothiomrádh L , aithiomrádh C .
43. om. F, L. b. do breith ar riogh óg úmhaill C. c. faladh C.
44. In $\mathrm{F}, \mathrm{L}$, the order is $4 \mathrm{I}, 42,45,44$. a. mheasa F , mhes $\mathrm{C}, \mathrm{L}$; tachair C , tóchair L, F; tsíar F, siar L. b. foraire] foirnidheacht F, foroighecht L, fo rioghacht C ; flatha C , L. c. dar chosain F , dar chosuin L , dar cosain C ; stúaidh F, sduagh L, stuagh C ; bhrogha L, brogha F, C ; bhredh L. d. go dola andiden L , ar ndola andíden C , ar ndol anidhidean F .

45 a. tar éis chreiche chrioch mhúaighe F , déis c . s̊luaighidh cinn múaidhe C , déis tsluaigh mhílidh muaidhe L . b. bhreifne F , bhreithni L ; bhárruaine F , bharruaine L . c. úamhain C . $d$. nach bfuil F , nách fuil L ; athşluaghadh L , athsluaghaidh C, athbhualadh F.
46. L omits 46-9. a. fa a crodh] im chrodh F , um crodh C ; an crich the C , gach tir the F. c. creachaibh F; seal ar seilg F, C. d. ag oleathaigh (sic) dean ag dibheirg F , ag clethaibh den ón dibheirg C .

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47. Asé tug, fa turus neirt, a Tír Chonuill creich oirrdheirc, ger bhuing re muir fúair anfaidh búain a gcruidh do Chonallchaibh.
48. Comhuirle úaim d'úaislibh Fáil gér teaguisgthior tuir Ghabhráin, má do-geall rí teacht dá thoigh más lé neart tí ná tíaghthir.
49. Tigeadh más do thabhairt ghiall d'Ưa Chonchubuir chláir Ór Órghiall ; dobheir neart dóibh is dosan slóigh ag teacht dá thogha-san.
50. Áodh Ó Chonchubhuir chlảir Breagh samhuil Logha ạr leas nGáoidheal, cách úain dá chur ceann a gceann agus Lugh ar úaim Éireann. An tu arís a raith Teamhrach etc.
51. Brugh aoibhinn inghine Ụ! Bhriain mar an mbrugh do-bhí a bhfinn-Chliaigh, ríoghan osgordha ạta !̣stoigh, mná rosgorma 'mun rioguin.
52. A inghion reid rígan Dala soillse nảid na sédála, na rioghradh gan bróin mbúabhall a síothbhrogh ól Fionnghúalann.

47 a. isé tug fós foirionn neirt F , as tú tug fa turus neirt C . $b$. a crich chonuill C , o thír conaill F ; creach noirrdeirc C , creach oirdheirc F . c. fa buain ré muir fuair anfadh F , fa buain ré muir uair anfaidh C .

48 b. r of gér erased in $M S$; gioth teagosg ar thuir ngabhrain F , gidh tegusc ar thuir gabráin C (recte). c. ma do gheall rí teacht na theagh F , ma do geall rí tect na thegh C. d. más] ma F, madh C (recte) ; tíaghthir] tigeadh F, C (recte).

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47. 'Twas he that brought-a quest of prowess-from Tyrconnel a famous prize, though reaving the cattle of the men of Donegal was like meddling with a cold, tempestuous sea.
48. I have a counsel for the nobles of Ireland though it be an admonishment with regard to Gowran's prince; if any king have promised to come into his house, if he come with a force, let him not enter.
49. Let him come if it be to give hostages to O'Conor of Oriel's plain; it would secure power to them and to him for hosts to come to elect him.
50. Aodh O'Conor of Brega's plain is like Lug for the welfare of the Gael, each of us places him and Lugh together (i.e. likens them) for uniting Ireland.
51. The fair mansion of O'Brien's daughter is like the mansion that fair Cliu had; a stout-hearted princess is within, blue-eyed maidens surround the queen.
52. The even palace of the princess of Dela is more lustrous than the lights (in it); a royal race with a multitude of drinking-horns is in the golden fairy palace of Finnguala.
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## E. C. QUIGGIN

## Notes.

I b. For the idea cp.
Ciá an chuiirtsi san caislén mór adchim a chrotha ar ccláochlodh
ni nár dbiuin nach aitbním i
an múr ccloichslim adchithi. A v 2 f. 9 b.
6b. Umball = the Owls, Co. Mayo (v. Hogan).
13b. gabbáilsreing, 'fork-string,' I take to mean 'plumb-line' (Bergin).
i $7 a$. Colt occurs very frequently in chevilles in these panegyrics. It appears to be the name of a district between the Boyne and the Liffey. See Hogan.

206 . For the idea of the capital letter see the poem by Geoffrey Finn O'Daly published by Miss Knott in Ériu v. p. 6i.

23 c. As there are so many places bearing the name Eanach (Annagh), it may be doubted if the poet had any particular one in mind.

26 b. Maenmoy was the name of a territory in Co. Galway, now the barony of Clanrickard. It seems to have had Loughrea as its centre.

27 a. Line or Magh Line in Co. Antrim extending from L. Neagh to near Carrickfergus (Hogan).

28 d . cleatbrán or cleatbramh appears to be a synonym of claon. O'Reilly has cleathrámb, 'partiality, prejudice.'

32 a. Codbal, like Colt, is very frequent in chevilles in these panegyrics. It does not seem possible to identify it with certainty. See Hogan.

34b. Caenraighe. The same remark applies as to Codhal in $32 a$. See Hogan.

37 b. The 'columns of Tara' was the name given to four tribes round Tara. See Hogan s.v. Colambna teanna teanıra. Miss Knott suggests that the reading of C should possibly be adopted, and that there may be a vague reference to the story entitled Baile in Scail.

42b. Ard Cháonacha n. 1.?
46 d. Miss Knott compares Druim Den (Ériu iv. p. 170). See Hogan.
51. 'Hugh O'Conor, according to the Irish Synchronisms, was married to Finola, daughter of Turlough O'Brien, who died in 1335' ('The O'Conors of Connaught, p. 128). For Cliu see Hogan.

E. C. Quigain.

## THE NUMBER SEVEN IN SOUTHERN INDIA

The object of the present paper is to draw attention to the frequent occurrence of the mystic and sacred number seven in connection with the religious observances, birth, puberty, marriage, pregnancy, and death ceremonies of the indigenous population of Southern India. The area dealt with comprises the Madras Presidency, and the Native States of Travancore and Cochin. The information, it may be noted, is mainly derived from the seven volumes of my Castes and Tribes of Southern India (1909), written in collaboration with Mr K. Rangachari.

## (a) Religion.

According to tradition, Rāma, on his return from Ceylon, appointed seven guardians of the pass (Adam's Bridge) connecting Ceylon with the Indian mainland.

The sacred river Godavari is believed to proceed by an underground passage from the same source as the Ganges, and reach the sea by seven branches made by the seven Rishis (sages) Kasyapa, Atri, Gautama, Bharadvāja, Vasishta, Visvāmitra, and Jamadagni. The pilgrimage called sapta sägara yātra, or pilgrimage of the seven confluences, is made especially by those desirous of offspring.

Brahmans claim descent from one or other of the seven Rishis. The Telugu Boyas, who claim to be

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descended from the celebrated Rishi Valmiki, have a legendary story of a Brahman who begot children by a Boya woman, and was, on one occasion, met by seven Rishis, who were the incarnations of the seven planets. For his sins he had to do penance, and became the Rishi Valmiki.

The cowry (Cyprcea moneta) shells, which form an essential part of the equipment of a Kaniyan astrologer in Malabar, represent the seven planets. Among the Koragas of the west coast, and some castes in the Oriya country, the custom prevails of naming children after the days of the week, which are called after the planets.

At the sacred town of Conjeeveram are many tanks, by bathing in seven of which, corresponding to the days of the week, any human desire may be gratified, and sins are washed away.

Among the Nambutiri Brahmans of the west coast, the god of love, who is represented by a clay image, is propitiated by unmarried girls with offerings of flowers on seven consecutive days.

At the Sivadiksha ceremony, which is undergone by Variyar (temple servant) youths in Travancore, the candidate takes seven steps in a northerly direction, which are symbolical of a pilgrimage to the sacred city of Benares. The custom recalls to mind the mock flight of a Brahman bridegroom to Benares (Kāsiyātra), there to lead an ascetic life.

When engaged in the propitiation of bhutas or demons at a bhutasthāna (shrine) in South Canara, the officiating priest arranges seven plantain (banana) leaves in a row on the cot of the most important bhuta, and places a heap of rice and a coconut thereon. A seven-branched torch is kept burning near the cot. For the minor bhutas the offerings are placed on three or five leaves.

Sometimes, when a married couple are desirous of having female issue, they make a vow that they will offer to the deity clay images of the seven virgins (Kanniyamma)

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who are represented all seated in a row. The virgins are sometimes symbolised by seven stones or bricks set up within an enclosed space, beneath a sacred tree, or in a miniature shrine. Among the Boyas they are represented by seven small gold pots, and the song of the seven virgins is sung at their weddings. At the festival of the Grāma Dēvata or village deity among the Tamil Pallis, the goddess is sometimes represented by a pile of seven pots decorated with garlands and flowers. In some villages, the deity Kāliamma is symbolised by seven brass pots one above the other, with leaves of the sacred margosa tree (Melia Azadirachta) stuck in the mouth of the topmost pot ${ }^{1}$.

On the west coast, certain religious festivals, e.g. the cock festival at Cranganore, at which large numbers of fowls are sacrificed, and the festival in honour of Bhagavati at the Pishāri temple near Calicut, last for seven days.

At the village of Mangalam in the Tamil country, large numbers of buffaloes are dedicated annually to the goddess at the Kāli shrine. Fourteen of the best animals are selected for sacrifice. Seven of these are tied to an equal number of stone posts in front of the shrine, and beheaded. After the goddess has been taken round the shrine in her car, the remaining seven animals are dispatched in the same way ${ }^{2}$.

By one section of the Dandāsis in the Oriya country, a pig and seven fowls are offered as a sacrifice on the newmoon day, on which the head of a male child is first shaved.

Many Oriya castes are particular with regard to the observance of various Vratams or fasts. At one of these, the most elderly matron of the house performs worship. Seven cubits of thread dyed with turmeric are measured on the forearm of a girl seven years old, and cut off. The deity is worshipped, and seven knots are made in

[^208]the piece of thread, which is tied on the left upper arm of the matron.

At the harvest festival of the Kānikars of Travancore, in order to propitiate the household gods, rice, coconuts, betel, etc., are piled up on plantain leaves at seven definite spots. On the occasion of the seed-sowing ceremony among the agricultural Badagas of the Nilgiri Hills, a temple priest sets out before dawn with five or seven kinds of grain in a basket, and performs certain rites at a selected field.

The number seven is said by Dr Rivers to be especially prominent in the ordination ceremonies of the Todas of the Nilgiris. 'The purificatory drinking out of leaf-cups is always done seven times, or some multiple of seven.' At certain dairies 'there used to be lamps, each of which had seven wicks. Another occurrence of the number seven is in the old dairies of the Nodrs clan, which had seven rooms ${ }^{1}$.'

## (b) Birth.

In various castes, the period of pollution after childbirth lasts over seven days, during which the woman remains in seclusion. Among the Cherumas or Pulayas of the Cochin State, the woman is purified by bathing on the seventh day. The midwife draws seven lines on the ground, and spreads over them aloe leaves torn to shreds. Then, holding a burning stick in her hand, the mother of the infant goes seven times backwards and forwards over the leaves ${ }^{2}$.

Among some castes in the Tulu country of the west coast, a washerwoman ties a thread round the infant's waist, and gives it a name on the seventh day after birth.

In one section of the Tamil Kallans, a first-born female child is named on the seventh day, after the earboring ceremony has been performed.

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At the Chaulam or tonsure ceremony of Brahmans, the father of the child, taking a few blades of the sacred dharbha grass in his hand, sprinkles water over its head, and inserts the blades in the hair of the head seven times, repeating the words 'Oh! divine grass, protect him.'

## (c) Puberty.

In many castes it is the custom that, on the occasion of the first menstrual period, the girl is kept in seclusion under ceremonial pollution for seven days, when she is cleansed by a purificatory bath. Sometimes she remains within a hut, which is burnt down on the seventh day. The hut is, among the Telugu Tsākalas, constructed by the girl's maternal uncle out of seven different kinds of sticks, one of which must be from a Strychnos Nuxvomica tree.

By the Telugu Oddēs a fowl is killed on the seventh day, and waved in front of the girl.

When a Rona girl in the Oriya country attains maturity, she is secluded in a part of the house where she cannot be seen by males, and sits within a space enclosed by seven arrows connected together by a thread.

During the first menstrual period of a Pulaya girl in the Cochin State, seven coconuts are broken, the 'milk' is poured over her head, and the fragments are distributed among the headmen, and seven girls who have been invited to be present at the ceremony ${ }^{1}$.

A Pulluva girl is anointed by seven young women, who make a propitiatory offering to the demons, if she is possessed by any ${ }^{2}$.

## (d) Marriage.

At the betrothal ceremony of the Telugu Tottiyans in the Tamil country, food is given to seven people belonging to seven different septs. Among the Telugu

[^210]Rāzus, seven plates filled with plantains (bananas), betel, turmeric, coconuts, and flowers are placed on a platform within a pandal (booth).

In many castes, the marriage festivities last for seven days, and, on the seventh day, important ceremonies are performed. For example, among the Sondis of the Oriya country, food is placed on twelve leaves, and partaken of by the same number of Brahmans. At a wedding among the Oriya Kalinjis, the bridegroom breaks a pot on the seventh day. At the weddings of the Tamil Idaiyans, seven pots are filled with water, and nine kinds of seedgrain sown in seven trays containing earth. On the seventh day, the ends of the cloths of the contracting couple are tied together and they bathe in turmeric water, the wrist-threads are removed, and other ceremonies performed.

In one form of the marriage rites among the Mukkuvans of Malabar, which are completed in a single day, the newly married couple may not leave the bride's house until the seventh day after the wedding. A necklace composed of twenty-one gold coins is sometimes tied on the neck of a Mukkuva bride.

The materials for the marriage booth which is erected by the Bonthuk Savaras at the home of the bride are brought by seven women. In the course of the ceremonies nine men and seven women stand near the dais, and a thread, which is subsequently used for the wristthreads of the contracting couple, is passed round them seven times.

At a wedding among the Oriya Omanaitos, seven pieces of turmeric and seven mango leaves are tied to the central post of the pandal, and seven grains of rice and seven areca nuts are tied up in the ends of the cloths of the bride and bridegroom. The father of an Oriya Bhondãri bride, after waving seven balls of coloured rice in front of the bridegroom, escorts him to his house. New cloths are placed on the bridal
couple, and the ends thereof tied together in a knot containing, among other articles, twenty-one cowry (Cypraa moneta) shells, such as are used by fortune-tellers and astrologers, with which, later on, the bride and bridegroom play seven times. Seven turns of thread dyed with turmeric are wound round the posts of the pandal. On the seventh day, the sacred thread and wrist-thread are removed.

A very important and binding portion of the marriage rites among Brahmans is the ceremony called Sapthapathi or taking seven steps. Raising the left foot of the bride seven times, the bridegroom repeats the words: 'One step for sap, may Vishnu go after thee. Two steps for juice, may Vishnu go after thee. Three steps for vows, may Vishnu go after thee. Four steps for comfort, may Vishnu go after thee. Five steps for cattle, may Vishnu go after thee. Six steps for the prospering of wealth, may Vishnu go after thee. Seven steps for the sevenfold hōtriship ${ }^{1}$, may Vishnu go after thee.' At a wedding among the Nambutiri Brahmans of the west coast, the bridegroom, holding the bride's hand, leads her seven steps, one for force, two for strength, three for wealth, four for well-being, five for offspring, six for the seasons, and seven for a friend ${ }^{2}$.

At the weddings of various Oriya castes, the bride and bridegroom go seven times round the pandal, holding pieces of turmeric and rice in their hands. Among the Oriya Bāvuris, turmeric water is poured over the united hands of the contracting couple from a sacred chank shell (Turbinella rapa). Seven married women throw over their heads a mixture of Zizyphus Jujuba leaves, rice stained with turmeric, and culms of Cynodon Dactylon. The bride and bridegroom are then conducted seven times round the dais.

In the Cochin State, a Pulaya bride and bridegroom,

[^211]the former preceded by seven virgins, go seven times round the pandal ${ }^{1}$.

At a wedding among the Bilimaggas of the west coast, the bridegroom goes seven times round a cot placed within the pandal, and breaks coconuts varying in number according to the nagara to which he belongsseven if he is a member of the seven hundred nagara, and so on.

At a marriage among the Khatris of the Tamil country, the deity, who is represented by seven quartz pebbles set up in a row on plantain leaves, is worshipped. Seven married women are presented with white bodices dyed with turmeric. On the fifth day, seven areca nuts are placed in a row on a plank within the pandal, round which the bride and bridegroom go seven times. At the end of the seventh round, the latter lifts the right foot of the former and sweeps off one of the nuts.

On the occasion of a wedding among the Tamil Agamudaiyans, seven married women bring water from seven streams or different places, and pour it into a pot in front of a lamp. In the course of the ceremonies, the bride and bridegroom go seven times round the pandal, and, at the end of the seventh round, they stand close to a grinding-stone, on which the bridegroom places the bride's left foot. In many Oriya castes, the custom prevails of fetching water, sometimes in seven pots, from seven houses, to be used by the bride and bridegroom when they bathe.

At a wedding among the nomad Lambādis of the Bellary district, the bride and bridegroom go, hand in hand, seven times round pestles stuck upright in the ground, while women chant a song. The bride gives the bridegroom seven balls composed of rice, ghi (clarified butter) and sugar, of which he partakes ${ }^{2}$.

In the Mysore State, the Lambādi bridal couple go,

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in like manner, seven times round the pestles. They take their seats on a plank, and the bride throws a string round the neck of the bridegroom, and ties seven knots in it. The bridegroom then does the same to the bride.

By the Tamil Sembadavans, seven rings are dropped into a pot, and the bride and bridegroom go through the ceremony of pot-searching which is performed by many castes. If the bride picks up three of the rings, the firstborn child will be a girl, whereas, if the bridegroom picks up five, it will be a boy.

At a marriage among the Konga Pallans in the Tamil country a figure of the elephant-god Ganēsa, made of cow-dung, seven coconuts, seven sets of betel leaves and areca nuts ( $p \bar{a} n$-supāri), and other articles, are placed in front of the bride and bridegroom. Among the Kadaiya Pallans, the bridegroom brings the tâli or marriage badge, which is placed on the bride's neck, tied to a coconut, seven rolls of betel leaves, seven plantains, and seven pieces of turmeric.

In one form of the marriage rites among the Tamil Maravans, the father of the bridegroom goes to the bride's house with seventy plantains, twenty-one measures of rice, twenty-one pieces of turmeric, seven coconuts, seven lumps of jaggery (crude sugar), etc., in a box made of plaited palmyra palm leaves.

By the Telugu Razus seven lamps are placed in front of pots representing the minor deities, filled with water. Round some of the pots used during the marriage ceremonies, a thread stained with turmeric is wound seven times.

At a wedding among the Kānikars of Travancore, two women take hold of the bride's head, and press it seven times towards the bridegroom's shoulder. A young boy then puts a small quantity of curry and rice into the mouth of the bridegroom seven times.

A woman of the nomad and thieving Korava tribe, who marries seven men consecutively, after the death

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of a husband or divorce, is said to be highly respected, and to take the lead on occasions of marriage or other ceremonial.

## (e) Pregnancy.

On the west coast, an important ceremony, called puli-kudi or drinking tamarind juice, is performed about the seventh month of pregnancy. At this ceremony, among the Nayars of Travancore, the husband of the woman provides the necessary rice, coconuts, and plantains, and seven vessels containing sweetmeats. Among the Izhavas of the Cochin State, small branches of the tamarind tree are planted in the courtyard of the house, and the woman goes seven times round them ${ }^{1}$. In Malabar, the Izhava woman goes round a tamarind tree, and winds a thread seven yards in length round it. In the ceremony as carried out by the Pulayas of Cochin, the woman pours a mixture of cow's milk, water of a coconut, turmeric powder, etc., into twenty-one leaf-cups, and walks seven times round a kind of tent set up for the occasion. Her husband puts into her mouth seven globules of the tamarind preparation ${ }^{2}$.

During the seventh month of the pregnancy of a Kānikar in Travancore, seven pots containing rice are placed on seven hearths, and, when the rice has boiled, the woman salutes it, and all present partake of it.

## (f) Death.

In various castes, when a death occurs in a family, the period of pollution lasts for seven days. The uncleanness is sometimes removed by the sprinkling of holy water. By the hill Kondhs, a purificatory ceremony is performed on the seventh day, and a buffalo is killed for a feast.

[^213]In the event of a death in a Nayar family in Malabar, the members thereof remain under pollution for seven days, and, on the fourteenth day, the ashes of the deceased are deposited in a river or running water ${ }^{1}$.

By the Paniyans of Malabar a little rice gruel is, for seven days after death, placed near the grave for the evil spirits in the shape of a pair of crows to partake of.

On the day following the cremation of an Oriya Gaudo, an image of a human figure is made with the ashes, and seven small flags, made of cloth dyed with turmeric, are stuck into the head, shoulders, abdomen, and legs thereof.

On the tenth day after a death among the Oriya Bāvuris, a hut is erected on a tank bund (embankment), and food is cooked seven times, and offered on seven fragments of broken pots.

At the final death ceremonies of the Billavas in the Tulu country, seven women measure out rice three times into a tray held by three women. On a similar occasion among the Badagas of the Nilgiris, the eldest son of the deceased places seven balls of cooked rice on plantain or minige (Argyreia) leaves, and repeats the names of his ancestors and various relations. At a memorial ceremony, which is celebrated by the Badagas at long intervals, the souls of the departed are supposed to recline on a cot placed beneath a car built up in seven tiers.

If a Nambutiri Brahman woman in Malabar is pregnant at the time of her death, the corpse has to be purified seven times with holy kusa grass, cow-dung, cow's urine, ashes, and gold ${ }^{2}$.

## (g) Ordeal, Oatbs, etc.

When a Koraga woman of the west coast is found guilty of adultery, in order to purify her, she is put inside a hut which is set on fire, and escapes to another

[^214]place where the same performance is gone through, and so on till she has been burnt out seven times. A variant of the ceremony occurs among several other tribesHoleyas, Upparas, and Koyis. The suggestion has been made by Mr R. E. Enthoven that the idea seems to be 'a rapid representation of seven existences, the outcast regaining his (or her) status after seven generations have passed without further transgression. The parallel suggested is the law of Manu that seven generations are necessary to efface a lapse from the law of endogamous marriage.'

On the west coast, if a Cheruman, who is himself a member of the 'depressed classes,' is defiled by the touch of a Nayādi, who ranks lowest in the scale of social precedence, he has to bathe in seven tanks, and let a few drops of blood flow from one of his fingers ${ }^{1}$.

If a member of the Marāthi-speaking Kuruvikkāran tribe has to submit to trial by ordeal in connection with some alleged offence against the unwritten tribal law, seven arka (Calotropis gigantea) leaves are tied to his palm, and a piece of red-hot iron is placed thereon. His innocence is established if he is able to carry it while he takes seven long strides.

I am informed by Bishop Whitehead that, when a Badaga of the Nilgiris takes a solemn oath at the shrine of the goddess Māriamma, the head of a sacrificed sheep or fowl is placed on the step of the shrine, and a line is made just in front of it. 'The person who is taking the oath then walks from seven feet off in seven steps, putting one foot immediately in front of the other, up to the line, crosses it, goes inside the shrine, and puts out a lamp that is burning in front of the image.' If the oath is false, the man's eyes will be blinded, and he will not be able to walk straight to the shrine, or see the lamp.

Edgar Thurston, C.I.E.

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## THE WEEPING GOD

Primitive peoples, practising agriculture in regions subject to drought, have always striven to find some means of regulating the rain-supply either by coercive magic or by propitiation of the powers supposed to preside over the weather. The more or less cultured races of America were no exception to this rule, but evolved numerous elaborate ceremonies whereby they hoped to ensure a successful harvest. However, the rain-god in America was not entirely a benefactor ; almost all the more civilized peoples of this continent dwelt within the tropics, and tropical rain is apt to be excessive and is usually accompanied by thunder. The rain-god therefore is also the thunder-god, the god who smites, as well as the beneficent fertilizer of the fields. Thus among the Araucanians, the more settled groups of whom seem to have practised agriculture even before their northern tribes fell under Inca influence, a god named Pillan was adored, who manifested himself in lightning and thunder and in the fire and smoke of volcanoes ${ }^{1}$.

Among the Diaguite people of north-west Argentina, the thunder-god ranked next in importance to the sun ${ }^{2}$.

Uiracocha, the old pre-Inca creator-god of southern Peru and Bolivia, was in particular lord of the thunder, a fact which appears plainly in the lines of the following hymn preserved by Molina ${ }^{3}$ :-‘'Thou who givest life and strength to mankind, saying, let this be a man, and, let this be a woman ; and as thou sayest so thou givest life

[^216]and vouchsafest that men shall live in health and peace and free from danger! Thou who dwellest in the heights of heaven, in the thunder and in the storm-clouds, hear us and grant us eternal life!'

Under the Inca régime the thunder, Illapa, was regarded as sufficiently important to have a special shrine within the precincts of the famous sun-temple at $\mathrm{Cuzco}^{1}$; and in the country districts, offerings were made to it under the name of Libiac, in connection with the crops ${ }^{2}$.

Among the Chibcha in Colombia, however, the rather meagre accounts which we possess of the local religion seem to imply that the sun was regarded as the fertilizing god; at any rate the ceremonies in connection with the harvest were held in honour of this deity, and sacrifices were made to him upon mountain-tops in times of drought ${ }^{3}$.

Of the beliefs of the tribes inhabiting the region between Colombia and the Maya-Quiché peoples very little is known, except that among the Nahua-speaking tribes of Nicaragua, emigrants at an early date from Mexico, one of the chief gods was Quiateotl, god of rain, lightning and thunder, to whom young boys and girls were sacrificed in order to obtain rain for the crops ${ }^{4}$.

To pass to Guatemala, it is recorded that the chief god of the Quiché proper was the thunder-god and firemaker, Tohil ${ }^{5}$ or Totohil ${ }^{6}$. And in the Popol-Vuh, the sacred book of the Quiché, Hurakan, one of the early creator-gods is styled the 'Heart of Heaven,' and the thunder and lightning are assigned to him as his particular attributes ${ }^{7}$. Moreover among the Maya of Yucatan the god (or rather gods, for there were several) of agriculture, thunder and lightning, was named Chac ${ }^{8}$.

Among the Mexicans, the rain-god was Tlaloc, who, like the Maya Chac, with his attendant Chacs, was aided

| C. 1. p. 275. | ${ }^{2}$ O. p. 16. | ${ }^{3}$ D. p. 73. |
| :---: | :---: | :---: |
| 1 S. p. 40. | ${ }^{5}$ R. 215. | ${ }^{6}$ E. §§ 20 and 90. |
| 7 R. p. 9. | ${ }^{8}$ F.1. P. 317. |  |

in his duties by a number of subsidiary Tlaloque. The latter were believed to distribute the rain, which was stored in large vases in Tlaloc's palace, by means of smaller vessels, and to cause thunder by striking the latter with rods which they also carried ${ }^{1}$.

But Tlaloc was not the only member of the Mexican pantheon who was connected with the thunder. The Ciuapipiltin, or Ciuatateo, the souls of women who had died in child-birth, who escorted the sun on his westward journey from the zenith to the horizon, were lightningdemons ${ }^{2}$; and the dog-shaped god of twins and deformities, Xolotl, the escort of the sun to the underworld, was also connected with the lightning ${ }^{3}$.

Again, the early population of the Greater Antilles, known usually as Tainan, practised agriculture to some extent, and performed various ceremonies to obtain the favour of the rain- and wind-gods who were supposed to preside over cultivation ${ }^{4}$.

In coming nearer to the particular point which this paper is intended to illustrate, it will be best first to consider the details of the festival held by the Mexicans in the month of Atlacahualco in honour of the rain-god Tlaloc ${ }^{5}$. A number of children were sacrificed on this occasion ; the small victims were richly clad and escorted in litters with song and dance to a mountain where their hearts were offered up in the usual manner. The object of the sacrifice was to ensure plenty of rain, and it was considered a good omen if the victims wept during their journey to the place of sacrifice. The association of tears with rain is a fairly obvious piece of symbolism, and it appears to have existed throughout practically the whole of inter-tropical America, but in most cases it is the tears of the god himself which represent the rain.

The most celebrated of the megalichic ruins at Tiahuanaco on the Bolivian plateau is a monolithic doorway

[^217]with a frieze in relief sculptured along the lintel. The design consists of a large central figure, flanked on either side by three rows of smaller figures carved in profile. The central figure is shown in Fig. I, and represents a rather conventionalized human form with two ornamental bands, enclosing circles, running from his eyes down his cheeks. I have elsewhere suggested that these represent tears ${ }^{1}$, and since the site of Tiahuanaco was particularly associated in Peruvian legend with the creator-god Uiracocha, it is probable that here we have a representation of that deity. If that is so, the weeping eyes form a fitting attribute of the god who dwells ' in the thunder and in the storm-clouds,' and represent the rain, just as the spear-thrower and darts which he holds in his hands symbolize the lightning. It is worthy of note that when the peculiar art of Tiahuanaco penetrated to the coast, figures of this very god, with the same attributes, appeared upon the local pottery (Fig. 2). That the tears were considered an essential attribute is evident from the fact that they are faithfully reproduced, though, apparently, no rain-god was worshipped in this locality. The reason for the absence of a rain-god lay in the fact that rain fell only about once in six years on the coast, and the coastal agriculturists were dependant upon the moisture provided by the frequent sea-mists, and, to a greater degree, upon an elaborate system of irrigation by which water was brought great distances from the mountains. Similar 'tears' appear on the cheeks of the smaller subsidiary figures of the frieze, who may be identified as votaries dressed in the livery of their $\operatorname{god}^{2}$. The scene, viewed in this light, is a remarkable parallel to one of the big Chibcha festivals, which took place at the harvest, and in which a number of men took part wearing masks on which tears were painted ${ }^{3}$. The chronicler states that these tears were meant as an appeal to the pity of the Sun, but he may well have misunderstood the true meaning; one feels

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FIG. I. CENTRAL FIGURE FROM THE MONOLITHIC GATEWAY, TIAHUANACO, BOLIVIA


FIG. 2. VASE-PAINTING PACASMAYO VALLEY, PERU (by kind permission of the Medici Society)
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THE SACRED LAKE OF GUA TABITA, COLOMBIA (BRITISH MUSEUM)


FIG. 4. POTTERY HEAD FROM A VASE, ECUADOR (AFTER GON. ZALEZ SUAREZ)


FIG. 5. PAINTED POTTERY FROM THE CALCHAQUI REGION; ARGENTINA (by himit permission of the 1hatici Society)
more inclined to regard them in the light of imitative magic like the tears of the children sacrificed to Tlaloc. An interesting vase from the sacred lake of Guatabita is shown in Fig. 3. It represents a masked man, and the engraved lines running down the cheeks may well be meant for tears. Fig. 4 shows a pottery head from a vase found in Ecuador, and here again the weeping eye is clearly shown.

But for a more interesting parallel we must go further south, to the area of Diaguite culture in northwest Argentina. Here, mainly in the Calchaqui and Yocavil valleys, whole cemeteries have been discovered devoted to very young children whose remains have been deposited in pottery urns decorated with painted ornament. The painting in very many cases represents a highly-conventionalized human figure, from the corners of whose eyes tears are shown streaming (Fig. 5). Such urns, including those not in human form, generally bear representations of the two-headed lightning-snake. Now urn-burial is extremely rare among the people of the Andes, and this fact combined with the further fact that only the bodies of young children are found in such cemeteries, gives the latter a character peculiarly their own. No suggestion has been made to explain them, but I think that it is possible to put forward a reasonable solution in the light of the following points. (1) The Mexicans sacrificed young children on mountains to Tlaloc to ensure a sufficiency of rain for the crops. (2) The Chibcha also sacrificed young children on mountains to the sun in times of drought ${ }^{1}$. (3) The only other instances of urn-burial recorded in the Andine region (which cannot be traced to extraneous influence) are, firstly among the Puruha of Ecuador, who are said to have sacrificed their first-born children and preserved the bodies in vases of stone or metal ${ }^{2}$; and (4) secondly among the Peruvians, who, in some localities regarded one individual of twin

[^219]children as the child of the lightning, and preserved the bodies of twins who died young in vases in their huts ${ }^{1}$. (5) Of particular interest in view of the last point is the fact that the god Xolotl, a lightning-god, was regarded by the Mexicans as the especial god of twins ${ }^{2}$. I think it is not too rash to suggest, therefore, that the children whose bodies are found interred in urns in the Diaguite area were sacrifices to the thunder-god, who we know was worshipped in that region, and whose portrait with weeping eyes is shown on the exterior of so many of the vessels; and further that they were sacrificed in order to secure the rain so necessary for the crops. A good representation of the weeping god of this region is seen in the fine copper plaque, found at Catamarca, illustrated in Fig. 6. Here the tears are particularly noticeable.

If we turn to the remains of the Tainan (pre-Carib) population of the Antilles, we find again the weeping god. Actual idols relating to this culture are rare, but two wooden figures, obtained in Jamaica in the eighteenth century and now in the British Museum, show deeplycut grooves, leading from the eye down the cheek, which were formerly emphasized by inlay, probably of shell. The head of one of these figures (which are figured in the Journal of the R. Anthrop. Inst., vol. xxxvir. Pls. xlviii. and xlix.) is shown in Fig. 7. A stone pestle (loc. cit. pl. liv.) shows similar face-grooves. These figures probably represent the sky-god or the rain-gods or spirits who are known to have played an important part in the religious beliefs of the Tainan.

To come now to Central America. I have mentioned that the Quiché of Guatemala worshipped a thunder-god, Tohil, and it is a significant fact that Las Casas writes of a god with weeping eyes, who was adored in many parts of that country ${ }^{3}$. Fig. 8 shows an interesting and wellcarved stone head, found at Santa Lucia Cozumalhuapa (now in the Museum für Völkerkunde at Berlin), and the

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FIG. 6. COPPER PLAQUE; CATAMARCA, ARGENTINA (by Kind permission of the Medici Society).


FIG. 7. HEAD OF A WOODEN IDOL FROM JAMAICA (BRITISH MUSEUM)


FIG. 8. STONE HEAD FROM SANTA LUCIA COZUMALHUAPA (AFTER SELER)


FIG. 9. (a) CHAC (Coter Troano 24); (b) IK GLYPH; (c) DITTO; (d) DITTO; (e) CHAC GLYPH
weeping eye is very clearly shown in this specimen. The combination of a human face with a beast's snout recalls the representations of the Maya rain-snake deity, called Ah Bolon Tz'acab, who is so frequently figured in the Dresden and Troano-Cortesianus MSS, and who possesses many parallels in the carvings of Palenque, Copan and Quirigua. The Maya rain-gods, or Chac, also exhibit certain animal characteristics, such as a snout-like nose and long teeth (see Fig. 9A), but it is the hieroglyph expressing these deities which brings us back again to the weeping eye (Fig. 9E). It is difficult to see what an eye of this form can be but the conventional representation of an eye such as that of the stone head, Fig. 8. Again, this form of eye, seen in the Chac glyph, is remarkably similar to the glyph of the second day-sign, $i k$, as seen in the Maya monuments (Fig. 9B). In the manuscripts this sign has a number of variants, the simplest form being shown in Fig. 9c, one of the more complicated in Fig. 9D, but all of them suggest an eyelid with one or more tears falling from it. That it may reasonably be so interpreted is obvious from a consideration of Fig. 9A, where we have a Chac figure bearing a shield on which this device is twice repeated (Troano MS, p. 24). Now the word ik does not mean rain it is true, but wind, and the sign thus corresponds to the Mexican second day-sign, eecatl, which is the name of Quetzalcoatl as the wind-god. In the Ixil dialect of Guatemala the word is cakik, which Seler explains as a contraction of Chac-ik-ak, 'Chac-wind,' i.e. rain-wind ${ }^{1}$. Now Quetzalcoatl as Eecatl was essentially the rain-wind; Sahagun states of this deity that ' He was believed to be charged with the duty of sweeping the road for the rain-gods, and the reason for the belief was that before the rain bursts, much wind and dust is seen. It was Quetzalcoatl, the god of the winds, who thus swept the roads for the gods of the rain.' ${ }^{2}$ Quetzalcoatl therefore as Eecatl was intimately connected with the rain-

[^221]$$
24-2
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and thunder-god Tlaloc, the Mexican equivalent of Chac, and as such is very frequently shown with what I believe to be a weeping eye (see Fig. io). My assumption gains strength when it is realized that Quetzalcoatl is only so depicted when he appears in the form of Eecatl. It is true that Tlaloc himself is not shown with the weeping eye, but then he wears a rather elaborate mask the eyes of which are surrounded with snakes, and the snake is the emblem of rain and lightning throughout almost the whole of America. The peculiar snouty mouth-mask invariably worn by Eecatl recalls the form of the stone head with the weeping eye from Guatemala, illustrated in Fig. 8.

But Quetzalcoatl is not the only deity who is distinguished by this form of eye ; it is seen also in the representations of the Ciuapipiltin, who, as said above, were lightning-spirits (see Fig. I I), and of some manifestations of Xolotl, another lightning-god (e.g. Nanauatzin, Codex Borgia io). Again, the rain-tear is not confined to the sinister weather-deities, but appears also as a distinguishing mark of some of the gods of fertility. Xochipilli, whose name is explained by Sahagun in the words 'que quiere decir el principal que dá flores ó, que tiene cargo de dar flores,' ${ }^{1}$ is said by the same author in his Mexican text (translated by Seler ${ }^{2}$ ) to be painted red and to bear on his cheeks painted tears (Fig. I2). The maize-god, both among the Mexicans and Maya is also distinguished by an angled line drawn vertically across the eye and down the cheek, which may be a variety of this tear face-paint. At any rate we get the regular weeping eye in the figure of the central deity, a moon-goddess, pictured in the maize-house of the west in the Codex Borgia, p. 43 (see Fig. I3), and the connection of the moon-deities with vegetation was very close in Mexico. Curiously enough this deity is also furnished with a beast's snout like that of the Guatemalan stone head, Fig. 8.

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FIG. 10. QUETZALCOATL AS EECATL

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\text { (Codcx Vaticantus IS } 34 \text { ) }
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FIG 12. XOCHIPILLI (Codex
Vaticunus B 35)


FIG. II. CIUAPIPILTIN (Code. Borgia $4^{8}$


F1G. 13. HEAD OF THE MOON. GODDESS IN THE MAIZEHOUSE (Cortex Borgia 43)

The theme is capable of further elaboration, but I prefer to limit myself to instances in which I think the case is reasonably clear. The result is not of astonishing importance, being in the main a substantiation of the opening paragraphs of the paper, paragraphs which perhaps hardly required substantiation. But I think one or two additional points make their appearance, among them the fact that the vegetation-spirit which has been made to play such an important part in the folk-beliefs of the Old World was of comparatively little account in ancient America (though the Zaramama, or ' maizemother,' and Cocamama or 'coca-mother,' were features of Peruvian peasant ceremonies ${ }^{1}$ ). The Americans for the most part sought a further cause in the sky-gods, the deities of rain, wind and thunder ; moreover these deities were two-faced, if they could create they could also destroy, for the rain which fertilized was inseparable from the thunder which smote. But perhaps the most interesting aspect of the question is the psychological. The Mexican and Maya cultures show so many points of similarity that one more is of little account. When however it is seen that the conception of a weeping god, lord of the rain, wind and thunder, whose functions are both creative and destructive, prevailed from Mexico to Chile and north-west Argentina, and from Guatemala to the Greater Antilles, an important link is established between the cultures of inter-tropical America. This link may be forged of nothing more than a community of thought, but even so it affords strong evidence that the various manifestations of ancient American culture possessed at least a common psychological element.

> T. А. Joyce.

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## THE EVOLUTION AND SURVIVAL OF PRIMITIVE THOUGHT

To deal at all adequately with the vast subject indicated in the above title is of course impossible, and the following pages are to be regarded simply as a preliminary outline of the impressions made upon one whose work has been mainly in the field of Old Testament study. Modern biblical scholarship has been so deeply influenced by the course of anthropological research that some of the most difficult questions that now confront the student are inextricably interwoven with complicated enquiries which really lie far outside his special field. The biblical student cannot fail to be attracted by the presence in Palestine and Syria of various beliefs and customs undoubtedly of very great antiquity; there has been some 'evolution,' but 'primitive' features continue to 'survive,' despite the many far-reaching changes in the lengthy history of those lands. Questions arise which concern both the biblical or the oriental student and the anthropologist, and if the former is naturally bound to consult and defer to the latter, the latter, in turn, cannot, of course, ignore the results of enquiry in a particular field where the investigation has been more specialised than was necessary, perhaps, for his own purpose.

Consequently, there must be an interconnection of divers branches of study or departments of research, and a little reflection will convince one that upon such inter-
connection, and upon continuous criticism and countercriticism, the progress of knowledge has always depended. A cooperation of this character militates against a casual dilettantism and an excessive specialism; it adjusts the more specialistic and inevitably one-sided work of the single individual to a greater number of interests and aims; it tests the methods, principles and conclusions in one field by applying them to another. In fact, the 'evolution' of knowledge, or of any branch of knowledge, is the result of a collective process, and advance has been due, not so much to single factors, as to a multitude of complex and interacting causes, not merely to a series of outstanding names, events or discoveries, but also to the cooperation and interconnection of a great variety of minds. And through intricate collective processes of this kind comes also the 'evolution' of any group or environment.

We may regard a branch of study-e.g. anthro-pology-as a discrete body of ideas, as a single complex slowly moving from one stage to another. It has no real existence, it depends entirely upon individuals, and when one thinks of any body of thought, of an institution, practice or custom, of a corporate body, or of a nation, it is necessary to control one's argumentation, and so keep in touch with experience, by remembering that one is dealing with human beings and their ideas. And it is a good working rule to assume that the ideas persist in them for the same reasons that ours do in us. To fancy, however subconsciously, that those whom we cannot understand or tolerate lie outside rational enquiry is to cut the knot ; it is as contrary to the method of research as to regard every difficult text as corrupt and every improbable narrative as a fiction. Rather must we suppose that people hold ideas, (a) because in some way they commend themselves to their individual experience and knowledge, and (b) because nothing has occurred to modify, reshape or eliminate them. Now, if we consider
the 'evolution' of some body of thought-anthropology, law, religion, or the like-may we not regard any antiquated and out-of-date views as 'survivals'? But since we are really referring to individuals, who otherwise may seem perfectly rational, the question is of immediate human interest. Everyone has some ideas which his more progressive brother could style 'survivals,' and one has only to examine the 'evolution' of one's own ideas to perceive that the title of this paper involves matters of everyday occurrence and directly concerns the psychology of human nature. Anthropology may seek to confine itself to the primitive, rudimentary and backward of faroff lands and ages, but the curious enquirer, especially at the present day, speedily finds some connection between anthropological research and the ordinary inhabitants of our towns and villages.

The biblical student who is interested in the history of Palestine and Syria ranges over a period of nearly five thousand years. Egyptology has reached a new stage in the recent standard publication of the 'Pyramid Texts.' These belong roughly to 2500 B.c.; they are thus older than the 'Book of the Dead,' they are indeed the oldest body of literature surviving from the ancient world, and they presuppose a lengthy development of thought. For the next great landmark we have to turn to Babylonia, where, about 2000 b.c., we have a good stock of material which includes the now famous code of laws revised and promulgated by Hammurapi, the king usually identified with Amraphel in Genesis (ch. xiv). During some four thousand and more years it is possible to trace the rise and inauguration of new conditions, their decay and fall; one can follow the course of religious cults; gods and men, beliefs and forms of thought undergo unceasing vicissitudes-everywhere there is change, but everywhere there is no change. It is not inaccurate to speak of the 'Immovable' or 'Unchanging' East, and those who read themselves into
the lengthy history of the Near East can hardly avoid the conviction that the ordinary notions of the 'evolution' of thought are imperfect ${ }^{1}$. It cannot be denied that there are some fundamental differences between the conditions of to-day and those of the far-off past. But the similarities are equally fundamental, and difficulties arise because one is apt to lay undue emphasis upon one body of selected data to the exclusion of another. As when we compare the ape with the man, it is exceedingly important to have some point of view which shall allow us to take in both the resemblances and the differences.

Evolution in the organic world culminates in man; but when we deal with ideas, we are necessarily swayed by some standard, and our conception of any evolution in the psychical world is bound up with our own ideas and ideals. Our notion of 'survivals' implicitly assumes some evolution: we are conscious of a gulf between certain phenomena and our world of thought, and when the features can be associated with a savage land or a bygone period, we are very ready to suppose that they are the relic of a past beyond which there has been an advance. Different people for different reasons have regarded as 'survivals' : -belief in the evil-eye, in witches, fairies, and a personal Deity; a particular religion, or all religion; the Monarchy, a Second Chamber, and any institution to which they objected or which appeared to be suggestive of feudalism or medievalism. The estimate is, of course, based everywhere upon some system or body of thoughtand essentially it is the individual's own thought and at a particular stage of his life-history. Herein lies the possibility of immature and arbitrary judgment, of opinion

[^224]influenced by imperfect notions of 'evolution.' The reference to medievalism is a case in point.

We may hold that the evolution of ideas leads up to modern thought, or culminates in the modern form of some religious faith, or, may be, is destined to culminate in the disappearance of all 'superstition' and in the inauguration of an age of truly 'rational' thought. Now, here we are often swayed by certain notions of the 'Dark Ages' and of the 'Revival of Learning,' and are apt to confuse two different things: (a) the history of particular areas or peoples, and (b) that of particular bodies of thought. If we refer to the general development of philosophy, science, religion, or of any branch or aspect of human activity, we are concerned only with certain special distinctive features, now in Greece, now in Rome, and now, let us say, in France. But it is obvious that not until a certain period in the world's history could Western Europe benefit by the best thought of Greece and Rome. In proof of this we have only to compare Britain with Rome and Greece in, say, the centuries immediately before and after the rise of Christianity. When we speak of the 'Dark Ages,' of the 'Revival of Learning,' and the like, we speak not as men of Western Europe (or some other limited area), but as citizens of the whole world ; we are thinking imperially, universally, and we do implicitly identify ourselves with something vaster than our particular and relatively circumscribed area of to-day. The general evolution of thought in the Universe is not to be confused with the career of particular lands or empires; but that we should so instinctively associate ourselves with a unit larger and more permanent than ourselves is exceedingly interesting and instructive for any discussion of the nature of our intuitive ideas.

The child does not begin where the father leaves off. In Greece there was a failure to maintain the high level of thought attained by a few gifted minds: in Western

Europe a certain stage had to be reached before it was ripe to receive the influence ${ }^{1}$. It is waste of energy to seek to apportion the blame, the average individual is usually guided by his stock of experience and knowledge, and he regards with some suspicion the strange and novel. This is true even of those who complain of the backwardness or the obscurantism of their less progressive brethren ; for the 'progressive' and 'radical' are only relatively and departmentally so, and if they do not usually embrace new ideas but rather seek to spread their own, time often shows that even their attitude of cautious hesitation was not unjustifiable. The fact is, the evolution of an area or of a body of thought is a very slow process, and any retrospect will prove that no estimate can safely be based on one or more isolated features. The problems under discussion concern complexes of ideas, and it is indispensable to notice the whole of which our phenomena are an integral part.

A Dreadnought and Atlantic liner of to-day are the outcome of a lengthy development, not merely of shipbuilding, but also of engineering, physics, mathematics, metal working and a variety of professions and industries. The two, as they now are, could not conceivably have been constructed a decade or so ago--'evolution' had not reached the necessary point-and they will not be constructed, much less improved, a few decades hence, unless a people maintain all those arts and crafts that have gone directly and indirectly to produce them. They would be of little or no use-as regards their present purpose at least-to any people that had not attained a certain standard, which it would be rather difficult to define; on the other hand, they might even be improved by a people that had not passed through that particular evolu-

[^225]tion of culture that gave birth to them in Western Europe. Mutatis mutandis this applies to all objects and ideas that are imposed or borrowed. Simple observation shows that the individual cannot profit by any datum unless he has reached a certain mental level. Hence it may be irrelevant to object-from some ethnological point of view-that such and such features in a given area have been introduced from outside; what is essential is the question whether the area could have accepted and assimilated them unless they were intelligible and acceptable, and unless the soil was ready. As a general rule, if $A$ betrays the influence of $B$, or if $A$ clearly has borrowed $B$, it is always possible to make certain inferences concerning the state previously reached by $A$.

What any area now contains and tolerates has escaped the ravages of time; it has outlived those vicissitudes which make the gulf between modern culture and prehistoric primitive man. If there be anything in 'the survival of the fittest,' even the 'survival' has at least so far survived! Again, although much is always being modified or eliminated, not only do the survivals survive, but it is perhaps impossible to foretell what can safely be eradicated from any context. It is not out of place to notice at this juncture that observation shows that movement of thought is everywhere due to individuals ; this is a painfully obvious fact, but it militates against the notion of any 'self-active' or 'self-growing' group. Even in the case of very rudimentary groups there is reason to believe that the individual can exercise very considerable influence ${ }^{1}$. It is true that for the sake of economy we work with such concepts as 'collective thought,' and the like, but an unreal quantity must not find a place in the solution. Hence, though we may speak of a group or of group-thought as a unit, the only real units are either the individual or the whole of which he is part,

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and this whole is, logically, something vaster than his physical or psychical environment (his country or his stock of experience and knowledge).

When we consider Palestine and Syria, we naturally recognise that the psychical evolution culminating in modern Christianity and Judaism is quite distinct from the historical evolution of those lands. To-day these lands present conditions which are, in several respects, more 'primitive' than when these two faiths arose on their soil, and when the religious development was part of the secular and political history. None the less, at every period all the conditions were doubtless in harmony: for example, the old laws in the Pentateuch have not that complexity which marks the still older code of Hammurapi, and indeed the social organisation in Babylonia was more complex; on the other hand, the customary usages among the natives of to-day are relatively simpler than those reflected in the Bible, and in other respects their whole life is less advanced. We may certainly talk-meta-phorically-of an ebb and flow, or of a rise and fall, but we must not suppose that the fluctuation of conditions during the lengthy history of the Near East affected the whole of any area in the same way. We have to allow that in the past, as at the present day, there were the usual differences among types and tempers, between the priest and the peasant, between the sea-ports or trading centres and the more remote townships, between the traders, agriculturists and the sons of the desert.

Where the evidence happens to be fairly comprehensive the divergences and contrasts are instructive. The archaeological evidence indicates interesting differences in culture: the more distinctive features (which are important for our conception of the evolution) standing out against a slowly-moving background of rather ordinary stamp. The Old Testament, in turn, emphasizes the differences $(a)$ between the lofty ideas of the relatively few prophets and the general average thought of rulers
and priests, and $(b)$ between the last-mentioned and the more popular thought of the many. Everywhere there is an interconnection: the ideals of the prophet are conditioned and shaped by the circumstances of the age, and each level of thought is in touch with others. The observer is more impressed by the distinctive and conspicuous features that lie outside the ordinary accepted thought; hence the markedly 'progressive' are as striking as the markedly 'backward.' But it is not rarely doubtful whether any feature outside the normal is to be styled progressive or recessive. On the other hand, it is hardly doubtful that there is an invariable tendency for the normal or average to persist, though not necessarily in precisely the same form. If it were not for this we could hardly recognise a genetic sequence in any sequence of conditions. In civilised lands many conspicuous 'survivals' are essentially akin to the average thought, but are in a form out of touch with it; and it is questionable whether very 'radical,' 'extreme,' or 'progressive' ideas ever permeate and persist in an environment in the shape in which they primarily issue from individuals ${ }^{1}$.

Palestine, during the Greek and Roman periods, seems to have been saturated with the exotic Hellenistic culture; but even in the time of Herod the Great the Trachonites of the desert retained the old crude lex talionis, and subsequent events proved that in the towns the foreign civilisation had not leavened all classes alike. As the foreign influence weakened, a Scythopolis threw off its Greek dress and revived the old name Beth-shean which

[^227]still persists in Beisân. The traces of the foreign culture become astonishingly scanty. It is easy to imagine the serious dislocation of life and thought caused by the destruction of some city or temple, by the captivity of a portion of the population, or by the Assyrian policy of transplanting whole bodies of settlers. Oriental history abundantly illustrates the interconnection of social, political and religious events ; yet, one is obliged to recognise that, although various changes have ensued, they are not so striking as might have been anticipated from those disturbances which to the ethnologist or to the historian appear so radical. Some of the unsuccessful attempts to introduce profound modifications can be reckoned among the outstanding failures in the world's history, and it would be a pity to ignore their significance for the psychology of human nature. One is tempted to infer that an entire system or body of thought-e.g. law, religion, etc.-cannot be successfully imposed upon another, and that the happiest results are achieved by a somewhat specialistic or departmental form of activity whereby the whole is ultimately leavened ${ }^{1}$. In the latter case the whole environment cooperates, and it assimilates the new to that which it already possesses so that there is an adjustment between the old and the new ; it works out, so to speak, its own career. What an environment maintains has been adjusted to the collective average thought; there is an interconnected-an organic-body of thought with individual variations; and progress has lain in the application of more individualistic-and therefore more specialistic-activities to the more comprehensive inheritance of the whole area.

Now, if these arguments are just, it is by no means certain that we should speak of the 'decadence' or 'decline' of Palestine after the downfall of the Greek and Roman

[^228]culture-this would be to judge the sequence by our conditions and not in the light of its own. Since the conditions of any one age represent the outcome of past processes of selection, rejection and adjustment, it is not certain that any area can be judged absolutely by another. Moreover, the 'primitive' features in the Near East of to-day can scarcely be regarded as true survivals. In a civilized land the 'survival' is a phenomenon out of touch with the general level of thought-that is to say, with our level (p. 378). In Palestine and Syria, the various alleged 'survivals' may be so regarded from the standpoint of the educated, intelligent or orthodox Mohammedan, Christian or Jew ; but they are closely bound up with the whole life and thought of the native. The test is the effectiveness of the features, and there can be no doubt that we may regard them as 'organic'; they are distinctly functional, and often have a greater meaning and validity for the native than the characteristic beliefs and practices of the more orthodox and systematised faiths ${ }^{1}$.

Of all the features that 'survive' under the veneer of Mohammedanism most characteristic is the cult of the local weli (patron), sheikh or saint. This 'being' is one with the local group, whereas the Allah of Islam is somewhat remote; Allah is certainly recognised, and does indeed hold a position, but he has scarcely any organic part in the system of ideas. The weli is the effective sacred 'being'; for example, oaths will be freely taken in the name of Allah and as freely broken, but the oath by the weli is binding. The relationship between this 'being' and the group is exceedingly instructive for the

[^229]light it throws upon practical, popular religion ${ }^{1}$. The local cults persist below the surface of orthodoxy, and usually they are in a fragmentary and unsystematised form. The names of the 'beings' are familiar in the Old Testament (especially Elijah), in Mohammedan literature, in medieval and modern lore; but sometimes it is perfectly clear that they take the place of earlier names of 'heathen' deities-of some Apollo, or even an Astarte ${ }^{2}$. Now and then traditions are associated with them, but in some cases they are patent efforts to explain a legacy the origin of which was unknown. It is very important, also, to notice that here, as elsewhere, no indication as to date or origin is necessarily furnished by a single element however perspicuous. The cults are virtually independent of the names and traditions, and their persistence and the attempts to legitimize or renovate them are especially instructive; moreover, they emphasize the necessity of distinguishing the several features according to their historical, sociological, religious, psychological or other value.

There is an obvious readiness to venerate a local being: we distinguish, accordingly, between the religious-psychological material and the figure which it clothes ${ }^{3}$. He corresponds, as has often been observed, to the local Baal of the Old Testament; he also reminds us of the ancient city-god, and the later representative, the $\mathrm{T} \nu \chi \eta^{\prime 4}$. It is

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very significant that the efforts made by the Israelite reformers to put down the Baals evidently met with unceasing opposition, and that the more modern attempts of the Wahhâbites (in the eighteenth century) to do away with the 'saint-worship' were unsuccessful. The fact is, the local being supplies a want; he is felt to be accessible, near at hand, and, like some head-man or feudal-lord, he is directly interested in his little circle. Allah, on the other hand, is felt to be rather remote; he is like the great king or sultan whose influence is not immediately seen, and who need not be approached save in some crisis. The vicissitudes enable one to understand how readily the political and the religious ideas evolved together, and how, given convictions of the supernatural, it has been the function of systems of thought to coordinate the life and thought of the whole group.

Especially noteworthy is the solidarity of the group which feels itself to be a unit with the object of its profoundest ideas. Of its sacred beings that one is to be regarded as most effective which is supposed to stand nearest to the group. A group may tolerate or recognise a number of deities, but the one that is essentially effective is the one that is organically connected with it in the working system of beliefs and customs. The local weliand not Allah-is really the deity of the native, and if we were considering the evolution of a local cult, it would certainly be necessary to avoid confusing the evolution of ideas concerning the object with the object upon which the various ideas are centred. Allah might seem to be immeasurably superior to a local weli, but when in actual life and thought the latter alone is reverenced, and is normally more effective than the former, the necessity of this differentiation will perhaps be recognised.

The vicissitudes that can arise find a parallel in

[^231]Roman Catholic areas where the local saints are often both the modern representatives of earlier non-Christian figures, and, in a sense, the rivals of the Deity. The problems of adjustment are no doubt everywhere similar. Now, the more we are struck with the sociological and psychological aspects of the local cults, the more interesting is it to observe the different forms in which the underlying instincts or needs will manifest themselves. Consequently, it is impossible to ignore the significance of the presence of mediators and intermediaries in Talmudical Judaism. From an orthodox point of view these are not of the first importance-and this is also the attitude of orthodox Mohammedanism to the welibut although they appear in a dress which links them with the current doctrines of Judaism, the historical student will note that they come after the disappearance of the Baals and before the rise of the patrons and saints. The trend of history and the part they play thus suggest that they represent the popular demand of the period for more accessible and more immediate supernatural assistance, and that the form they take in the theology is due to a compromise between popular feeling and the attitude of strict orthodoxy. One may venture to suggest as a general principle that a thoroughly persistent and inveterate type of belief will continue to manifest itself in some form after the disappearance of any feature or features where it is clearly recognisable ${ }^{1}$.

If, at the present day, a local being is named Elijah or St George-both are common-it is obvious that neither details touching the names nor the most ancient of relevant traditions are necessarily of any value for the modern cult. To understand the present meaning of some datum we are not necessarily the wiser when we have found its origin. On the other hand, it is clear that these names do point to definite bodies of old

[^232]tradition ; and not infrequently data that are not essential for the existing conditions are of considerable interest for the glimpses they afford of some earlier culture. Thus, they are the disjecta membra of a body of thought with which-in the case of Elijah and St George-we are of course familiar. Elsewhere one is often tempted to infer that our data are in certain respects true survivals, and that they point to a context which must be recognised though it may be impossible to reconstruct it ${ }^{1}$. Consequently, the study of periods of political and social dislocation is exceedingly useful for the light it can throw upon types of changes and typical results. It introduces us to the appearance and new prominence of the relatively lower features after the downfall or decay of some culture, and to the 'popular' form of material which otherwise comes before us only in some 'cultured' dress. To understand this, we have only to contrast modern 'popular' opinion with that of the more 'cultured' regarding any important matter, and consider what would result, if by some chance only the former persisted. To the observer there would seem to be a relatively rudimentary stage following upon one relatively advanced, and when one is engaged upon problematic situations it is easy to see how such a sequence-though perfectly genetic from the historical point of viewmight seriously complicate enquiry ${ }^{2}$.

To the historian, the appearance of a series of stages, genetically connected with one another, but presenting the antithesis of an 'upward' movement, is of course no novelty. To the philologist, also, primitive and ancient are not the same, and the oldest member of any family of languages is not necessarily the oldest from the philo-

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logical point of view. Classical Arabic, of the Koran, is in this way older than its next-of-kin, its historical predecessor, the old pre-Christian Arabic of the Minaean and other inscriptions, older even than the Babylonian or Assyrian of $3000-2000$ b.c. Further, in some important respects classical Arabic stands to the modern vulgar dialects in a relationship corresponding to that held to the historical Semitic languages by the postulated ancestor $(A)$. In a certain modern Syriac dialect the verb is proceeding along a course which, we can infer, must have been taken by $A$ in pre-historic times, and which accounts for the forms in the older languages ${ }^{1}$. Thus, when we study languages, we can understand that some $a$ may be the later representative of a postulated primitive $A$, although it is in an environment influenced by preceding stages of history, and in a form with many distinct features of secondary growth ${ }^{2}$. Further, we can in some measure recognise a development, $l, m, n$, etc., which corresponds to an older $L, M, N$, etc., which $A$ must have undergone. From the philological point of view, therefore, there may be a profound identity underlying profound differences, and primitive phenomena may appear in contexts and conditions chronologically late and with the plainest indications of an earlier history. So, also, from the sociological point of view, it may be possible to regard some phenomena as primitive despite their late dress, and careful comparison might enable one to determine some ordinary types of development. Certainly, at the break-up of any older social system one would anticipate rudimentary forms, even as, when the system is found to be slow or unsatisfactory, we sometimes see, as in the case of lynch-law, a state of affairs which every primitive society had in course of advance to check and regulate ${ }^{3}$. If, now, we turn to religion, it is obvious

[^234]that the primitive religion must be in a really primitive context-linguistically, sociologically, historically and ethnologically-and since it is extremely unlikely that such a context can be found, it is surely legitimate to apply the term 'primitive religion'—if it is to be retained - in a relative sense to any actual or hypothetical conditions that stand all relevant tests ${ }^{1}$.

In the nature of the case there are some very serious preliminary problems even as regards 'relatively primitive' religion ; but it is at least clear that the conditions must be such as would explain the presence of others, and that there must be a genetic sequence of thought. The psychical development of a child is an ordinary genetic process, a matter of everyday experience; but it is impossible to understand scientifically the mentality of a young child, or to introspect and study precisely all the points of difference between our consciousness now and what it was in our early days. None the less, at every stage there has been an interconnection of antecedents and consequences, of causes and effects. Hence, a type of primitive thought may be as effective and self-consistent as the thought of a child, but, like it, may lie somewhat outside our comprehension. This being so, continued study in these two directions-child-thought and primitive or rudimentary thought-should be mutually suggestive and helpful. If there be any psychological resemblance in the development of the two, our problems will be interrelated. On the other hand, if there be no resemblance, our difficulties will be enormously increased. If we start with the assumption that there is a difference, we should find that ultimately we must assume that

[^235]every individual belongs to a different psychological type; hence it is a more natural method to assume as a working hypothesis that the genetic development of thought in the child is not dissimilar from that in those groups or individuals who have been responsible for the evolution of thought in the world ${ }^{1}$.

On various grounds the aboriginal totem-tribes of Central Australia may perhaps be regarded as the most primitive of all extant communities ${ }^{2}$. Our estimate must not be based upon any isolated phenomena, but upon the conditions as a whole; thus, there must be a social system, an organisation of life, some coordination of belief and custom. It is true that closer inspection may reveal signs of fusion of race, complexity of culture, and secondary forms of social divisions; but the history of Palestine and Syria is enough to convince one that an ethnological argument by itself is insufficient. Nor must undue emphasis be laid upon social organisation, since the same type may recur amid varying grades of religious and other thought. That is to say, evidence which may be significant for ethnological or sociological or economical or linguistic enquiries, taken separately, may be less so when we have to deal with a group or area as a whole. Another objection to the view that the Central Australian conditions are primitive has been based upon the fact that there are various traces of gods and supreme beings ${ }^{3}$. For my part I see no reason to question the evidence or to minimize its value. The really essential matter is the place of these beings in the cults. Now, as far as I can perceive, there can be no doubt that the cults are totemic ;

[^236]the totem is not an appendage, it is one with the group, and of the same kin with the members of the group; the cult is bound up with the totem, and it is an organic part of the life of the group. The crucial test is the impossibility of eliminating totem or cult without destroying the 'structure' of the beliefs and practices. The supreme beings, on the other hand, are not sufficiently characteristic; they are not pure survivals, because, like the Allah of the oriental native, they are recognised in the life and thought; but, like Allah, they are not an integral or organic part of the cult. Hence it is not improbable that they may be regarded as the traces of another culture, and, in this case, an earlier one ${ }^{1}$.

This conclusion is especially important for our attitude to the 'magical' ceremonies of the Central Australian aborigines. As everybody now knows, each group, it is believed, can control its totem in some way. If the totem is an edible animal or plant the group performs certain ceremonies in order to multiply or increase it for the benefit of the tribe. But the most remarkable feature is this-that although the group does not usually eat its totem, yet on these occasions, it must take of a portion if it is to retain its 'magical' power of control ${ }^{2}$. This is strikingly analogous to the offerings of firstlings and firstfruits which are generally given to deities or to their representatives; and consequently it seems a tempting view that, in the course of transition, the gods ceased to be worshipped, but the ceremonial offerings continued to survive (cf. Jevons, op. cit. p. 86 seq.). To put it otherwise, the Central Australian groups partake of a portion of the totem-food, when they multiply it, because at an earlier period it had been offered to the gods. This

[^237]view, however, appears to me to reverse the actual development.

The ceremonies are solemn, they entail self-restraint and some suffering; they are in some degree disciplinary; the unselfishness involved is rather noteworthy. In a word, they are in no sense formal or external-no mere empty ritual. Each group assists the rest: the Emumen do not eat emu (or only rarely), but they are expected to multiply the food for all the others; at the same time they enjoy kangaroo, which the Kangaroogroup abnegates. If we call the various foods $a, b, c \ldots z$, group $a$ controls $a$, denies itself of food $a$, but enjoys $b \ldots z$; group $b$ controls $b$, denies itself of food $b$, but enjoys $a, c \ldots z$, and so on. Now elsewhere, on other levels, men will appeal to deities for all and sundry benefits, or there is a sort of departmentalism where certain classes of objects are associated each with a separate deity or spirit, or with one or more human representatives. Consequently, when, in Central Australia, group a provides $a$, it stands to the rest of the tribe, so far as food $a$ is concerned, as a deity might do on other levels. And the same could be said of groups $b, c, d$, etc. Thus, the tribe contains a number of groups, all united by their interdependence, and each group resembles in some one respect the deity of the more advanced communities. One may almost assert that each totem-group acts like a deity and partakes of a portion of the totem-food quâ deity! But there is no organic deity in the cult.

The system admirably unites the tribe, and it is extremely difficult to understand how the present conditions could have evolved from an earlier recognition of one or more deities. We should be forced to assume some clever and artificial differentiation of the powers attributed to a deity and of the benefits expected from it. We should have to suppose that the tribe and its deity broke up into the present remarkably elaborate system of interconnected groups in which deities play no organic
part. But elsewhere the transitions are from coherence and system to incoherence and fresh systematisation; and when the worshippers of a deity are divided, they usually fall into conflicting and opposing groups, each with different conceptions of the deity. The fact that the tribal system is so cunningly interrelated is most significant. From an economic point of view the 'magical' rites are primitive, organic and effective. Malinowski has noticed that the rites are most fully developed among the Arunta tribe, yet we cannot regard the type there as a higher stage of the rudimentary forms found elsewhere. We can but say that it is more organic. We cannot sever the ethical, religious (or 'magical'), social and economic aspects, and if we eliminate the ceremony we destroy the link that binds the group together ${ }^{1}$. It seems impossible to conceive an earlier stage out of which the conditions could have evolved ; like the earliest recognisable ideas of a child, they come before us effective and in working order, but there are antecedents, although we cannot pierce through, comprehend and formulate them.

If, now, we regard the conditions as primitive it is not difficult, perhaps, to trace some typical developments. For example, instead of the officiating group we may find the head-man or the 'magician,' and in the course of political and social developments we reach the royal priest or the priestly king. To the latter are ascribed wonderful powers, by virtue of their relationship with divine beings; but here we are at the stage of conspicuous individualities, and these we do not find in the more democratic rudimentary groups. Moreover, although there are some fundamental points of resemblance between the features in totem-cults and those on higher levels, the totem can hardly be called a deity; and while

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the totem links together the members of the group and is one with them, directly we pass to higher stages its place is taken by a recognisable deity, a spirit, or a local being like the weli. We should not say that the totem evolves into a deity-although there is evidence pointing to this as a possible transition ; what really evolves is a complex of ideas focussed now upon a totem and now upon a supernatural 'being' of a type more familiar, intelligible and human ${ }^{1}$.

All the world over there is a well-known conviction of the efficacy of imitating spirits and deities; especially noteworthy is the purely external imitation: the dress, mark or symbol which establishes a relationship deemed to be beneficial. In totemism the group will, in one way or another, make use of some imitative practice, it will 'impersonate' the totem (e.g. in the food-ceremonies), wear some symbol of it, and so on. But the totem is neither a deity nor a spirit, although the cult of the totem can 'evolve' into the cult of an anthropomorphic deity. It is more than improbable that the earlier gods were anthropomorphic, and it is very significant that the anthropomorphic beings will often betray features of a (presumably earlier) animal or theriomorphic character. How could rudimentary men have any notion of the manner in which their deities were to be represented, unless they could point to the inherited ceremonies where the sacred beings had been impersonated by men? Only if we start with totemism, and the ceremonial imitation of the non-human centre of the group's cult, does it seem possible to understand that stage where the place of the totem is taken by a deity ${ }^{2}$. But we must go further.

[^239]In New Guinea the Elema-maskers 'hop about as is characteristic of gods'; it is proof of their divine nature that they do not walk on the soles of their feet as do ordinary mortals ${ }^{1}$. This may remind us of the limping dance of the priests of Baal when endeavouring to arouse their sleepy god and silence the taunts of Elijah. But how was it known that the gods hopped? May we not conjecture that the tradition rests upon the peculiar actions of those who in the past had impersonated the sacred beings? Illustrations can be found in accounts of ritual, ceremonial and other dances ${ }^{2}$. Especially noteworthy is the non-normal, ecstatic or semi-ecstatic state in certain kinds of dancing, ritual and other, a phenomenon that takes us to the psychological study of the state of the consciousness in times of enthusiasm, solemnity, stress, or any markedly non-normal occasion. Certain states are characterised by distinctly non-normal feeling and behaviour, and they have invariably exercised a profound influence upon the individual and the observer alike. From the purely psychological point of view, such states in the totem-group (which has no organic deity) differ only in degree and not in kind from those on higher levels (whether in religious or other enthusiasm, in ecstasy or mysticism). If this be so, therefore, the totem-group on its deeply solemn occasions may seem to us to be externally imitating the totem, but the student of the psychology of religion will correlate the consciousness of the totemist with that of his more advanced

[^240]neighbours in those cults where men enter into communion with deities and spirits ${ }^{1}$.

The subjective states in question will often awaken an individual to a world of new and profound values; they compel reflection and speculation, and there has regularly been a desire to reproduce them artificially. This artificiality-if we so style it-is of course not confined to religion; at political meetings music has been employed to arouse a particular emotion that was to be shared collectively, and to deaden or inhibit opposing and critical individuality. Equally 'artificial' is the use of bands, banners and badges to stimulate enthusiasm and fellowship, and to arouse appropriate ideas. Now, obviously we do not feel these to be artificial, nor do we retain them because our ancestors employed them for their own purposes. The fundamental reasons are psychological-certain results are desired, certain means are suggested or suggest themselves, and they prove effective. We do justice to our race if we suppose that beliefs and customs persist for some conscious or subconscious feeling of fitness, propriety and the like. That is to say, what has persisted has been in some degree utilitarian. There is no doubt that there is much among rudimentary and other peoples that seems to us inexplicable or irrational but has really a rational explanation could we understand its context ${ }^{2}$. If the savage is intelligible to us and 'rational' when he throws away the fetish which has lost its value for him, is not the retention of it a sign that it is felt to be effective, that it is not yet thought to be absolutely useless?

It is noteworthy that when the ceremonial imitation loses its force, the men who impersonate the sacred beings

[^241]and represent their traditions will evolve into mere players and actors ${ }^{1}$. But although the 'religious' ceremony has become 'secular,' we do not infer that there had been no 'secular' acting at the earlier stage. Acting has psychological roots; it is the external form, the content or material of the acting, that has been derived from a 'religious' source. So also, if some of the games of children can be traced back to solemn ritual and grim practice, we distinguish the psychological foundation of play from the historical development of particular forms. By this analysis we sever, as far as possible, all that belongs to the psychology of the individual from all that depends upon the history of his environment, and thus we seek to distinguish the evolution of each and every individual from that of the environment which has taught him how to express his feelings, perceptions and thoughts ${ }^{2}$.

The fact that those who impersonate sacred beings can become merely 'secular' actors is an instructive example of external development when a practice has lost its earlier and inner meaning. This, of course, bears upon any discussion of Magic. There is an obvious difference between (a) the active stimulation of effective ideas by an 'object' whether material (e.g. a banner) or psychical (e.g. Country, Church, School, Religion)and (b) the assumption that the 'object' is effective in itself, like some amulet or talisman. The assumption is sterile, it is one of the characteristics of the multitudinous phenomena massed together under that convenient term 'Magic.' But can it be primary ? Can we suppose that any $x$ will be effective, unless, in the first instance, we have some reason for our belief ${ }^{3}$ ? On

[^242]the other hand, if $x$ has once stimulated effective ideas, it is an easy step to suppose that the force lies in it itself. This is secondary, and is due to imperfect analysis; and this crucial development can occur at any level ${ }^{1}$. Now, man, like the animal, works by the 'trial-and-error method.' He slowly eliminates all that is ineffective and sterile. On the other hand, he has preserved some remarkable 'magical' practices in the evident belief that he could get crops, rain, children and other benefits. This Magic, irrational and often absurd, is perhaps the most fascinating of features in the study of the development of thought. I leave on one side all that could be due to 'suggestion' and to its effect upon certain temperaments, and refer to the obviously impossible ceremonies. No one supposes that the ceremonies of the natives to produce rain could be successful in themselves; and to talk of credulity or self-deception is to cut the knot and confuse enquiry. If there was drought in the land and rain was sorely needed, the failure of Magic meant disaster and death. Of course primitive prehistoric men might learn when Magic could be employed with some chance of success-but this would take time; or failure might be attributed to the machinations of a rival-but this involves reflection and a theory. The grave difficulty is the urgency of the occasion; the first men who practised Magic could not afford to wait, and if they ever commenced to attempt to produce rain or food by Magic, why were they not deterred by the initial failures? Did they or did they not attempt by Magic to build huts and canoes or to plant seeds, and why did

[^243]they persist in precisely those cases where even modern civilisation is impotent? Either we have to regard primitive and rudimentary men as inferior to all animals who work the 'trial-and-error method,' or the observances were interwoven with such feelings and ideas that failure was no deterrent. Either those who practise this Magic are absolutely unintelligible for psychological in-vestigation,-yet they were adults and were otherwise 'rational'-or, on the theory of genetic development, we may correlate them with those on higher levels whose persistence in spite of failure is due to the character of their consciousness. Obviously, the only view which enables us to study them with the help of psychology must not involve a preliminary classification of men into different psychical types; see above, pp. 376,391 seq.

The admitted difficulty is that of understanding Mind on any level very different from our own. To judge from some evidence, one might almost imagine that rudimentary men lived in an unreal world and in a semiecstatic state which, in truth, would have prevented them from doing their everyday duties. Much is due to our own misinterpretation and inability to understand ${ }^{1}$. Some modern writers appear to believe that men, say of the Emu-group, could see little or no difference between the bird and their fellow-men. If so, their neighbours, the Kangaroo-men, were similarly placed, and, on the same analogy, what must be said of the men of the Witchetty-grub totem and of the various plant totems? The absurdity of any crudely literalistic interpretation of the natives' mode of speech may be realised by observing among civilised people the feelings and thoughts aroused by some dilapidated doll, some rude daub of a saint, or some antiquated daguerreotype. The photograph that is 'uncle John all over' could never be

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confused with that robust gentleman in the flesh, it is perhaps nothing like him; but the ideas aroused by it are such that our words are intelligible. If the native really thought that the emu was a man and that his fellowmen were emus, kangaroos-and to be logical one must add grubs, plants and flowers!-he would be a sub-human thing whose life and behaviour we can hardly conceive ! True, the problem of comprehending primitive thought and custom still remains; but this belongs ultimately to the study of intuitive knowledge and of religion in general, and is closely bound up with that of the relationship between instinct and intelligence ${ }^{1}$. The really important step is to recognise the significance of the existence of modes of thought which happen to lie outside our present mental horizon, and to realise that primitive rudimentary men are, psychologically speaking, human, and that if they seem to identify themselves with emu or kangaroo, it is not unscientific or irrational to allow that there can be types of mind, thoroughly effective, yet as difficult to comprehend as the thought of the child or of our own childhood.

In fact, everywhere there is a façon de penser to be determined. It is perfectly true that on these lines the difference between the rational and the irrational seems to disappear, but the difference has never been absolute, and the advance of research has been such that the timehonoured problems cannot necessarily be attacked by the time-honoured methods. In many fields of enquiry the problems have entered upon a new stage, and it would seem that the only means of approach lies in a deeper and wider study of the 'morphology' and 'physiology' of bodies of thought ${ }^{2}$. The poet, the philosopher, the

[^245]mystic, and all whose façon de penser may happen to appear incomprehensible, are clearly subjects for psychological investigation, and it is absolutely contrary to the principles of research to be content with merely estimating their value from some subjective standpoint. It is obvious that men may be psychically incomprehensible to us, but perfectly intelligible to one another, and if it were possible to plan a psychical series between primitive prehistoric man and a Plato there would be no gaps. Nothing is more instructive, perhaps, than the difference between anthropomorphic and non-anthropomorphic attitudes, or between the recognition of human personality and the earlier non-recognition of it. Yet the transition from one to the other can occur in the 'evolution' of the thought of a single individual. One is tempted to conjecture that anthropomorphism is a fundamental stage in the evolution of the thought of the individual and of the group. But it may be only one stage: neither the individual (in his babyhood) nor the group can be regarded as primarily anthropomorphic, and one may ask whether we can conceive of a disembodied spirit or of a Universal Mind as thinking in terms of human parts and passions. It is noteworthy that while it is not difficult to handle the data where there are supernatural beings of a more or less personal character; in totemism, on the other hand, where the effective ideas are centred upon an animal or plant, the mind of the native tends to elude us. May this not be because he has not reached notions of human personality, whereas we find it exceedingly difficult to think in any other terms? When a certain stage is reached the sub-human totem disappears, the beliefs attached to it now become more recognisably 'supernatural,' there are ideas of personality, and the supernatural beliefs are anthropomorphic. One is tempted to say that primitive thought outgrows the pre-anthropo-

[^246]$$
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morphic stage as surely as the child passes beyond the stage of the inanimate doll or the 'theriomorphic' teddybear. This is not the place to pursue such conjectures further, but it may be suggested that the significant steps in the evolution of thought are due to the increasing knowledge of personality, to a deepening of self-consciousness and to a widening experience of life ${ }^{1}$.

Dr Farnell has recently pointed out that theriomorphism lends itself to mysticism. When the Babylonian religious minds 'felt the human imagery too narrow and straightened for their struggling sense of the Infinite...the expression becomes mystic, and...avails itself of theriomorphic imagery ${ }^{2}$.' Perhaps this is not altogether novel ; an intimate connection between totemism, mystery cults and mysticism appears to have suggested itself to others ${ }^{3}$. May this not be that all that is non-anthropomorphic appears similar to those accustomed to think anthropomorphically, or that every façon de penser which lies somewhat outside our own seems to us, as it does to the 'man-in-the-street,' to be more or less alike? Now, although the term mysticism is a singularly flexible one, there is a similarity among the different forms of mysticism. When the mystics endeavour to describe their unique states of consciousness and express their own personal experience of the ultimate realities, they have naturally been dependent upon the current phraseology, the ordinary thought of their environment. The mysticism of Christians and Jews tends to be similar, and to differ from that of the Mohammedan, whose body of thought of course does not include the Bible. The pantheist mystics, in turn, tend to be alike, as distinct from those

[^247]who belong to any of the historical religions. Hence, it would seem that we may distinguish between (a) a psychical state, common to mystics, with all the phenomena that can be abstracted and handled psychologically, and (b) the more external expression, which, though subjectively fundamental and absolute, varies objectively according to the environment, the life-history and the temperament of the individual. The profoundest and-subjectively-the most real of all states would thus appear to be-from a psychological point of view-essentially the same everywhere, and we are therefore entitled to look for it among rudimentary peoples. Since its external expression is conditioned by the thought of the environment we may consequently look for (a) the psychical state and all the features common to it, and (b) those relatively external features which are peculiar to the individual and his environment.

It is possible to argue for a fundamental relationship between the most primitive of existing totemic cults and the most advanced of the historic religions. The comparative study of mysticism simply enhances this. But we have to distinguish the fundamental similarities, which have their own value, from the fundamental differences which are all-important for the evolution of thought or for the history of the areas concerned. Now, no one can doubt the powerful impression made by the mystical state upon those who experience it, witness it, or are in any way appreciative. Yet, since mysticism recurs in a great variety of external forms from totemism upwards, it follows that any given mystical phenomenon, however impressive or persuasive, is not necessarily up to the level of the highest stage of thought. It is well known that in times of excitement or stress there may be outbursts which will be regarded as 'survivals' of primitive 'savagery' or the like, but it is as important to realise that there may be behaviour, with all the profound impressiveness of mysticism, yet unworthy of the intellectual,
social or ethical height reached by the environment as a whole ${ }^{1}$. This argument is strengthened by the very noteworthy fact that those features which have proved to be of the greatest value for the evolution of thought have only become so as a result of adjustment of individualistic, specialistic or departmental activity to the environment. For example, those essentially individualistic phenomena, the prophets of Israel, were outside and apparently 'superior' to the current thought, and at first glance the compromise that resulted seems to be a deterioration. Closer inspection, however, shows that the ideals of the few were adjusted to the working life of the people as a whole ${ }^{2}$. Hence it is best to regard mystical and related phenomena, like all survivals, as logically outside the ordinary trend of thought in the environment, as nonnormal rather than as supernormal or abnormal. This procedure is on the important principle of distinguishing the evolution of the individual from that of his environment.

The mystical and allied states are unique individual states with certain fundamental similarities, and it agrees with this that a fundamental similarity is found among some or among all religions by those who, haply, are not in favour of any of them. But we can go further. Writers have often inveighed against some or all religions, but have proceeded to recommend some new system of their own, which, as the next impartial observer has pointed out, had all the essential characteristics of a religion. Nay more, a French writer has recently protested that every philosophy, not purely scientific, is nothing but a reinforcement of various orthodox Christianities. Again, to the student of natural science certain modern philosophies irresistibly recall the old alchemists and their

[^248]philosophies ${ }^{1}$. Scientists themselves will sometimes gravely show the door to religious, philosophical or metaphysical systems, but as they proceed to deal with the more ultimate questions, their argumentation is forthwith of a metaphysical character, though perhaps not in the ordinary metaphysical phraseology. Mr Cornford, in turn, has recently illustrated the intimate connection in ancient Greece between religion, philosophy, metaphysics and science such as it then was ${ }^{2}$. All thoughtful men endeavour deliberately to systematise their experience and knowledge-others do this un-consciously-and the interesting fact is that some external and impartial observer is usually struck by the invariable approximation to essentially similar results.

If the attempt be made to synthesize or systematise upon the basis of scientific knowledge it is not to be forgotten that the synthesis of the average man-and he rules the world-is a natural growth, and that it covers the whole of life. Hence, a scientific synthesis must find a place for the 'supernaturalistic' data, in other words, it must appeal to those numerous individuals who are responsible for their 'survival ${ }^{3}$.' Not only is it premature, therefore, to anticipate a satisfactory synthesis based solely upon 'scientific' knowledge, but all the results of unbiassed comparison combine to suggest that a synthesis fundamentally different from those that have

[^249]hitherto prevailed, if not inconceivable, at least cannot conceivably influence the generality of mankind.

The effort to systematise experience and knowledge begins early, and can be seen even on rudimentary levels of thought. The similarities discovered by the 'comparative method' are not due merely to borrowing or imposition or any artificial cause; we have to explain the differences, to balance successful influence against the failures. The similarities are such that one is tempted to postulate a single psychical type corresponding to the single physical type of all mankind. By this I mean that not only can we say with the famous ethnologist A. H. Post that 'thinking goes on within us,' but that it goes along certain well-marked lines, it keeps within certain well-defined limits. We cannot conceive any discovery or any advance in physical evolution that would nullify the 'links' which allow our minds to unite the profoundly different forms of organic life ; so, too, it seems impossible, on both biological and psychological grounds, to imagine a further development of thought along paths that shall be entirely new.

We are prone to think of thought in terms of material structures, to 'pull down' and 'build up' upon new 'foundations,' and so on. But we should rather think of it in terms of something that does move and evolve. When, by the comparative method, we discover resemblances and differences it is perhaps helpful to think of 'bodies' of thought as morphologically similar but superficially different, or as superficially similar but morphologically different. Or we may think of the successive stages of organic evolution where each stage is profoundly similar to, but as profoundly different from, its predecessor, much in the same way that man is horribly like, but marvellously unlike, the ape: we see the resemblances or the differences according to our point of view ${ }^{1}$. Consequently, we may have a profound evolution

[^250]of thought, although there may seem to be a fundamental similarity between the old and the new; and one of the objects of this essay is to suggest that the 'comparative method' has opened the way to several enquiries of rather novel character which will be of distinct value not only for certain special studies, but also for the far more vital study of human nature. In human nature there is a perfect blend of something that is variable and something that is more invariable, and the continued collection and correlation of differences and resemblances will assuredly be of practical utility in an age which feels itself able to give effect to its ideals and to lay down the lines of its future.

The attempt has been made in these pages to introduce certain questions as they present themselves to a student of Biblical history. One desired a more adequate way of regarding the 'evolution' or 'survival' of thought, 'primitive' or otherwise. On examination, the survival often proves to be merely outside some particular body of thought, but not only is its survival an instructive fact, analysis will often show that it is really an unusual or non-normal form of more ordinary thought (cf. p. 383). 'Progressive' and 'extreme' ideas are in their turn essentially non-normal, rather than abnormal; and even mysticism is essentially only an extraordinary form of what is more ordinary in ordinary individuals. Everywhere the thought of an area is interconnected; it is only our way of regarding it that leads us to see clearly differentiated groups or varieties. We cannot intelligently conceive a species of thought different from current examples; we cannot intelligently conceive a Mind that is isolated from all current forms: there could be a superior Mind genetically connected with
argumentation based upon resemblances which are, or which are alleged to be, fundamental ; cp.e.g. Christianity and some related religion; or the origin of the far-reaching theories involved in ophiolatry, Pan-Babylonism, and the like, which are based upon sundry points of contact. The usual error is to assume that a feature necessarily belongs to the same context in which its analogue or parallel is found. From a human bone we can, of course, infer a human skeleton, but when the situation is problematical, to style the bone a human one may be a petitio principii, and our knowledge of what corresponds to the human skeleton itself will often be iinperfect.

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ours but more or less incomprehensible to us, even as is the simpler mind of the child. It is detrimental to divide aspects or groups of thought into different water-tight compartments; the danger is seen in excessive specialism in research and in its counterpart in life ${ }^{1}$.

In periods of stress and dislocation, when there are many groups of separate and conflicting interests, there will necessarily be a greater amount of non-normal people. As at the present day, one will not have to look far for features that will appear ' primitive' or ' progressive,' 'recessive' or 'extreme.' The fundamental problems of social and political life are admittedly concerned with the adjustment and improvement of all the current conditions, and consequently they involve systems of ideas that are to guide or unite men, to regulate or reorganize society. Hence, any 'new' conditions of the future will rest essentially upon 'new' ideas which will permeate belief and practice ; that is to say any equilibrium of conditions will be essentially psychical, it will be comprehensive, not departmental. The effort has been made in this essay to illustrate the importance of anthropology, when studied psychologically, for its contribution to a better knowledge of the possibilities and limitations of human endeavour. Unless this knowledge be pursued and applied to the practical aims for the improvement of life we are likely to commit the error of the savage when he relies upon his 'magical' practices and upon them alone. There can be no harmony-no synthesis-without a deeper analysis.

It is at least a coincidence that, in an age of increasingly grievous unrest, psychological and anthropological studies have been quietly and independently preparing the way for the methodical study of the accumulated experiences of mankind. The measure of light these studies have already brought is surely a guarantee that they have much more to offer. A rich harvest awaits the labourer pro-

[^251]vided he be skilled. Upon the Biblical student the survey of the vicissitudes of four or five millennia leaves a firm conviction of a positive advance which, however, is utterly independent of the fate of particular areas or peoples. Each stage in the advance is seen, on retrospection, to be conditioned by its predecessor, but it could not have been anticipated in its broad historical outlines; only as evidence accumulates may one hope by a more comprehensive survey of all the data to determine, however imperfectly, all that is of essential importance and what the next stage can be made to be ${ }^{1}$.

To the student of the Old Testament the recent psychological and anthropological studies have brought fresh light-but fresh difficulties. The problems have become far more intricate, but, thanks to these studies, some highly promising ways of attack have been signalled. If at times the problems seem hopeless and the labours of past generations appear to have failed, again these studies bring new life, new hope and a new spirit. It is this psychical, 'spiritual,' and almost indefinable development which is all-important, and these studies combine with biological research to give the assurance that throughout the entire gamut of evolution the consciousness of the creature can always cope with the environment of its day. What is fundamental in all evolution is the evolution of the whole complex-the individual, the environment and the relationship between them. How essential is this relationship is obvious if we consider that the fuller apprehension of man's environment and all that depends thereon are the Alpha and Omega of life. Psychology and anthropology are only two of the numerous and various 'specialistic' aids to the Art of Living. The individual, like the specialist, can contribute his quota to the environment, but it takes a many to make a world;

[^252]and while Nature manifests not the slightest inclination to adapt herself to the individualist, the individual, like the 'special study,' invariably gains by attention to the claims of others. The evolution of the completest imaginable environment, like that of a group or of a field of research, is a collective process depending upon all the constituents; even as at any given time in the past the conditions are the result, not of some 'self-growing' activity (p. 38 I), but of the action and interaction of all the elements concerned : all are necessary (cf. p. 375 seq.).

These rather discursive pages have brought us back to the starting-point. The facts of evolution in the inorganic and organic world can only be synthesized by the complementary enquiry into the evolution of a mind which has enabled men to discover these facts and impels them to synthesize them. Biological research tempts us to look for some fundamental psychical similarities among all men, and the modern critical study of ideas and beliefs has strongly emphasized the close relationship among men all the world over as regards their profoundest and most deep-seated intuitions and convictions. While the real significance of this has yet to be determined, important preliminary questions distract attention. These involve general presuppositions touching the 'movement' of thought, its 'advance' and 'set-back.' The aim has been, in these pages, to indicate various arguments which in some respects seem to offer a new way of approach to these and other vital questions which stand in between the data of modern knowledge and the more ultimate problems of a philosophical and metaphysical character. Needless to say, if considerations of space have compelled a certain dogmatical brevity, the present writer is fully aware of the dangers of dogmatism in the field of anthropology, and only trusts that anything that provokes restatement or a criticism, however energetic, is at least indirectly contributing to the subject of this paper.

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## THE SERPENT AND THE TREE OF LIFE

In the Biblical narrative of the Fall of Man a difficulty is created by the mention of two forbidden trees, namely, the tree of the knowledge of good and evil, and the tree of life. After discussing the difficulty, Principal Skinner in his commentary on Genesis sums up as follows: ' On the whole, the facts seem to warrant these conclusions: of the Paradise story two recensions existed; in one, the only tree mentioned was the tree of the knowledge of good and evil, while the other certainly contained the tree of life and possibly both trees; the former supplied the basis of our present narrative, and is practically complete, while the second is so fragmentary that all attempts to reconstruct even its main outlines must be abandoned as hopeless ${ }^{1}$.'

The attempt which my learned and judicious friend describes as hopeless I am rash enough to make; but I do so with a full sense of my temerity and not so much in order to offer a definite solution of the problem as to indicate a new quarter from which a glimmer of light appears to fall upon it.

In studying lately the myths which savages tell to account for the origin of death I was struck by the frequency with which the serpent figures in them ${ }^{2}$. The following, for example, is the story which the natives of the Gazelle Peninsula in New Britain tell to explain why

[^253]death came into the world. The Good Spirit, whom they call To Kambinana, loved men and wished to make them immortal, but he hated serpents and wished to kill them. So he sent his brother to men with this cheering message: 'Go to men and take them the secret of immortality. Tell them to cast their skin every year. So will they be protected from death, for their life will be constantly renewed. But tell the serpents that they must henceforth die.' However, the messenger did not give the message aright ; he ordered men to die and he betrayed to the snakes the means of making themselves immortal. Since that time men have died, but snakes have cast their skin every year and therefore live for ever ${ }^{1}$. Similarly in Annam they say that Ngoc hoang sent a messenger from heaven to tell men that when they reached old age they should change their skins and live for ever, but that when serpents grew old, they must die. The messenger came down and gave the message quite correctly. He said: ' When man is old, he shall cast his skin ; but when the serpent is old, he shall die and be laid in a coffin.' It happened very unfortunately that a brood of serpents overheard the message, and falling into a passion they said to the messenger, ' You must say it over again and just the opposite, or we will sting you.' That frightened the messenger so much that he repeated his message with the fatal change, 'When he is old, the serpent shall cast his skin; but man, when he is old, shall die and be laid in a coffin.' That is the reason why all creatures are subject to death except the serpent, who, when he is old, changes his skin and lives for ever². Again, the natives of Vuatom, an island in the Bismarck Archipelago, say that a certain To Konokonomiange bade two lads fetch fire, promising that if they did so they should never die. But they would not hearken to him, so he cursed them, saying, 'What!

[^254]You would all have lived! Now you shall die, though your soul shall live. But the iguana and the lizard and the snake shall live, they shall cast their skin and live for evermore ${ }^{1}$.' Again, the Arawaks of British Guiana relate that once upon a time the Creator came down to earth to see how his creature man was getting on. But men were so wicked that they tried to kill him; so he deprived them of eternal life and bestowed it on the animals which renew their skin, such as serpents, lizards, and beetles ${ }^{2}$.

In certain parts of East Africa there is a black or dark blue bird with a white patch on each wing and a crest on its head, which perches on the tops of trees and utters a wailing cry. The Gallas call it holawaka or 'the sheep of God,' because its plaintive note resembles the bleating of a sheep; and they explain the anguish which the bird appears to suffer by the following tale. Once upon a time God sent that bird to tell men that they would not die, but that when they grew old and weak they should slip off their skins and so renew their youth. In order to authenticate the message God gave the bird a crest to serve as a badge of his high office. Well, off the bird set to deliver the glad tidings of immortality to men, but he had not gone far before he fell in with a snake devouring carrion in the path. The bird looked longingly at the carrion and said to the snake, 'Give me some of the meat and blood and I will tell you God's message.' 'I don't want to hear it,' said the snake tartly and continued his meal. But the bird pressed him so to hear the Gospel tidings, that the snake rather grumpily consented. 'The message,' then said the bird, 'is this. When men grow old they will die, but when you grow old you will cast your skin and renew your youth.' That is why people grow old and die, but snakes crawl out of their old skins and renew their youth. But for this gross perversion of

[^255]the message God punished the wicked bird with a painful internal malady, from which he suffers to this day; and that is why he sits on the tops of trees and wails, ' My God! my God!'1

The same contrast in respect of immortality between men and certain of the lower animals is expressed or implied in other stories of the origin of death, though in some of them serpents are not expressly mentioned. Thus the Kai, a Papuan tribe of German New Guinea, account for the origin of death as follows. They say that at first men did not die but renewed their youth. When their old brown skin grew wrinkled and ugly, they stepped into water and stripped it off and got a new, youthful, white skin instead. In those days there lived an old grandmother with her grandchild. One day the old woman, weary of her advanced years, bathed in the river, cast off her withered old hide, and returned to the village spick and span in a fine new skin. Thus transformed she climbed up the ladder and entered her house. But when her grandchild saw her, he wept and squalled and refused to believe that she was his granny. All her efforts to reassure and pacify him proving vain, she at last went back in a rage to the river, fished her wizened old skin out of the water, put it on, and returned to the house a hideous hag again. The child was glad to see his granny come back, but she said to him, 'The locusts cast their skins, but ye men shall die from this day forward.' And sure enough so they have done ever since. That is why men are now mortal ${ }^{2}$. So in the Banks' Islands and the New Hebrides they say that 'at first men never died, but when they advanced in life they cast their skins like snakes and crabs, and came out with youth renewed.' But in these islands, just as in New Guinea, the happy days of human immortality were brought to an end by a foolish old woman,

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who resumed her cast-off skin all to please a blubbering infant ${ }^{1}$. Such momentous issues may hang on incidents seemingly so trivial.

Again, the Samoans say that of old the gods held a council to decide what should be done with men. One god said, 'Bring men and let them cast their skin, and when they die let them be turned to shellfish or become a torch light (which when shaken in the wind blazes out again). When man dies, let him come to life again. What do you think of that?' But Palsy stood up and said, ‘Bring men and let them become a fire of pua wood (which when it dies down cannot be blown up again). Let the shellfish change their skin, but let men die.' Just then it began to rain, and as the gods dispersed to seek shelter, they cried 'Let it be according to the counsel of Palsy! Let it be according to the counsel of Palsy!' So men died, but shellfish cast their skin ${ }^{2}$. The implication that shellifs which cast their skins are immortal meets us again in another story of the origin of death. The natives of Nias, an island to the west of Sumatra, say that when the earth was created a certain being was sent down from above to put the finishing touches to the work. He ought to have fasted, but unable to withstand the pangs of hunger, he ate some bananas. The choice of food was very unfortunate, for 'had he eaten river-crabs, men would have cast their skins like crabs and would always have renewed their youth and would never have died; but as it is death has come upon them through the eating of the banana ${ }^{3}$.' Another version of this story adds that 'the serpents on the contrary ate the crabs, which in

[^257]the opinion of the people of Nias cast their skins but do not die ; therefore serpents also do not die but merely cast their skin ${ }^{1}$.'

Thus it appears that animals which periodically cast their skins, such as serpents, lizards, and various sorts of insects and shellfish, are believed by many savages to renew their youth with the change of integument and thereby to live for ever. Accordingly the people who hold this opinion tell stories to explain why man has missed the boon of immortality and animals have obtained it. In some of these myths it is said or implied that the Creator intended to make men immortal, but that his intention was thwarted by the fraud or mistake of a messenger, by the disobedience or wickedness of men, or by the wiles of serpents, who succeeded in appropriating the gift of immortality and depriving man of it.

May we not surmise that a double myth of this sort, intended to explain at once the mortality of man and the supposed immortality of certain animals, particularly of serpents, underlies the Biblical narrative of the Fall of Man? Such a myth might perhaps clear up certain obscurities and remove certain discrepancies which adhere to the narrative as it stands in the third chapter of Genesis. In the first place it is to be observed that the serpent which tempted Eve to her fall is a serpent and nothing more. There is not a hint in the story from beginning to end that the tempter was an evil spirit who temporarily assumed the guise of a snake for the purpose of deceiving the first woman. It is true that the serpent has the power of speech, but there is nothing remarkable in that; in the tales which primitive peoples tell no incident is commoner than the introduction of animals who talk in their own person without the least implication that they are the mere stalking-horses of spirits, whether good or evil. The notion that the serpent in the Garden of Eden was the devil in disguise is only a gloss placed on the

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ancient narrative by theologians of a later age, to whom the savage simplicity of the story was almost as strange and unintelligible as it is to most civilized readers of the Bible at the present day.

In the second place the clue furnished by savage stories of death and the serpent may help us to an explanation of the two trees in the Garden of Eden. As the narrative stands, only one of the trees, the tree of the knowledge of good and evil, plays an active part, if I may say so, in the story. The man and woman eat of the fruit of the tree and incur thereby the doom of death pronounced in advance by the Creator on them if they should dare to taste of it: 'In the day that thou eatest thereof thou shalt surely die ${ }^{1}$.' This suggests that in the original form of the story the tree was not a tree of the knowledge of good and evil but simply a tree of death, the fruit of which was endowed with such fatal properties that whoever tasted of it thereby forfeited the prospect of immortality. Thus it would contrast exactly with the tree of life, the fruit of which on the contrary possessed such marvellous virtue that he who tasted of it would live for ever ${ }^{2}$. But in the story of the Fall, as it is recorded in Genesis, the wonderful fruit of the tree of life plays no part : nobody eats of it : the tree stands in the background as a sort of theatrical supernumerary or dummy, while the great tragedy is being played by the man, the woman, and the serpent round the other tree in the foreground. Only as the curtain falls do we catch a glimpse of the tree of life patrolled by angel guards with flaming swords, while our first parents look back sadly at the gate of Paradise, 'with dreadful faces thronged and fiery arms,' and think when it is too late of the opportunity they have missed. We may conjecture that the tree of life once served another purpose than merely to be lit up by the lurid flashes of angel swords in that great transformation scene where the splendours of Eden faded for

[^259]ever into the light of common day. If the analogy of the savage tales which we have examined does not deceive us, we may suspect that in the original Hebrew story the subtle serpent not only persuaded the woman to eat of the tree of death but himself ate of the tree of life and hence was believed perpetually to renew his youth by casting his skin and so to live for ever.

To put it shortly, I surmise that the old tradition which the redactors of Genesis had before them may have run somewhat to this effect. In the beginning the Creator, kindly disposed to mankind, the favourite work of his hands, planted two trees in the happy Garden, a tree of life and a tree of death, and left it to the first man and his wife to choose between them, hoping that they would choose the tree of life and shun the tree of death. But the cunning serpent, repining at the prospect of immortality thus held out to men and at the doom of mortality portended to all other earthly beings, contrived to persuade the woman to eat of the deadly fruit of the tree of death, while he himself partook of the lifegiving fruit of the tree of life. That, the narrator may have said in conclusion, is the reason why mankind has ever since been mortal and serpents immortal ${ }^{1}$.

If that was the original form of the story we can readily understand that in after-days an enlightened editor, who no longer believed in the immortality of serpents, should simply have expunged the old explanation of their immortality from the narrative, leaving the tree of life to stand side by side with the tree of death in the midst of the Garden, although by cutting out the incident of

[^260]the serpent eating of the fruit of the tree of life he had practically rendered the tree itself otiose and superfluous. It is only when we have restored this lost feature of the story, as we may do with the help of similar stories still current among savages, that the lopsided narrative, so to say, rights itself and recovers its balance. We now understand why there were two trees big with fate in the garden, and why the serpent tempted Eve to eat of the wrong one. As the narrative at present stands in Genesis, no motive is assigned for the malignant suggestion of the serpent ; he gains nothing by the Fall of Man, on the contrary he loses, for he is cursed henceforth and must ever afterwards crawl on his belly, eat dust, and be crushed under the heels of men ${ }^{1}$. But on the hypothesis which I suggest the serpent had everything to gain by inducing the man and woman to eat of the tree of death, for thereby he by implication secured for himself the fruit of the tree of life and with it the exclusive privilege of immortality. This bitter reflection gives double point to the enmity with which man was henceforth to regard the serpent ${ }^{2}$; in the crawling reptile he saw not merely a cunning foe who had betrayed him to his ruin, but a successful rival who had won for himself the great prize out of which he had contrived to wheedle his superior but unwary competitor. In this, or some such form as this, the story may have been known to the Babylonians ; and it seems not impossible that in a more or less fragmentary condition it may still survive on some of the many unread and unpublished tablets of Babylonian literature.

In conclusion I will add a few miscellaneous comparisons which appear to support this new reading of the old story of the Fall of Man. The Wemba of Northern Rhodesia say that in the beginning the Creator, whom they call Leza, gave the first man and woman two small bundles, in one of which was life (bumi) and in the other death (mfwa), whereupon the man unfortunately chose

[^261]' the little bundle of death ${ }^{1}$.' Here nothing is said about serpents or other animals obtaining the gift of immortality, but the contrast between the bundle of life and the bundle of death, which were submitted to the choice of man, resembles the contrast between the tree of life and the tree of death which, if I am right, figured in the original version of the Biblical story. Another version of the tale of the two bundles, while it differs from the foregoing in not explicitly calling one of the bundles the bundle of death, has another feature in common with the story of Genesis, inasmuch as it represents the Fall of Man as due to the weakness of woman. The Balolo of the Upper Congo say that one day, while a man was working in the forest, a stranger with two bundles, one large and one small, went up to him and said, 'Which of these bundles will you have? The large one contains knives, looking-glasses, cloth and so forth ; and the small one contains immortal life.' 'I cannot choose by myself,' answered the man ; 'I must go and ask the other people in the town.' While he was gone to ask the others, some women arrived and the choice was left to them. They tried the edges of the knives, decked themselves in the cloth, admired themselves in the looking-glasses, and, without more ado, chose the big bundle. The stranger, picking up the small bundle, vanished. So when the man came back from the town, the stranger and the little bundle were gone. The women showed off the trinkets and gewgaws which they had got from the big bundle, but death continued in the world. So the people often say, ' Oh, if those women had only chosen the small bundle, we should not be dying like this!'2

Again, we may compare the enmity between man and the serpent, as it is represented in Genesis, to the enmity with which some Bantu tribes regard the chameleon or

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the lizard because they believe the creature to have been the agent of bringing death into the world. Thus the Zulus say that long ago Unkulunkulu or the Old, Old One sent a chameleon to men : 'he said to it, "Go, chameleon, go and say, Let not men die." The chameleon set out ; it went slowly; it loitered in the way; and as it went, it ate of the fruit of a tree, which is called ubukwebezane. At length Unkulunkulu sent a lizard after the chameleon, when it had already set out for some time. The lizard went ; it ran and made great haste, for Unkulunkulu had said, "Lizard, when you have arrived, say, Let men die." So the lizard went, and said, "I tell you, It is said, Let men die." The lizard came back to Unkulunkulu, before the chameleon had reached his destination, the chameleon which was sent first ; which was sent, and told to go and say, "Let not men die." At length it arrived and shouted, saying, " It is said, Let not men die!" But men answered, "O! we have heard the word of the lizard ; it has told us the word, It is said, Let men die. We cannot hear your word. Through the word of the lizard, men will die."' This tradition 'lives among the natives to the present time, and is manifested by the dislike they entertain for the chameleon. It is frequently killed. But it is used as a medicine; among other uses it is mixed with other things to doctor their gardens, that the birds may not destroy the corn ; it is employed because it went slowly, and therefore will prevent the birds from hastily entering the gardens! But the lizard is an object of much greater hatred, and is invariably killed if the person who sees it is able to kill it ; but it is very cunning, and, as they say, "escapes only by its cunning." As they kill it they say, "Let be! This is the very piece of deformity which ran in the beginning to say that men should die."'1 According to another version of this Zulu story the fruit

[^263]which brought death into the world and all our woe was the mulberry, for it was mulberries which the chameleon, charged with a message of immortality to men, loitered by the way to eat so that he was outrun by the lizard, who posted after him with a message of death. 'They say, people would not have died, if the chameleon had arrived first, and shouted, "Let not the people die"; whereas the lizard came first, and said, "Let the people die." But, even now, a portion of the people hate the lizard, saying, "Why is it that he ran first, and said, Let the people die?" Some see it and love to beat it, and kill it, saying, "Why did it speak?" And again, a portion of the people, those who hear by the ears, being told by a few old people, having heard this, they hate the chameleon, and love to push it aside, saying, "That is the little thing which delayed to tell the people that they should not die; had he told them, we too should not have died; our ancestors also would have been still living; there would have been no diseases here on the earth. It all comes from the delay of the chameleon."' ${ }^{1}$ The same story of the origin of death is told by many other Bantu tribes of Southern Africa ${ }^{2}$. Among the Thonga, about Delagoa Bay, 'this myth is so strongly believed that shepherds, when they see a chameleon slowly climbing on a tree, begin to tease it, and, when it opens its mouth, throw a pinch of tobacco into it, and are greatly amused at seeing the poor thing change colour, passing from green to orange, and from orange to black, in agony, to the great delight of the little boys: they thus avenge themselves on the chameleon!'3 The Angoni of British

[^264]Central Africa tell the same tale of the origin of death ; therefore they hate the chameleon and put snuff in its mouth to kill it, because by its delay in bearing the glad tidings of immortality the sluggish creature allowed the grey lizard to outrun it with the gloomy message of death ${ }^{1}$.

It can hardly be accidental that the animal which many African tribes regard as the cause of death among men is a lizard, whether a chameleon or a lizard of another species; for lizards belong to the class of animals which periodically cast their skin, and which therefore in the opinion of many savages live for ever. We may suspect that in some African versions of the myth the lizard perverted the message with which he was charged, so that instead of running, ' Men shall cast their skins and live for ever, but lizards and serpents shall die,' it ran, ' Men shall die, but lizards and serpents shall cast their skins and live for ever.' But of such a version I do not remember to have met with any trace in African folk-lore. As we are therefore launched on a sea of pure conjectures, I will venture to add one more to the swelling flood. Can it be that in the original form of the Hebrew narrative the serpent was the messenger of immortality sent by God to warn men against eating of the tree of death lest they should die, and to persuade them to eat of the tree of life that they might live for ever ? and that the wily messenger turned his knowledge of the secret to his own advantage by inducing men to eat of the tree of death and so to become mortal, while he himself partook of the tree of life and so became immortal, he and the whole race of serpents after him? If that was so, God had indeed good reason for cursing the false messenger who had betrayed his trust so grossly.

Be that as it may, the savage notion of immortality obtained by casting an old skin and putting on a new one probably gives the clue to the part played by the serpent in the Biblical narrative. The same idea may explain

[^265]why serpents are often supposed to be possessed of medical knowledge and in particular to be acquainted with magical plants, or magical waters, which have the power of restoring the dead to life ${ }^{1}$. If serpents can renew their own life by casting their skins, they must clearly have discovered the secret of immortality and be able to impart it to others. No wonder then that in Greece and elsewhere a serpent has been the symbol of the god of healing. It seems just possible that the use of the brazen serpent to heal those who were bitten by real serpents in the wilderness ${ }^{2}$ was based on the general notion of the curative powers of the reptiles ; but more probably the case was one of simple homœopathic magic, the bite of the live serpent being healed by the sight of the brazen serpent, just as everybody knows that the best cure for the bite of a dog is a hair of the dog that bit you.

Lastly, the observation of the cast skin may partly explain why serpents are so often thought to embody the spirits of the dead ${ }^{3}$. Primitive man may imagine that at death his soul will shuffle off its old body just as a serpent sloughs off its old skin ; and from the comparison he may naturally, though illogically, proceed to identify the departed soul with the serpent which in a sense it is supposed to resemble. The same naïve train of thought would account for the Greek and Burmese conception of the disembodied soul in the shape of a butterfly ${ }^{4}$; for as the butterfly creeps forth from the grub, so, it might be imagined, does the human soul at death escape from this vile body to spread its gay wings and flutter in the sunshine of some higher and brighter world unknown. From such simple observations of nature may primitive man draw far-reaching hopes of a life beyond the grave.

> J. G. Frazer.

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## THE SETTLEMENT OF BRITAIN IN THE PREHISTORIC AGE

For my contribution to the work presented to Professor Ridgeway by his colleagues and admirers, to mark our appreciation of his researches in the borderland of history and prehistory, I have chosen as my subject the prehistoric settlement of Britain, because it relates to events in the remote island of Britain during the period in the Mediterranean region dealt with in The Early Age of Greece (Ridgeway, Camb. University Press, 8vo, 1901). We must first consider the physical geography of the British Isles, which ruled the lines of migration, and the distribution of the various incoming tribes.

Britain first became an island in the interval that divides the Pleistocene or continental from the prehistoric period. The land gradually sank until the North Sea joined the British Channel in the Straits of Dover, flowing up the valley between Britain and the continent. A like depression took place in the land formerly uniting Ireland with the British Islands, until the Atlantic and the Irish Sea rolled over the low-lying region to the west, ultimately separating Ireland and the Isle of Man from our shores. This submergence was not completed when the first neolithic hunters and herdsmen arrived in Britain. The occurrence of neolithic implements and domestic animals in the submarine forests on the shores of the east coast in Holderness and in Suffolk, and on the west on both sides
of the Bristol Channel, and in North Wales, leaves no doubt as to their having penetrated into the forest at a time when there was land off the whole line of the eastern coast and when on the west Morecambe Bay and the estuaries of most of our rivers such as the Mersey, Dee and Severn, were the feeding grounds of the stag, roe deer and elk, and the haunt of foxes, wolves and bears. The same holds good with regard to the estuary of the Thames and the other rivers on the east side. Sheppey and Thanet, the Isle of Wight and Anglesey overlooked this forest-clad plain, and were not yet islands. From the slowly incroaching sea line a dense forest extended inland, even over the summit of the Pennine Chain and far up the flanks of the Welsh hills, the Lake country and the Scotch Highlands, growing as high as the climate and the soil would allow. In the low country the monotony of the forest was only broken by the marshes and the lakes, and in the uplands by the crags and windswept moors; and in south-eastern England by the low scrub of the chalk downs intermingled with tracts of grass. There were morasses at the bottom of nearly every valley, caused by the blocked drainage, and in some cases probably caused by the dams made by the beavers.

The forest varied according to the conditions of growth. Oak and ash, yew and birch, and dense masses of Scotch fir occupied the drier soils; the willow, the alder and the birch the swamps. Dense thickets of hazel in the glades attracted the squirrels, just as on the moors and hills the heather, the bilberry and the cranberry attracted the grouse and capercailzie. On the chalk downs there were but few trees, and those mostly in the valleys. There were, however, stunted yews and dwarf junipers in the hollows, leaving the upper grass-covered tops to be varied by clumps of gorse. In the lower lands generally there was but little grass, and that only where the trees were few, or where the forest had been destroyed by fire-as is the case in the American prairies.

It was under these conditions that the first ${ }^{1}$ neolithic settlers arrived in their canoes from the continent, bringing with them their domestic animals,-the short-horned ox, sheep and goats, pigs, horses and dogs, good for herding and hunting, and introducing the arts of pottery-making and of a rude husbandry.

The migration into Britain was probably by way of the Straits of Dover, where the Kentish Downs, clearly visible from the shores of Gaul, would naturally excite the curiosity of the tribes pasturing their herds and flocks on the downs extending from Calais, past Cape Grisnez, in the direction of Boulogne. The first adventurers bringing back the news that there were pastures in Britain like their own would begin a migration into the unknown land, that was probably accelerated by the pressure of other tribes on their south and west. Here, like Commios the great leader of the Belgic Gauls fleeing from the Roman arms, they were protected from their enemies by 'the silver streak.' After establishing themselves on the grassy tracts of the North Downs they could easily find their way along the coast to the cliffs of the South Downs in the district of Eastbourne, Beachy Head and Brighton. From these two centres they would naturally follow the uplands westwards and northwards, avoiding the dense forests and morasses of the 'Silva Anderida' (the Weald), the valley of the Thames, and of all the other river valleys in Britain. In this way they penetrated into nearly all the dry uplands throughout the British Isles. That this was the case is proved by the distribution of the neolithic implements, camping grounds and burial places, chiefly met with in the dry uplands. They, however, penetrated the forests in the lower grounds in the hunt, and, being possessed of canoes, followed the courses of the streams from their mouths

[^267]upwards. We might, therefore, expect from all these considerations that the neolithic tribes in Britain were mainly confined to the uplands and dry grounds generally, that offered facilities for camping. Some of the clusters of round huts were fixed settlements, protected by palisades, ramp and fosse, while in other cases, especially in Ireland, protection was afforded by the settlement being placed on artificial platforms of clay, stones and timber, a short distance away from the margin of the lakes.

The paths worn by use between one settlement and another in the uplands became the ridgeways of our modern topography, clinging to the ridges and only descending into the valleys where there was no alternative. They follow the lines of least resistance, and are in use to-day, as for example those leading from the flint-mining settlement of Cissbury, southwards on the crest of the Chalk-hills, to Offington and Broadwater near Worthing.

We may infer from the small number of neolithic finds, as compared with those of the ages of Bronze and Prehistoric Iron, that the population of the uplands was small as compared with that during the later ages; while the fact that they penetrated into the most remote parts of the British Isles indicates that they were dwellers in the land for a very long period. And this comparison has a deeper significance from the fact that stone implements are not readily destroyed by the elements, while the metals, characteristic of the later ages, can be readily transformed by forging or fusion into new implements, and are liable to be utterly destroyed by oxidization.

These early settlers belong to a race that occupied the continent as far south as the Mediterranean, in the neolithic age. Among the living peoples, as has been shown elsewhere, they are physically identical with the small dark inhabitants of the Basque provinces of France and Spain, who speak a non-Aryan tongue, and represent, to say the least, a section of the people who have left their name to the Iberian Peninsula. We may, therefore,
infer that they were of dark complexion and black hair, and of small stature as compared with the larger, fairhaired races. They had long or oval heads and delicate features. They are represented in the present population by the small dark Welsh, Scotch and Irish, French and Spaniards. In the south they form the Mediterranean race of Sergi. In Italy they may be recognised in the small swarthy section of the Etruscans. In Crete, in the Peloponnese and in Asia Minor, the discoveries in tombs leave no doubt that they were the oldest element in the ethnology of the possessors of the Minoan culture. These are also widely distributed through Northern Africa, being represented in the west by the Berbers, and in the east, as Elliott Smith has shown, by the primitive Egyptians and their descendants among the fellaheen.

All these facts point to the conclusion that this primitive non-Aryan race ranged northwards from Africa and the Mediterranean region generally over Europe to the extreme north of the British Isles, making its appearance everywhere in the neolithic stage of culture, and in Egypt, Greece and Crete, gradually achieving the high civilisation of the Bronze Age. These primitive tribes were, so far as I can read the evidence, in undisturbed possession of Britain throughout the neolithic age ${ }^{1}$. On the continent, however, they were invaded by the taller, broad-headed and more or less blonde Celtic tribes, who gradually forced their way to the shores of the North Sea and the Atlantic; and after establishing themselves on the adjacent coast crossed the Straits of Dover, armed with bronze weapons, and conquered the British Isles,

[^268]as they had before conquered Gaul and Spain. These Broad-heads belonged to the older section of the Celtic tribes, clearly defined by Rhys as the Goidels or ©-Celts. They contrasted with the invaded tribes in their more powerful build, and their fair complexions, grey eyes and light or brown hair. To them we owe the introduction of the Goidelic tongue, Gaelic, Irish and Manx, and probably also the bronze civilisation, and the religious cult that led to the practice of cremation, and the building of Abury and Stonehenge. They form the second welldefined element in British ethnology. There may have been other and older tribes concerned in this invasion. If there were their names have perished as well as their language.

The population in the Bronze Age in the British Isles differs from the neolithic mainly in the fact that it was more dense; as might be expected from the influx of new tribes from the continent. The advance was mainly along the old lines of migration over the uplands northwards and westwards from the Straits of Dover, and the invaders, like their predecessors, were for the most part confined to the uplands and prevented by forests and morasses from occupying the lower grounds. This is proved by the innumerable barrows and cairns, and settlements on the uplands, and the numerous roads for packhorses, if not for carts, linking the settlements together ${ }^{1}$.

All these are for the most part conspicuous by their absence in the wet lower grounds, although there are many cases of their occurrence on dry banks of sand and gravel, not far from the river banks, to which canoes would give easy access. It may be noted, from the abundance of the remains of the Bronze Age in Anglesey, that at that time the island was as densely populated as at any later period down to the days of coaches and railways.

[^269]In Britain, as on the continent, the use of iron gradually replaced that of bronze, as may be seen, for example, by the iron-socketed celt, of the usual Bronze Age type, found in Merioneth. The civilisation of the Prehistoric Iron Age that came along with it is characterised by the beautiful 'Late Celtic Art,' and by the traces of a gradually increasing intercourse with the Mediterranean peoples, Greek, Etruscan and Roman. In this connection we may note the presence of Greek wine-jars in the graves in the Eastern Counties, the pink Mediterranean coral, used for the decoration of shields and brooches, the Italo-Greek vessels of bronze and silver, and afterwards the use of coins-the earlier being copies of those of Greece, and the later of those of Rome. It was, on the whole, uniform in character, throughout Britain, although it was in closer touch with the continent in the southern and eastern counties as far north as Yorkshire. It is without any trace of the woad-painted barbarians fondly imagined in the older histories to have lived in the remoter parts of our island at the time of the Roman invasion.

The tribes who possessed this civilisation have left their mark in the barrows and the hill-forts in the uplands, but more especially we must note the fact that they took possession also of the low country and founded those oppida that were in existence at the Roman conquest, Bath, Manchester, St Albans, etc. They also formed industrial communities in the Lake Villages of Somerset, at Glastonbury and Meare. They also extended the roads from the uplands into the lower grounds, so as to link the oppida and give free communication between the settlements. These roads were used for wheeled vehicles such as those found in the burial-mounds of Yorkshire and the Lake Village of Glastonbury. They followed the older tracks of the Neolithic and Bronze Ages, winding along the ridges, and forming a network throughout the country, and being clearly defined by
their irregular course from the Roman point-to-point roads. The latter frequently follow the main lines of the older system modified here and there by short cuts. It is obvious from all these considerations that at this time Britain was not far below Gaul in culture.

The tribes possessed of this civilisation at the time when Pytheas visited Britain in b.c. 325 belonged to the later or Brythonic section of the Celts, the P-Celts of Rhys, the Galatae of Gaul. They probably brought it along with them. They imposed their tongue more or less upon the conquered people, and were sufficiently numerous to leave their place-names throughout the whole of Britain, as in Gaul and Spain and Northern Italy. In Britain tribe followed tribe from the continent, the last wave of invasion consisting of the mixed Brythons and Germans who formed the Belgic confederacy in the time of Caesar, and had penetrated as far to the west as Somerset before their advance was stopped by the Roman conquest.

I know of no characters by which the Brythonic tribes can be distinguished from the Goidelic tribes, except by their speech.

The settlement of the British Isles in the Prehistoric Iron Age was, like that in the Bronze Age, a mastery over, rather than a general displacement of, the older possessors of the land. Throughout Britain the ethnical elements were mixed, the Iberic aborigines being largely incorporated into the Goidelic Celts and both being so profoundly influenced by the Brythons, that the speech of the latter is proved by the place and river-names to have extended over nearly the whole of Britain. This mixed population was pushed westward and northwards by the English conquest until the Brythonic speech only survived as the Welsh tongue in the west, and the Goidelic became the Gaelic of the Highlands of Scotland and of the Isle of Man.

W. Boyd Dawkins.

## THE MANDIBLE OF MAN FROM THE MORPHOLOGICAL AND ANTHROPOLOGICAL POINTS OF VIEW

Most of those who have worked in craniology must have felt deeply disappointed at the small value of the results which have been obtained at the cost of so great labour. The persistency with which the skull has been turned over, measured in all its diameters, drawn and photographed from every point of view is however eloquent of our belief in the value of the skull and of our faith that, by dint of effort and in process of time, its secrets will be at last laid bare.

Clearly however some other method of investigation must be substituted for those at present in vogue which partake almost entirely of a mensurative or graphic character. The method which appears to me to promise the most certain and valuable results is the comparative anatomical method combined as it always should be with the study of the correlation of structure, form and function.

The simplest side from which to attack the very complicated problem of the skull is in my opinion via the masticatory apparatus and via the mandible in particular. If we can once appreciate the reasons for variations here we shall be some way on to the understanding of the variations of the skull as a whole. It gives me great pleasure at this stage to acknowledge the debt which I feel to Professor Arthur Thomson
of the University of Oxford for the very suggestive paper which he contributed on these lines.

Experience has shewn us that of all the bones of the skeleton the mandible possesses the greatest anthropological value-a value which is naturally dependent on its morphological features. For this reason alone a special interest must always attach to the mandible quite apart from the additional fact that at the present moment the earliest remains of man with which we are acquainted are the Heidelberg mandible and the Piltdown skull, of which last the mandible is undoubtedly the most interesting part.

The earliest appearance of the mandible is like the beginning of all things shrouded in mystery, but we shall probably not be far wrong if we consider it as beginning in the form of a fibrous tissue thickening giving definition, strength and mobility to the posterior margin of the oral aperture. This assumption is strengthened by the arrangement which obtains in the low vertebrate form-the Amphioxus-in which the margin of the oral aperture is thickened by the presence of segmented rods. The primitive teeth which soon made their appearance would act probably first as a grating, later as a mechanism for seizing food and finally in addition as a masticatory apparatus. The early specialisation and differentiation of this part of the body is possibly the explanation of the interesting fact that the mandible is the first bone of the skull to ossify.

Before long with the adoption of more definite functions the mandible took on more or less the shape which characterises it in higher vertebrata, viz. a long bilateral bar of cartilage or bone, each half meeting its fellow in the mid-ventral line at a symphysis and articulating dorsolaterally directly or indirectly through a condyle with the skull. Further, on the anterior or cephalic border of the bone a little median to the condyle a rough area indicating the attachment of the muscle which closes the mouth
begins to appear. A similar impression can be found near or at the symphysis for the muscle which opens the mouth. The reason why the muscle which closes the mouth is not also attached to the symphysis where it would act with greater mechanical advantage is that if it were it would necessarily entail a small mouth; further the teeth which are inserted along the anterior border set a limit to the forward advance of the muscle.

## The muscles attached to the mandible.

(a) The muscles which close the mouth. The muscles which effect the closure of the mouth first make their appearance as a single muscle which arises from the skull and which passes down in front of the tympanic membrane to be inserted into the mandible. It is obviously derived from the mandibular myotome and is supplied by the fifth cranial nerve. This muscle is still single in the dogfish, although traversed by a wavy fibrous intersection. It is from this single muscle that later become differentiated the temporal, masseter, internal pterygoid, and last of all the external pterygoid muscles, the cause of the increasing differentiation being the growing complexity of the movements of the jaw in consequence of the addition of a masticatory function. The close relationship of these muscles is shewn by their union still in many animals, by the difficulty and uncertainty with which their borders are at times identified in man, and by their being supplied not merely by the same nerve but in certain cases by the same branch ${ }^{1}$ of the same nerve.

It would appear further that all the above-mentioned muscles were originally attached to the outer aspect of the mandible, and that only as differentiation has

[^270]progressed have some of them, e.g. the internal pterygoid, obtained an attachment to the inner surface.
(b) Muscles which open the mouth. In man the weight of the jaw alone suffices to open the mouth in the absence of muscular action. In lower forms, in, for instance, the dogfish, the mouth is opened by a muscle which passes directly backward from the neighbourhood of the symphysis to the hyoid bone-the genio-hyoid muscle. In the dogfish this muscle seems to be the only one which can effectively act in this way. The muscle is clearly derivable from the ventral longitudinal muscular fibres of the neck and trunk and is in series with the infra-hyoid muscles of higher types, a view which is confirmed by its decussation with these muscles in the frog and by its innervation from the first cervical nerve.

This muscle in the dogfish is overlaid by a muscular complex consisting of transversely coursing fibres derived from the mandibular and hyoid myotomes, which fibres form the muscular floor of the mouth. In higher forms this complex becomes differentiated into a ventral portion, the mylo-hyoid, supplied by the fifth cranial nerve, and a dorsal portion supplied by the seventh cranial nerve and known in the frog as the depressor mandibulae. In still higher forms a delamination of the superficial fibres of the mylo-hyoid occurs, which delaminated portion joins with the depressor mandibulae-which meanwhile loses its direct attachment to the mandible-to form a two-bellied muscle-the digastric.

With the formation of the mylo-hyoid, depressor mandibulae and later of the digastric muscles the duty of opening the mouth ceases to fall entirely or even chiefly upon the genio-hyoid muscle.
(c) Muscles of the lips. In man and to a less extent in lower animals a number of muscular bundles derived from the portion of the panniculus which reaches on to the face gain a slight attachment to the outer surface of the mandible. One bundle on either side better
marked than the rest sinks deeply and comes to lie, to a large extent, under the muscles of group (a), being attached along the alveolar border of the jaw as far median as the first molar tooth-the buccinator muscle.
(d) Muscles of the tongue. If we except the geniohyoid muscle which through its attachment to the hyoid bone might be regarded as part of the lingual musculature, the only muscle of the tongue attached to the mandible is the genio-hyo-glossus muscle. This muscle, which is not present in the dogfish, is well represented in the frog, the lizard and in the mammalia. Its position and nerve of supply ${ }^{1}$ clearly declare its origin from the same muscular sheet from which the genio-hyoid and hyo-glossus muscles have been derived. It is attached to the symphysis on its dorsal surface, just anterior to the attachment of the genio-hyoid.

## The Mandible.

If we now turn to the mandible itself we find the simplest form it takes is that of a pair of segmented rods surrounding the oral aperture and bearing cirri (Amphioxus).

In the dogfish the mandible is represented by a pair of cartilaginous bars meeting in the mid-ventral line in a symphysis and articulating with the superior maxilla and only indirectly gaining an attachment to the cranium through the hyomandibular cartilage. [The consideration of the three varieties of attachment to the cranium, viz. the hyostylic, autostylic and amphistylic, is not germane to my argument and I therefore don't propose to enter into it.] In the dogfish the mandible is cut away on its median side along its posterior border ostensibly to permit of the hyoid being pulled forward to the symphysis. The shape of the mandible is thus to some extent

[^271]controlled by the shape of the hyoid, and we have here an early piece of evidence of the way in which these bones have to adapt themselves in their shape to each other.

In Amphibia and Reptilia the jaw consists of a number of bony plates lying over a cartilaginous bar which represents the mandible of the dogfish : the mandible articulates through a condyle with the quadrate bone and through it with the cranium. The point to which the muscle, which has already been differentiated from the mandibular myotome as the temporal muscle, is attached begins to be marked by a slight rough elevation-the beginning of the coronoid process of higher types. Another process makes its appearance at the posterior end of the jaw behind the articular condyle-the post-angular process for the attachment of the depressor mandibulae muscle. This process disappears as the depressor mandibulae moves towards the symphysis. There is still no sign of an ascending ramus, the mandible therefore forming a simple lever moving round an axis of rotation which is situated just below the condyle, a lever which is diagrammatically represented in the accompanying figure:


Fig. r. Lower Jaw of an Amphibian.
The movements, and therefore the shape, of the mandible in these low forms are so simple and yet fundamental that a consideration of certain questions arising out of them is necessary if we are to understand the more complicated movements and shape of higher forms.

The movement of the mandible in Amphibia and Reptilia is practically a pure up and down movement
around a transverse axis. The teeth with rare exceptions, such as the poison fangs in the upper jaw of certain snakes, are all of one form and pattern since they are merely used for the seizure and retention of the animal's food. There is no complicated masticatory process, no special crushing or grinding movement, and therefore no ascending ramus to the mandible for the attachment of the crushing or grinding muscles.

A study of the diagram will shew that ceteris paribus the longer the coronoid process and the further it is from the joint the greater the mechanical advantage with which the temporal muscle will act, but a limit is placed to excess in either direction by the peculiar flatness of the skull in these animals making a long coronoid process impossible and by the row of teeth which, being in line with the process, keep it relatively far back. It is interesting to note that there is no such barrier along the posterior border and so the depressor mandibulae in the form of the digastric muscle can finally gain an attachment to the symphysis itself. The reason why the muscle which is chiefly responsible for opening the mouth is attached in higher animals to the symphysis, whereas in lower forms it is attached to the post-angular process, seems to be simply in order that it may act with greater mechanical advantage. Transitional stages in its advance to the symphysis can be observed in the dog, sheep and chimpanzee.

Other matters which must affect the shape of the jaw are the size of the mouth, the capacity of the gape and the strength of the bite. In these connections a study of the mandible of the crocodile has considerable interest. Here the coronoid process, or rather the rough elevation which represents it, is some distance behind the last tooth. In this animal the teeth have passed forward with the snout. If the temporal muscle had followed them it would have necessarily led to a diminution in the width of the mouth, for there is an obvious correlation
between the angle of the mouth and the anterior border of the temporal muscle. A narrow mouth would in turn have precluded the animal from opening its mouth to anything like the extent of which it is capable. Further, the more distant the insertion of the temporal muscle from its origin, the longer the muscle and, the mass remaining the same, the smaller the cross-section and the less powerful the muscle. We thus see that a number of important considerations, among which are width of mouth and strength of bite, enter into the moulding of so relatively simple a jaw as that of a crocodile.

The jaw of the Carnivora is not very different from that of the Reptiles so far as outline is concerned except


Fig. 2. Jaw of Dog when mouth almost closed.


Fig. 3. Jaw of Dog when mouth widely open.
that the coronoid process is very marked and strong. The movements of the jaw are still mainly up and down, there is very little side to side movement and in consequence there is no distinct ascending ramus in the strict sense of the term, since the masseter and internal pterygoid muscles are not so separate or well-developed as they become in the Rodents and Herbivora. It seems to be quite clear that the appearance of an ascending ramus is to be associated with well-developed crushing and grinding muscles which require it for their attachment.

The purpose of the coronoid process in the Carnivora
seems to be to serve as what is known in mechanics as a bell-crank ${ }^{1}$, the principle on which the old-fashioned bedroom pull-bell was formed. A diagram may make my meaning clearer. Figure 2 shews the mandible and temporal muscle when the mouth is closed, Figure 3 when the mouth is widely open.

In the former position the temporal muscle would do little more than lift the jaw, whereas in the latter it would be placed in a position of great mechanical advantage for closing the mouth. The direction of the coronoid process seems to be in a line with the pull of the temporal muscle.

In contrast with the jaw of the Carnivora, the jaw of the Herbivora has a very distinct ascending ramus in keeping with its powerful masseter and internal pterygoid muscles. In certain of the Herbivora the ramus not only grows up but also downwards to give a larger area for the insertion of these muscles. The ramus bears the coronoid process and condyle upwards and the jaw loses its appearance of a simple lever. The coronoid process is relatively small in association with the feebler temporal muscle.

The nearer the molar teeth are to the attachment of the masseter and internal pterygoid muscles which pull almost vertically upwards the better able are these teeth to crush; on the other hand the front teeth are still required for seizing the animal's food, it is the necessity of complying with both conditions which produces the wide separation of the front and back teeth.

In the light obtained from a comparative study of the mandible we may now consider briefly certain features of the bone in man.

In the first place it will be well to decide where the axis of rotation is exactly situated. This axis is usually stated to be in the region of the inferior dental foramen. I believe that the axis can be more precisely placed at a higher level near or at the attachment of the

[^272]strong external lateral ligament. The reason for this belief is that if we measure the range of movement at the condyle and at the symphysis respectively and measure the length of the lever of which these parts are the two extremities, it is a simple mathematical calculation to determine the situation of the axis of rotation. By the use of this method the position of the axis can be shewn to be near or at the attachment of the external lateral ligament. This view is confirmed by the fact that the masseter and internal pterygoid muscles pass down just in front of the axis as thus determined, whereas if the site of the inferior dental foramen gave the position of the axis, the axis would pass right through the centre of the masseter, in which case the anterior fibres would close the mouth, the posterior fibres would open the mouth, and the intermediate fibres would have no rotatory action at all. It explains the further fact that there is a small portion of the ascending ramus a little below the condyle where no fibres of the masseter gain an attachment, for it is obviously of no advantage to pull on or behind the axis of rotation.

The condyles of the mandible in man have their long axes directed backwards and inwards, and if we look at the two condyles we find their long axes are in the circumference of a circle and it is along the circumference of this circle that the condyles move forward and backward in grinding, the jaw moving like the steering wheel of a motor car. This movement is almost entirely brought about by the external pterygoid muscle, a muscle which only begins to be clearly differentiated in the Rodents.

The length, position and direction of the coronoid process depend upon the factors already mentioned, viz. respectively, the length of the fibres of the temporal muscle; leverage, size of the mouth and the distance back to which the teeth reach; direction of the main pull of the temporal muscle.

The size of the ascending ramus depends upon the size of the masseter and internal pterygoid muscles.

As to the symphysis, the characteristic distinguishing feature of the human mandible is the presence of a chin. This is undoubtedly to be attributed to the fact that because of the use to which we put our hands in obtaining our food and in attack, a snout has ceased to confer any advantage. The presence of a snout implies that the front teeth will be put to rough usage, to mitigate the effects of this the front teeth are implanted obliquely so that undue pressure shall not fall directly on their roots; the oblique implantation of the teeth necessitates a sloping symphysis.

In man, in whom the teeth are not subjected to excessive strain, the teeth can afford to be implanted vertically, a condition which makes a chin a possibility. The heaping up of bone in the region of the symphysis in man appears to be for the purpose of increasing the force of the impact when the teeth are violently brought together, to be comparable in other words to the weighting of a club. That teeth can affect the lower border of the mandible in this way is well seen in certain specimens in which this border has a distinctly sinuous course corresponding to the dental and interdental spaces.

The presence of a more or less pointed snout and an oblique symphysis entail the incisor and canine teeth being set along a narrow arch, whereas in man they are set along a relatively wide arch. The narrowness of the arch again has as its corollary a relatively long and narrow tongue. In many animals it would appear that the tongue has to accommodate itself between the canine teeth of either side.

Because of the obliquity of the symphysis again, if we look at this part of the mandible from the buccal aspect we find, from the alveolar margin backward, a smooth slightly sloping platform on which the tongue moves forwards and backwards, then a large sunken area
marked by nutrient foramina for the attachment of the genio-hyo-glossus, and last of all another somewhat similar platform for the attachment of the genio-hyoid. This surface of the symphysis has in consequence a curious stepped appearance as, e.g., in the gorilla. The upper and lower platforms becoming relatively vertical in man, the separation of the three parts is not so apparent. The foramina mentioned above as marking the site of attachment of the genio-hyo-glossus persist however in many cases.

The flange of the Piltdown mandible is to be associated with the existence of a snout and an oblique symphysis, with obliquely implanted teeth and a relatively narrow alveolar arch in the incisor region, and with a correspondingly narrow tongue.

The primitive position of the teeth was undoubtedly along the anterior or cephalic border of the mandible, but in many animals, notably in man, the molar teeth lie on a shelf which lies median to the actual cephalic border, in other words the molar teeth tend to pass under cover of the ascending ramus. The explanation appears to be that the crushing with the molar teeth is brought about by the masseter and internal pterygoid muscles, and the further back the molar teeth can get the better. They cannot however reach far back save by inclining somewhat inwards, and this they do.

An examination of the mandible as it is usually carried out consists in taking a large number of linear and angular measurements without any attempt to correlate them with other parts of the skull. It has been my attempt in this paper to suggest certain lines along which such correlation may be reasonably made. I have endeavoured to shew how the shape of the chin region may be correlated with the plane of insertion of the teeth and with the contour of the alveolar margin, particularly in its anterior part, how the width of the ramus may be correlated with the size of the crushing muscles and
with the inward displacement of the molar teeth, how the direction and length of the coronoid process may be correlated with the direction of the main pull of the temporal muscle and with the extent and cross-section of the same muscle, how the position of the coronoid process may be correlated with matters of leverage and with the point to which the teeth reach posteriorly. The mandible is of course subjected to the play of many forces of which its shape is the result. Probably each single opinion or statement expressed could be readily disproved by reference to comparative anatomy; it is however the aim of this contribution to emphasise the view that sometimes one force is dominant, sometimes another, and that with so many forces at work generalisations may often be seemingly contradicted by individual instances. I feel strongly that in comparative anatomy lies the key which will eventually unlock for us the ancient problem of the skull, and that it is only by the study of the mandible and the other bones of the skull in the way which I have indicated that we shall win to its final solution.

William Wright.

## ANCIENT EGYPTIAN BELIEFS IN MODERN EGYPT

There exist among modern Egyptians a number of customs and beliefs that so nearly reproduce those of Ancient Egypt that it seems legitimate to regard them rather as direct survivals than as instances of similar customs arising among cognate peoples. If this be granted special interest attaches to these customs, not because the period over which they have persisted is necessarily longer than that bridged by the host of beliefs and practices that constitute the folk-lore of other peoples, but because it is possible to adduce perfectly definite evidence of their direct continuity over a very much longer period of time.

The customs connected with death and burial probably afford the widest scope for the discovery of such survivals. I have, however, avoided this field since the evidence is so tangled and complicated as to make its discussion in a short paper impossible.

The facts I shall record below seem to indicate :-
(i) The persistence of the belief in the $k a$ or 'double.'
(ii) The survival of the Ancient Egyptian belief in the importance of the placenta.
(iii) The persistence of a ceremony in which a sacred boat takes a prominent part.
(iv) The existence of a number of superstitions connected with the Calendar which can be traced back to Ancient Egypt.
(i) The persistence of the Belief in the Ka or 'Double.' The belief in the 'double' as part of man's spiritual organisation is found in both Upper and Lower Egypt. The name applied to the 'double' is qarina (قرينة), the ordinary Arabic word for a partner or companion ${ }^{1}$. The belief, though widely spread in the Nile Valley, is by no means universal, nor does it everywhere present exactly the same form ; indeed, even my limited experience indicates that there are many variations in detail.

The following account mainly derived from a personal friend, an educated native of Luxor, may be taken, I think, as fairly representative of the common form of the belief. Everyone has a spiritual counterpart (this has nothing to do with a man's immortal soul) spoken of as qarina or sometimes shaitan, which accompanies him through life. It is generally impossible to discover what becomes of the qarina at death, the majority believe that it perishes with the individual, while some few say that it enters the grave with the body, in any case its ultimate fate seems uncertain. Often the 'double' is credited with playing the part of a bad angel, or of a man's good and bad angels alternately. I believe that it is specially in these circumstances that it is spoken of as a shaitan (not qarina), but probably this has arisen from confusion with the common Mohammedan belief that every child of Adam goes through life with a good and a bad angel on his right and left side respectively ${ }^{2}$.

A variant of the belief in the 'double' said to be common among the fellahin of both Lower and Upper

[^273]Egypt is that everyone has an invisible companion of the opposite sex who is regarded and spoken of as a 'sister' or 'brother.' This companion lives in quiet shady places, in dark rooms, and especially under the threshold. Some believe that the companion follows every action of its human 'brother' or 'sister,' and this belief is the reason for the common exclamation Ism Allah 'alek wala ukhtak, 'the name of Allah upon you and your sister,' and for the offering of a few drops of water made when a small boy falls while walking or playing. The death of one or more children in a family is often attributed to the influence of their mother's 'brother' (companion) and the mother and surviving children may wear iron anklets to avert this danger. A variant of this belief asserts that if the child dies while still an infant in arms it is the qarina of the mother that is responsible, but that the qarina of the father causes the death of bigger children. According to several accounts it is the qarina that are seen in divination by the ink pool.

The belief in the 'double' also exists in Syria, and I have heard of it from more than one Syrian in the Sudan, and received the following details from a Mohammedan Syrian upon whom I can rely. Every human being has a garina which follows him (or her) through life and appears in dreams as a 'double' or (I think more commonly) in the form of an animal. One of my informant's countrymen has a qarina that appears to him in his sleep in the form of a snake, another sees a cow with unusually long horns. I could not ascertain what was supposed to happen to the qarina at death, there seemed to be a vague belief that it might in some way pass to one of the children of the deceased.

Besides these more or less clearly defined and consistent beliefs which appear to be derived from the ancient or modern Egyptian 'double,' Syrian accounts of the garina are mixed up with a number of experiences which seem to reproduce the sensations of nightmare, and which it


FIG. I. SHRINE OF SAYED HASSEN EL MERGHANI, BARA, KORDOFAN


FIG. 2. BOAT SUSPENDED IN TREE, LUXOR
may be assumed are only secondarily related to the qarina on account of the animal forms taken by the latter.
(ii) The Belief in the Importance of the Placenta. In a recent number of Man (igir, 97) evidence was adduced to show that an object, occurring in Egyptian carvings and paintings of every period from pre-dynastic to Ptolemaic times, represented the royal placenta, and it was suggested that possibly the second 'burial' places of certain of the Egyptian Pharaohs were in the nature of shrines built over their placentae.

Last winter at Bara in Kordofan I visited a shrine raised not over the body of a holy man, but over his placenta, i.e. at the spot at which tradition declares his afterbirth to have been buried. Bara, situated about 40 miles north of El Obeid, is the capital of the district of Kordofan called by its name; water is found near the surface and it is highly irrigated. Its population consists for the most part of immigrant Danagla and natives of the Nile Valley north of Dongola ${ }^{1}$. I wish to lay some stress on the nature of the population of Bara, for in religious as in social matters generally its inhabitants follow the beliefs and customs of natives of the Nile Valley north of the fourth cataract, and not those of the negroes to the south, or even of the sedentary Arabs, among whom the town has sprung up.

The shrine in question stands as a memorial in honour of the holy man Sayed Hassen el Merghani, the son of Mohammed Osman el Merghani wad Abdullahi. The latter lived at Mecca where he was a well-known teacher of the Koran. Among his pupils was one Sheykh Ismail of El Obeid whom Mohammed Osman visited in his own country. While in Kordofan, Mohammed Osman stayed at Bara and there married Hogra bint Mahgoub, who bore

[^274]him a son Sayed Hassen. Mohammed Osman did not remain long in Kordofan and returned to Mecca even before the birth of his son, but when the latter was about fourteen his father sent for him and so trained him that in time he became even holier than himself and attracted many followers, the majority of whom were from Kassala and the country round it. Because of this Sayed Hassen made his home at Kassala and there he died nearly forty years ago. Feeling ran high, so it is stated, as to where the body should be buried, and though, as might be expected, Kassala kept her saint's body, Bara too determined to have a shrine, and one was built over the spot where, according to tradition, Sayed Hassen's placenta had been buried, the saint, according to one account, having appeared in a dream and indicated the site. The original shrine was destroyed during the Mahdia, the present building is represented in the photograph printed with this note.

There is no doubt as to the holiness of the shrine ; indeed, I was only allowed to peep through its half-open door for a few seconds, yet long enough to see that there was nothing resembling a tomb in the interior which contained a number of flags of the usual type. Oaths are sworn upon this shrine and it is customary to read the Koran publicly on the saint's birthday.
(iii) Boat Ceremonies. These are widely distributed in Europe outside the Mohammedan area and are known to date back to the comparatively early period of the sixth century b.c. ${ }^{1}$ This is not the place to seek to decide whether all or any of the European ceremonies are related to the earlier Egyptian festivals, though, as I shall suggest, this probably is the origin of the boat ceremonies associated with Islam in the East even beyond Egypt.

[^275]The photograph reproduced in Fig. 2 was taken just outside Luxor in January 1909 ; the boat is an ordinary river boat, which it was said had once been used for traffic, but was now kept suspended in the tree except at certain times when it was placed on a cart, filled with children, and dragged round the fields. I am indebted to MrG . Brunton for the following more precise information, obtained during the past winter. There are three boat processions in Luxor every year, viz. on the fourteenth and last day of the festival commemorating the birthday of Abu'l Heggag the patron saint of Luxor, on the last day of the mulid el Nebi (the birthday of the Prophet) and at the beginning of Ramadan. It is said that the processional use of the boat at the mulid el Nebi and Ramadan celebrations is in imitation of the ceremonial observed at the festival of Abu'l Heggag. The boat is decorated with greenery and followed by representatives of the different trades, carpenters, boatmen, butchers, etc., all carrying their characteristic tools. There was formerly much revelry and debauchery in connection with the festival, but this was put down by the Government and the ceremony is now mainly religious with a certain amount of merry-making in the cafés. The mulid begins with evening prayers in the mosque and on the second night a buffalo or sheep is killed of which as many as possible partake. Nominally like all important mulid the festival lasts a fortnight, in this instance from the first to the fifteenth of Shaaban, but only the last few days are important from the popular standpoint, the festivity reaching its climax on the last night, which is the night after full moon ${ }^{1}$. The orthodox account of El Sayid Yusuf Abu'l Heggag states that he was born at Baghdad A.f. 557 , went to the Hejaz in 6rg and there attained so much honour that he became an Ulema, settling at Luxor

[^276]in 62 I and dying there in 643. According to the popular version Abu'l Heggag is said to have lived nearly 700 years ago. The 'king of Egypt, the conqueror Nâsir-el-din,' having heard of his sanctity, sent for him and the procession of the boat commemorates the stone vessel in which he and three other sheykhs from Upper Egypt journeyed from Keneh to Cairo in less than two days, or according to one account 'in the twinkling of an eye ${ }^{1}$.'

The models of boats commonly suspended in mosques (e.g. in the two chief mosques of Luxor in 1909) and in the tombs of sheykhs appear to be ex votos in every case, and though these have nothing to do with Abu'l Heggag, and broadly speaking are not connected with any particular saint, the form that the votive offering assumes is none the less significant. Considering the importance of the boat in ancient Egyptian ceremonial, and the number of representations of sacred boats on sledges that have come down to $u s^{2}$, there seems little reason to doubt that we are dealing with survivals from the times of these wall paintings.

Assuming that the Egyptian customs described have in fact sprung from ancient Egyptian boat festivals, the question arises how far can boat ceremonies among Mohammedans in the far East be traced to this source? My knowledge of these is slight, but the 'Moormen' of Ceylon certainly have one ceremony in which figures a boat on wheels. The following account is taken from Mrs Seligmann's journal under the date May i6th, igo8 corresponding to Rabia el-Thani I5th, I 326 . 'There

[^277]was a Mohammedan festival on this, a splendid moonlight evening. The mosque stands a little way up the hill behind Kandy and has a flight of white steps leading up to it. C. our guide, the son of the Moorman headman, took us to a quiet street and brought out chairs for us. There we waited and waited till at last after midnight the procession left the mosque. First came the torch-bearers, then a cart representing a house with a man dressed as a girl dancing in the verandah, then a boat containing a number of men and boys who loaded and fired off guns and pistols as fast as they could. Then came a huge pagoda-like erection all lit up, the top revolving one way and the base in the opposite direction. This was carried by about 40 men.'

This ceremony was held on a date on which there was no orthodox Mohammedan festival. In other words, like the feast of Abu'l Heggag, it was a local affair and was held in honour of a local saint. Taking this into consideration and the absence of any similar ceremony among the Sinhalese, as well as the considerable trade which existed throughout mediaeval times between the Red Sea ports and Ceylon, it seems legitimate to infer that the boat carried in procession is a survival from an old Egyptian ceremony which, after being absorbed into Mohammedanism, was introduced by 'Arab' traders into Ceylon ${ }^{1}$.
(iv) The Calendar. The Egyptians counted time by months which were divided into three periods of ten days each, yet, notwithstanding the confusion caused by the introduction of a seven day week into the calendar, certain of the beliefs proper to Ancient Egypt still persist among the Fellahin and are even chronicled in the modern calendars sold in Cairo.

[^278]Valuable information about the old Egyptian calendar is given by Chabas in his publication concerning the Sallier Papyrus ${ }^{1}$ which dates from the time of Rameses II or possibly of his successor. Chabas also gives a translation of a papyrus preserved at Leyden (1. 346) entitled The Book of the Five Extra Days of the Year. This not only states that the epagomenal days are unlucky, they were in fact dies nefasti, but gives the magical formulae and processes by which their maleficent quality may be averted; yet, in spite of these instructions, the papyrus ends with the warning that nothing should be undertaken on those days.
'Do not do any work on these unlucky things (?) [namely] wheat, spelt, flax, clothing. Do not devise anything at all. The man who does what is written here, shall not fare ill2.'

Turning now to the beliefs of modern Egypt I am indebted to Mr R. Engelbach for the information that the epagomenal days are known as Guma'a Kelil Khusumat and that any child begotten during these days will infallibly be misshapen or abnormally tall or short. This also applies to animals so that cattle and mares are not covered during these days; moreover, some say (though others deny) that neither sowing nor planting should be undertaken ${ }^{3}$.

The following is an even more striking example of the persistence of old beliefs attached to certain days. The Papyrus Sallier marks Athyr igth as one of the days 'to beware' and says: 'Storms are engendered in the skies; do not travel on the river neither up nor down; do not...at all on this day.' In the modern calendar for

[^279]$1878^{1}$ the instruction for Zu'l-Heggeh 4th corresponding to the Coptic Hatour 19th, i.e. Athyr 19th, is 'Avoid travelling on the Mediterranean.'

Another interesting example is afforded by a day near the end of Choiack. The Papyrus Sallier marks Choiack 26th as extremely unlucky, and of this day it is said 'Do not eat fish. Those residing in the midst of Tattou turn themselves into the fish An.' In the modern calendar (op. cit. p. 25) the note for Moharrem I Ith corresponding to the Coptic Kyhak 26th is 'The eating of pigeons is liked, that of fish disliked.'

These examples, striking as they are, are in accord with the fact that the names of the months in general use by the Copts at the present time scarcely differ from those preserved in the Egyptian papyri.

C. G. Seligmann.

[^280]
## THE PROBLEM OF THE GALLEY HILL SKELETON

Of late years, the impressive discoveries of prehistoric human skeletons in Germany (Mauer), France (La Chapelle-aux-Saints, La Quina, La Ferrassie, and Le Moustier), and England (Piltdown, Sussex), have diverted attention from the remarkable skeleton found at Galley Hill ${ }^{1}$ in Kent.

But, in fact, the interest of the latter is really intensified by the more recent finds.

In view of the possibility that this contribution may be honoured by the attention of readers who have not made a special study of fossil remains of human beings, I venture to review briefly the situation created by the inclusion of the Galley Hill skeleton among the most ancient representatives of our kind.

That the actual fossil remains of Man would (as the net result of examination) support a belief in evolution, is an expectation that has long been cherished. Moreover, it has been regarded as probable, that the evolution in question would prove to have been a gradual process, that it would be shewn to have been continuous, regular, and undisturbed by sudden or abrupt advances.

For a time, these expectations seemed to be justified, even though the evidence might not be absolutely conclusive. An evolution of the kind anticipated seemed to be clearly indicated.

Thus the Cave-men of the Mousterian period were, on the whole, more lowly than those of the later StoneAge.

But if, looking beyond these Cave-men, we find in a much earlier period remains of a human being differing in no essentials from ourselves, we feel that the anticipated sequence is rudely interrupted, and it becomes evident that our ideas as to the mode of evolution, if not as to its very occurrence, need a thorough revision.

Such is the situation actually created by the Galley Hill skeleton, if its claims to high antiquity be made good. For it is a skeleton which, though found in surroundings indicative of vast antiquity, presents no essential differences from those of many modern men. That such a type should be more ancient than the apparently lowly man of the Neanderthal, is so paradoxical that the closest scrutiny must be directed to the crucial evidence in the case.

In this instance, the whole case rests on the answer to the question, How did the skeleton of the Galley Hill man come into the position in which it was found ? Was it interred, or, on the other hand, was it deposited contemporaneously with the material of the alluvial bed in which it lay?

A point of importance is that the Galley Hill 'type' is now definitely enrolled by some authors among the earliest representatives of humanity, and its characters have been accorded so high a value that mention of the Galley Hill Race is of frequent occurrence in recent literature.

In the following paragraphs, I hope to make a small contribution to this subject, and it will be of a nature antagonistic to the view of the 'higher' antiquity of the Galley Hill man. In so doing, I may remark that, in a former publication, I gave assent, hesitating though it might be, to the view here controverted. It is unnecessary to relate the considerations which weighed with me in forming that conclusion, and the fact is mentioned chiefly to indicate that in the preparation of the present paper, I have had good reason to maintain an attitude free from bias.

Such problems can rarely, perhaps never, be solved in demonstrative fashion. Our approximations strike a balance between the scales of favourable and adverse evidence. And in these circumstances, details of an apparently trivial kind may sometimes prove valuable.

The history of the discovery of the Galley Hill skeleton is accessible to all ${ }^{2}$, and I shall not attempt to summarize the discussions already on record. It will suffice to say that the bones were found in a gravel deposit corresponding to what is termed the ' 100 -foot terrace' of the Thames Valley. The gravel rests on the chalk, and on this it has accumulated locally to a thickness of some ten feet. The bones were eight feet from the surface ; they lay in close contact, and many parts of the skeleton were collected. In fact, it is not impossible that the whole skeleton might have been recovered, had the necessary pains been taken at the time.

The gravel at that place yielded no other fossil bones*, so that no direct evidence of the contemporary animals is forthcoming. But the altitude of the deposit above the modern Thames suggests no small antiquity for the surroundings of the bones. Moreover, the researches of Mr Hinton ${ }^{4}$, on fossil bones of animals found in a neighbouring gravel-pit, confirm that view. For the evidence leads Mr Hinton to conclude that a very early

[^281]stage of the Pleistocene period is here represented; a stage in which the British fauna still included animals distinctive of the (preceding) Pliocene period. If then, as the supporters of the contemporaneity of the human skeleton with those extinct animals ask us to believe, the association is proved, we have to assign a vast antiquity to both alike.

The most obvious alternative is that the human bones were interred at an epoch much less remote from the present than that of the formation of the gravel bed. This possibility has been present to the minds of all who have investigated the case.

Mr Newton, in his announcement of the discovery and in his description of the bones, states, however, that ' there is no evidence whatever of this being an interment.'

In re-opening this part of the discussion, I propose to make the following assumptions:
(a) That the evidence as to the undisturbed condition of the gravel above the skeleton is inadmissible.

This assumption is of great importance, for it strikes at the first, and almost the sole, argument employed by Mr Newton. I am therefore bound to add that I am guided by two considerations. First, that the witnesses to this effect are not shewn to have had the experience necessary for warranting the acceptance of their evidence in so momentous a matter. Secondly, that it is by no means proved that the nature of the deposit was such that traces of such disturbance as is involved in an interment would be preserved for very long. It is fair to claim that better evidence than that now on record should be provided in support of this point.
(b) That the evidence so far adduced from the chemical analysis of the bones is likewise inadmissible, in view of the extraordinary and admitted variability of local conditions, and the influence of these on the materials (in this case, the bones) actually examined.
(c) That the skeleton shews no essential differences from those of many modern individuals.

Of these assumptions, the first two cover practically the whole case for the greater antiquity of the Galley Hill skeleton. The third assumption is important, but is not generally contested.

The object of the present communication is to discuss a point that has received little more than a mere mention hitherto. It consists in the peculiar distortion of the Galley Hill skull.

The distortion has been ascribed to ' warping,' said to have occurred while the skull was exposed to the air immediately after its discovery.

I have to suggest alternatively that the distortion may be characteristic of skulls from undoubted interments. Were this shewn to be even probable, its bearing on the antiquity of the Galley Hill skeleton is self-evident.

In support of this view, I think that three principal propositions ought to be established:
(i) The distortion of the Galley Hill skull must be shewn to be closely similar to, if not identical with, distortion produced posthumously in a skull (or skulls) known to have been interred.
(2) The distortion must be shewn to be a frequent variant of the deformations to which interred skulls (or rather, heads) are subject.
(3) The distortion must be shewn to be very uncommon in skulls recovered from alluvial deposits, in which they had been embedded by a natural process.
(1) A human skull recently sent to the Anatomy School is distorted in a manner so nearly resembling that of the Galley Hill skull, that the resemblance amounts almost to identity.

Three drawings of this skull have been made, and are reproduced in the accompanying illustrations, together with the corresponding views of the Galley Hill skull
(Figs. I to 6). Each cranium has been elongated, laterally compressed or narrowed, twisted spirally on its longer axis, while the left side has suffered more damage than the right. That the measurements of length are 211 mm . and 205 mm ., the transverse diameter of the less damaged half being 65 mm . in each case, may be regarded as only coincidences.

The skull-wall of the Cambridge specimen is the less thick, but it presents localized areas of thickening in the same positions as those of the Galley Hill skull. In the Cambridge specimen these 'osteophytes' are less marked, and as the skull is probably of the female sex, they might be identified with the so-called 'puerperal osteophytes,' were it not now established that they may be produced in a skull of either sex, so that this factor need not be taken into account.

The Cambridge specimen was removed from one of a series of graves lately discovered in the garden of Croft Lodge, Newnham (near Cambridge). The presence of Saxon fibulae in an adjacent grave provides good evidence of the date of interment. The graves were not deep, but within a few yards of the locality Saxon remains (but not human bones) were found at a depth of eight feet below the present surface. The ground consists of an alluvial gravel, so that in this respect the circumstances are sufficiently comparable to those at Galley Hill.
(The University owes the specimens to the kindness of Mrs Watson, the owner of Croft Lodge.)
(2) Modes of distortion in undoubted cases of interment.

Posthumous deformation of the human skull received much attention about fifty years ago (cf. Crania Britannica, p. $3^{88}, 1865$ ), but interest in it has lapsed of late years. It has long been known to be most frequent in interments of certain or particular periods, that of the Saxon predominance being especially noteworthy on this
account. For the production of the particular kind of distortion here considered, the head must have been turned well over to one side. This may happen even when the corpse has been laid on its back in the grave. An examination of the extensive collection of ancient crania (from this country) resulted in the discovery of six specimens comparable to the Galley Hill skull and the Saxon skull, in point of distortion. In five out of the six, the left side has suffered more damage than the right. This is the case in the two skulls first described (Figs. I-6).

All six specimens are from interments, three are certainly Saxon, and of these one is the specimen employed by Thurnam to illustrate the results of posthumous deformation, and figured in Crania Britannica (lignograph No. 2).

No other variety of posthumous distortion occurs in the Cambridge Collection with sufficient frequency to constitute a 'class' or 'type.' Yet this result may be illusory, since it is possible that crania distorted after the fashion of that from Galley Hill may be more easily preserved, and may on this account find their way more readily into museums.

However this may be, the observations here recorded will suffice to shew that the distortion of the Galley Hill skull is faithfully reproduced in interments, and that it is at least one of the more frequent of such posthumous deformations.
(3) The distortion must be shewn to be rare or perhaps unrecorded in crania embedded naturally in an alluvial deposit.

Clearly this is the most difficult part of the case here presented. First of all, we must consider the following remarkable statement made by Barnard Davis, 'the appearance (i.e. posthumous deformation, W. L. H. D.) had long been known to palaeontologists.'

The preceding arguments would lose most of their force should it be shewn that the foregoing sentence refers correctly to human crania, and to instances in which interment is excluded as the determining factor.

I have searched the more accessible works on Palaeontology in vain for evidence that the remark is thus applicable. I find no discussion at all of the case of human crania. Professor Abel alone (Palaeobiologie, 1912) discusses in detail the various circumstances under which fossil remains have been deposited. But even Professor Abel does not deal with the problems of human remains in Pleistocene gravels. I am therefore of opinion that examples drawn from sites like that of Pikermi, where numerous carcasses of large mammals were heaped on each other, and where crushed or splintered bones are found, do not provide relevant evidence, even though the bones are distorted as well as fractured.

We have to imagine the corpse of the Galley Hill man swept on to a bed of gravel. The High Terrace of the Thames was in process of formation, and that river was carrying at the time 'only the finest gravel, together with a large quantity of sand and brickearth' (Hinton and Kennard, Essex Naturalist, Vol. xv. 1907, p. 68). The current was not strong enough to separate the bones from each other as they fell apart. The accumulation of the deposit was therefore proceeding slowly.

Does such a matrix provide the conditions for active pressure-effects, comparable to those produced in an interment? I do not think that an affirmative answer can be given with confidence.

Considering that the Galley Hill skull, if contemporary with the formation of the High Terrace, is a 'River-bed' skull of that period, I have enquired into the occurrence of distortion or deformation among other skulls thus designated.

But I do not find that distortion is recorded among these, as a feature remarkable either by reason of its frequency or its degree.

Even the 'Tilbury' skull is not thus characterised, notwithstanding the great depth at which it lay ( 34 feet). There is no mention of distortion in a critical account (by the late Dr Beddoe) of two skulls found at great depths ( 40 feet* and 46 feet respectively) in alluvial deposits near Bristol. A human cranium found near Bedford in the autumn of igiz was covered by some twelve feet of gravel and mud, and was yet free from distortion. The perfect preservation of even the most delicate shells in deep deposits has frequently been noticed, and the phenomenon is easily explicable. I have found one reference to distortion in a human skull, which may be of the 'River-bed ' type. This is the so-called 'Sudbury' skull. But the distortion is incomparably less than in the Galley Hill skull, the specimen is not clearly of the 'River-bed' type, and it may be of quite recent date.

By way of summary, I may repeat that, in suggesting that the Galley Hill skeleton is to be brought into the category of interments, I have adduced evidence to shew :
(I) That the skull has been distorted posthumously in a manner practically identical with that found in skulls derived from interments.
(2) That in skulls from interments, this particular form of distortion is at least one of the most frequent.
(3) That the arguments drawn from the distorted bones of Tertiary mammals are not relevant, owing to the difference in the local conditions.
(4) That in the 'River-bed' skulls, distortion is neither frequent, nor sufficiently marked to have attracted notice.

I find it difficult to believe that warping could mimic with such accuracy the distortion produced by pressure in a grave $\dagger$.

[^282]On the contrary, I think it more reasonable to conclude that in fact the Galley Hill skull has been distorted through the same agency as those crania it so closely resembles.

Consequently I am unable to agree with Mr Newton, that there is no evidence whatever of interment *.

The suggestion here presented may not possess much weight, but I think it ought to be completely rebutted before a confident claim can be sustained on behalf of the greater antiquity of the Galley Hill skeleton. If it is not thus rebutted, I think that the Galley Hill skeleton should at least be placed to a suspense account, as proposed long ago by Professor Boyd Dawkins.

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exhumed, was so softened that before removal it had to be left exposed in situ for a fortnight during July 1913. The weather was sunny, yet no warping at all has been produced in the skull.

* The 'scoring' of the bones of the Galley Hill skeleton by the rootlets of plants raises a point which may be the means of throwing further light on the problem in hand. At the moment I am only able to mention this line of enquiry.


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## THE GALLEY HILL SKELETON



Fig. 2. Front view of the distorted Saxon skull (from Croft Lodge, Newnham, Cambridge). The skull is orientated (as nearly as possible) on the sub-cerebral plane adopted by Keith; the Bregma (not marked) and the Lambda ( $L$ ) are in the same vertical plane. The Opisthion $(O p)$ is seen to be to the left of the median plane, and the left half of the specimen is much flattened.


Fig. 3. The cast of the Galley Hill skull orientated similarly to the Saxon skull as shewn in Fig. 2. The Opisthion $(O p)$ is seen to be to the left of the median plane, and the left half of the specimen is distinctly flattened.


Fig. 4. View of the Saxon skull (described under Fig. 1) from above. The proportions are similar to those of the Galley Hill skull (cf. Fig. 5), and in both specimens much of the left side of the skull has been lost.


Fig. 5. View (from above) of a cast of the Galley Hill skull for comparison with the Saxon skull as shewn in Fig. 4.

Fig. 6. Side view of a cast of the Galley Hill skull (for comparison with the Saxon skull as shewn in Fig. 1).

## THE CONTACT OF PEOPLES

One consequence of the preoccupation of ethnologists with the idea of the independent origin of custom and belief has been the neglect of the study of the principles underlying the contact of peoples and the interaction of their cultures. In recent years we have had studies, as in the work of Huntington ${ }^{1}$, of the causes of migration, of the factors which have set peoples in motion and thus acted as the starting point of the blending of cultures. We have also had accounts, as in a recent book by Haddon ${ }^{2}$, of the migrations of which we have evidence in history, tradition or culture. I do not know, however, of any work which deals with the conditions which determine the results of these movements.

If we are to adopt as the main working hypothesis of ethnology that the examples of human culture now found about the earth are the complex results of the blending of peoples, and if its primary task be the analysis of this complexity, it becomes a matter of urgent necessity to understand the nature of the process of blending. We have to study how far the compound which emerges from the process is determined by the physical conditions of the country in which the blending takes place; and how far the character of the process is determined by the relative numbers, degree of culture and other conditions of the people who come into contact with one another.

It would be hopeless to attempt here to deal comprehensively with so vast and complex a subject and

[^283]I propose to devote this small token of my admiration and regard for Professor Ridgeway to the formulation of one principle and then to inquire whether this principle can help towards the solution of two of the outstanding ethnological problems of to-day.

The contact of peoples is not a process which is limited to the past but one which is still going on before our eyes. Let us inquire whether this process of the present may suggest a principle which will guide us to a better understanding of the past. During the last two centuries there has been going on, and is still continuing, a movement of our own people to all parts of the world. A rough survey is sufficient to show that the effects of this movement have depended largely on the nature of the culture of those whom it has reached. The more developed and highly organised the culture of a country, the less is the effect upon it of our own people. In such a country as China the effect of European influence has been slow and in amount is still very slight. On social structure and language, the effect is infinitesimally small; on religion it has been little greater, and even on material culture it has been so slight that, if all Europeans were to leave China to-morrow and the country were again to be closed, it would probably be difficult for the future archaeologist to discover even the material traces of their presence except on the sites of some coastal settlements and of a few large towns.

In India again it is doubful whether, except in material culture, our influence has really been much greater. We have had little effect on social structure, on the caste system, on language or on religion, and it is noteworthy that the greatest effect has been in those parts of India where the indigenous culture has remained at a relatively low level. It is only in the south that the English language and the Christian religion have obtained any hold on the people.

If now we compare this influence on China and India
with that which has been exerted on such lower cultures as those of America, Africa and Oceania the difference is very great. The English language and the Christian religion are readily adopted; even social structure does not escape, while the effect on material culture is so great that the difficulty of the archaeologist of the future will not be to discover the nature of the introduced influence; his difficulty will be to find even the traces of the indigenous cultures on which this influence has been exerted.

It may have occurred to you that there is one country which may seem to form an exception to the generalisation I am trying to establish. The influence of European civilisation upon Japan would seem at first sight to form a striking exception to the rule that the higher is the culture of a people, the less is it susceptible to external influence. It must be pointed out, however, how little has been the effect of this external influence upon the more stable elements of Japanese culture, on social structure, on language and on religion, and, further, such effect as there has been is due, not to the influence of immigrants, but to a process of a quite special kind, a process which perhaps will stand out in the future as the striking historical fact of our own times, a process in which a people of high culture have recognised their inferiority in certain of the more material arts of life and have deliberately chosen from the culture of others just those elements which they have believed to be useful. Japan is one of those exceptions which, when we study them more closely, are found to prove the rule.

A brief survey of the effect of modern European culture throughout the world thus suggests the working of a principle that the condition which emerges from the contact of peoples depends upon the distance which separates them in the scale of culture. With the exception I have already considered, there is no reason to suppose that this modern movement differs in any
essential respect from the many which have preceded it. The difference is one of degree rather than of kind. With our improved means of transport we do now in years what once took centuries, but it is unlikely that the principle I have sought to establish for the present is a new feature in the history of mankind. I propose, therefore, to use as a guide to the past the principle that the extent of the effect of a migrating people upon those among whom they settle is proportional to the degree of superiority of the immigrant culture, and from this it will follow that the greater be the superiority of an introduced culture, the smaller need be the number of its introducers. The special theme of this paper is that few immigrants are able to exert a deep and far-reaching influence if their culture be greatly superior to that of the people among whom they settle.

We have first to inquire what is the criterion of the superiority which allows the few to exert an influence out of proportion to their number. It is clear that we have not to do with any absolute standard of higher or lower. The influence of an introduced culture is not determined by any absolute superiority but by its effects on those to whom it is presented. It is the fact that an introduced culture seems to those who adopt it to be higher than their own which determines the extent of its influence. We have, then, to inquire what aspects of culture thus impress on the minds of rude peoples this notion of superiority, and here again I believe that the study of the spread of modern European influence gives us the answer. An examination of our own times makes it clear that in this direction it is material culture which counts, and counts almost alone.

High organisation of social structure, a refined and exalted religion, high aesthetic ideals finding their accomplishment in works of art, a language capable of expressing the finest shades of meaning, all these are important when we have to do with settlements among
those already civilised. To the uncivilised they are of small importance beside the purely material aspects of culture. It is the knife and the match, the steamship, the house and its furniture, but above all and beyond all the firearms of the European, which impress the man of rude culture and lead him to regard their possessors as beings of a higher order than himself. It is the recognition of the superiority of the material objects and arts which precedes and makes possible the acceptance of other elements of an introduced culture ${ }^{1}$.

An example may be given to illustrate the effect produced on a rude people by superiority of material culture. About the year i804 twenty-seven convicts escaped from New South Wales and found their way to the Fijian Islands ${ }^{2}$. The settlement of these few men had a farreaching influence on Fiji. The supremacy of the people of Mbau and Rewa and the manifold consequences of this supremacy were due to the help which they gave to the chiefs of those districts. This influence was due predominantly, if not entirely, to the firearms of the visitors. Owing to the effect of their weapons they were regarded as more than human, their every wish was gratified and, if they had been more worthy representatives of their race, they might have had an even greater influence. The nature of the reception of these visitors enables us to understand how great might be the influence of a body of men, no larger, but more fit to follow up the impression made by their material arts.

Further, the example shows how great an effect on culture may be produced by a body of immigrants so small as to have no appreciable effect on the physical

[^284]characters of the people. Though one of the twentyseven settlers in Fiji had no less than forty-eight children, the physical anthropologist who visits Fiji to-day would find nothing which would lead him to suspect the former presence of a body of immigrants who not long ago exerted a profound influence on the fortunes of the country.

I have now put forward as a working principle that superiority of material culture will enable a few immigrants to exert a great influence on those among whom they settle. It remains to inquire whether this principle is capable of helping towards the solution of any of the problems by which the ethnologist of to-day is confronted. For this purpose I choose two: (i) the nature of Australian culture, whether it is simple or complex, and (ii) the origin of megalithic monuments, whether they belong to a single culture or have come into existence independently in different parts of the world.

## The Complexity of Australian Culture.

In the many works in which the Australian aborigine is held to have been the originator of human institutions, there is necessarily implied the idea that his culture is simple. If it could be shown that Australian culture is complex and contains many elements derived from without, perhaps even in ethnologically recent times, there must arise the most serious doubts whether we are justified in looking to it for material whereon to found theories of social origins. Certainly, such a procedure is wholly unjustifiable without a preliminary analysis of the complexity into its elements, and there can be little doubt that the result of this analysis would be to cut away the ground underlying many of the speculations concerning human institutions which have arisen out of the study of Australian culture.

There are few parts of the world where there seems at first sight to be so much to support the idea of unity of culture. Rarely do we find so high a degree of uniformity of physical type over a large area; rarely such similarity of custom and of institution and apparently of the underlying ideas and beliefs. The differences, and highly significant differences, are there ready to be seen by those who look for them, but it is not unnatural that under the influence of the dominant idea of the unity of this culture, they have been overlooked and that there are ethnologists prepared to acknowledge the complexity of human culture in general, who still hold firmly to the unity of that of the Australian aborigine.

Elsewhere I have pointed to features of Australian culture which suggest its complex character ${ }^{1}$. The combination of two forms of social organisation which elsewhere are found apart and the nature of Australian mythology seem to indicate complexity and I propose now to support these with yet another indication. Few customs of mankind take so firm a hold of his imagination as his modes of disposing of the bodies of the dead. If, therefore, Australian culture has been isolated, and is the outcome of spontaneous growth through immense stretches of time, we should expect to find much uniformity in the disposal of the dead. It is difficult to see in the environment of the Australian anything which could have led him, unaided and untaught, to evolve a variety of funeral rites.

What, as a matter of fact, we find is that nearly every one of the chief known methods of disposal of the dead is practised in Australia. We find inhumation in the extended and the contracted positions; we find preservation on platforms, on trees and in caverns. There is embalming though of a simple kind, and, lastly, there is cremation.

On the assumption of the unity of Australian culture, we have to suppose that this lowly people with their

[^285]relative uniformity of social structure, of art and of material culture has yet independently evolved the chief methods of disposing of the bodies of the dead which are found throughout the world. We know the Australians to be a people of far greater mental power and initiative than the extreme simplicity and crudeness of their material culture would suggest, but it is straining the doctrine of the independent origin of human custom to the breaking point to suppose that these people have been capable of such extensive and revolutionary changes in a department of culture where all the emotions and sentiments which influence mankind most deeply might be expected to have preserved unity and conformity to established custom.

Further, the comparison of Australian modes of disposal of the dead with those of neighbouring Oceanic peoples, makes it still more difficult to accept the independent origin of the Australian practices. In this comparison, we find not merely general resemblances, but those in detail which are still more useful indications of a common source. If it should be shown, as I hope will be the case, that the Melanesian and Polynesian modes of disposal of the dead belong to the cultures of peoples who have reached these regions from elsewhere, it will, I believe, be found impossible to withhold assent to the proposition that there has been a similar introduction from without into the Australian continent.

Further, there is an aspect of the subject about which we can be confident. New funeral customs are not widely adopted as the result of the visits of strangers who come and go, nor can they possibly be due to visits of the Australians themselves elsewhere for trade or other purposes. People do not adopt new funeral rites merely because they see or hear of them elsewhere. If the funeral customs of Australia have been introduced from without, they have been the outcome of permanent settlements of strangers who lived and died in such
close relations with those among whom they settled that the visitors were able to prescribe how their own bodies should be treated and were so honoured, if not reverenced, that the customs they introduced have become established and time-honoured practices.

The problem before us is to reconcile this diverse influence from without with the relative uniformity of the physical type of the Australian people. I suggest that the clue to the solution of this problem is to be found in the introduction of the diverse funeral rites of Australia by relatively small bodies of immigrants who had so great an influence only through their possession of cultures which seemed to those among whom they settled to be vastly superior to their own.

The area of the Australian continent is so large and the natural means of travel so scanty that if the introduced cultures were brought only by small bodies of immigrants, it is unlikely that these would themselves have been able to pass to the interior in any number. The introduced elements of culture would have been carried chiefly by means of secondary movements of the earlier inhabitants who had been influenced, and thus would become natural the relative uniformity of the physical features of the Australian.

There remains to inquire what may have been the source of the superiority which on this hypothesis the Australians ascribed to each successive body of immigrants. We seem driven to suppose that after each new arrival the people reached a state in which they were once more ready to be impressed by the superiority of an external culture.

In turning to this inquiry we come at once upon a position which seems at first sight to contradict a conclusion formulated in the preliminary portion of this paper. If it is material culture which so especially impresses rude peoples and allows small bodies of immigrants to exert so great an influence, should we not expect to
find in Australia some indications of the material arts which on my hypothesis gave their potency to the invading cultures? We have to explain why the material culture of Australia should be so simple; why there should be such an absence of the complexity which is suggested by the ritual of death.

I have supposed that the introducers of the diverse funeral rites of Australia were but diverging streams of people who introduced similar rites into Melanesia and Polynesia. In these latter regions we have abundant evidence of the persistence of the material arts introduced by the immigrants. On the hypothesis I have put forward we have to suppose that these arts have disappeared in Australia.

I have dealt elsewhere with the subject of the disappearance of material arts ${ }^{1}$. I have sought to show that even the most useful arts may disappear among those of lowly culture, and it is essential to the argument I am now developing that this disappearance of useful arts should have taken place in Australia, and on a scale perhaps unrivalled anywhere else in the world.

On the principle I put forward the history of Australian society presents itself as that of an isolated people dwelling in an environment which offered little inducement for the maintenance, much less for the development, of any but the simplest arts of life. Among this people I suppose that there have come at intervals bodies of immigrants, whose numbers were small, but whose culture seemed so wonderful to the lowly people among whom they settled that they were able to exert a great and far-reaching influence, an influence not limited to the parts where the visitors themselves settled, but one which was carried by secondary movements throughout the length and breadth of the Australian continent.

After each new arrival and sowing of external influence, I suggest that the material culture of the visitors

[^286]degenerated and had little permanent effect. It is in religious and magical rites, in myth and tradition, that the traces of these successive influences are to be sought. Owing, partly to the failure of the immigrants to implant the material arts which had been the chief cause of their influence, partly to the loss or degeneration in course of time of such arts as made a footing in the new home, I suppose that Australian culture sank after each immigration nearly or wholly to its former level so that each stream of external influence found a people ready to be impressed anew. The degeneration and loss of the material arts introduced from without make it possible to understand the existence of a complexity in the culture of the Australians which would seem at first sight to be inconsistent with the physical uniformity of their race and with the simplicity of their material arts.

The clue to the contradiction which seems to be present in Australian culture, in its combination of evidence for simplicity and complexity, is, I believe, to be found in the principle I have put forward. It has arisen through the preponderating influence which falls to the lot of small bodies of immigrants whose culture seems great and wonderful to those among whom they settle.

Further, it seems possible that the process I have suggested may enable us to understand another peculiar feature of Australian culture. If I were asked to pick out any one character which gives the Australians so exceptional and interesting a position among the peoples of the world, I should point to the combination of their highly complex social and magico-religious institutions with the extraordinary simplicity and crudeness of their material and aesthetic arts. I do not think that I need point out at length how naturally this would follow from the loss of useful arts which I have supposed to have taken place. A process which I have so far used only in a subsidiary hypothesis to support my main position, enables us to understand another puzzling feature of

## THE CONTACT OF PEOPLES

Australian culture. Not only is the incoming of small bodies of immigrants who lose their material arts able to explain the combination of physical uniformity with cultural diversity; it also enables us to understand the combination of extreme material simplicity with the high degree of complexity which is shown by the social and magico-religious institutions of Australia.

## Megalithic Monuments.

I have next to consider whether the principle I have formulated may not help towards the solution of another problem which is now very prominently before the archaeologist and the ethnologist. The monuments constructed of large rough stones found in many parts of the world have such striking similarities that to the untutored intelligence they naturally suggest a common source, and this mode of origin has also been held by many of those archaeologists who have paid especial attention to the matter. Ethnologists, however, have been so under the sway of the idea that such similarities are indications of psychological, rather than of historical, unity that they have almost unanimously, at any rate in this country, rejected the possibility of the spread of the monuments from a common source. Forty years ago a large mass of evidence pointing to historical unity was collected by Fergusson ${ }^{1}$, but even so recently as igII at the Portsmouth meeting of the British Association one of our leading anthropologists cited Fergusson's view as an example of the fate which every theory must expect which ventures to refer human institutions to a common source. Before the Portsmouth meeting, however, had run its course it seemed that the idea of cultural unity was scotched, not killed, for Elliot Smith appeared as the defender of the view that the megalithic monuments of the world are the work of

[^287]people actuated by an idea which did not arise independently in many different places but had spread from one centre ${ }^{1}$. He has since developed this view more fully ${ }^{2}$, and megalithic monuments were the subject of a discussion in igiz at Dundee where, however, it may be noted that the weight of expert opinion was thrown almost entirely into the scale against the cultural unity of the monuments.

I need hardly say that I do not propose to attempt to deal fully with this subject. I can consider only whether we are at all helped towards the solution of this problem if we suppose that small bodies of immigrants succeeded through the superiority of their culture in introducing the practice of building these monuments.

I will consider first whether this will help us in a point which divides the advocates of cultural unity. Most of those who accept this unity suppose, as does Elliot Smith, that the idea of building the megalithic monuments and the knowledge necessary to put this idea into execution were not carried by one racial movement but passed from people to people, the movement being one of culture rather than of race. So far as I know Macmillan Brown ${ }^{3}$ and Peet ${ }^{4}$ are the only open adherents of the view that the megalithic monuments of the world are the work of one people. I believe that the usual ground for the rejection of this view is the physical diversity of the people who inhabit the countries where megalithic monuments are found ${ }^{5}$. To most people I find that it seems

[^288]almost too grotesque for serious consideration to suppose that there can be anything in common to the cultures of Spain and Japan, of Ireland and Madras. This dissimilarity of physical character, however, ceases to be a difficulty if the megalithic culture has been carried, not by vast movements of a conquering people, but by the migrations of relatively small bodies of men. If there once travelled widely over the world a people imbued with the idea of commemorating their dead by means of great monuments of stone, and if these people possessed a culture which seemed to those among whom they settled to be greatly superior to their own, it will follow on the principle I have put forward that their number may have been so small as to have exerted little, if any, influence upon the physical type of those among whom they settled.

Having now considered the bearing of our principle on the dispute between the advocates of racial or cultural movement, I can turn to the main problem. I have supposed that it is superiority of culture which gives their influence to small bands of immigrants. If the carriers of the megalithic culture made their way, not by force of numbers but by the superiority of their endowment, we have to seek for the grounds of this superiority.

It might be thought sufficient to point to the monuments themselves. Such examples of human workmanship cannot but have been associated with other cultural features calculated to impress any people, much more such as we must suppose those to be among whom the migrants settled. I propose, however, not to be content with this easy answer but to inquire whether we cannot define the main cause of their superiority more closely.

It is an essential feature of the scheme put forward by Elliot Smith that the spread of the megalithic culture

[^289]was closely associated with the knowledge of metals. If, as he supposes, the idea of commemorating the dead by means of large monuments of stone travelled in close company with the first knowledge of metals, we need go no further in our search for the main cause which enabled the few to implant their culture. If Elliot Smith is right, metals stood in the place of the firearms of to-day as the essential element of culture which allowed the few to prevail.

There is, however, a serious objection to the view that the megalithic culture had as one of its elements the use of metals. In many places where megalithic monuments are found, there is no evidence of their association with metals, and even where metals are present the stone was not worked by means of them. If, as Elliot Smith supposes, megalithic monuments first arose and only became practicable through the use of metals, the child appears to have outrun its parent in its journey through the world. We have to explain the lagging behind of the use of metals through which the execution of megalithic monuments first became possible.

I venture to suggest that the clue to the difficulty is again to be found in the carrying of the megalithic idea by small bodies of migrating people. There is a great difference between the introduction of metals and the introduction of the art of working metals. In many parts of the world where metals are now in daily use, isolation would soon reduce the people once more to the use of stone or shell. Small bodies of migrating people would soon exhaust such metal tools as they could take with them. Unless they discovered metallic ores in their new home and were able to command the means of extracting from them the metal they needed, they would soon be compelled to be content with the tools of those among whom they had settled. The loss of the art of working metal, which might seem almost inconceivable if carried by invading hordes spreading over large tracts
of country, becomes more easy to understand if the art belonged to a few migrants settling among a rude people destitute of all but the simplest arts of life. The carrying of the megalithic culture by the few makes possible a case of the loss of useful arts which otherwise it would be difficult to understand.

On this assumption it becomes possible that in some cases the use of metals may have been lost on the way to the extremities of the distribution of megalithic monuments. In some of the outlying countries reached by the megalithic culture, the migrants may already have lost the knowledge of metals and in these places their superiority of culture would have been due, not to the possession of metals themselves, but to features of culture which had become possible through the use of metal by their ancestors.

The principle which I have supposed to govern the contact of peoples not only removes certain difficulties which stand in the way of the unity of the megalithic culture ; it also enables us to understand certain characteristic features of the distribution and mode of transport of this culture. A striking feature of the distribution of megalithic monuments is the limitation to islands and regions of continents bordering on the sea. This limitation can only be accounted for by one mode of transport. Whether the culture were carried by one race or passed from people to people, we can be confident that its chief, if not its only, route was on the sea. Transmission by a seafaring people will explain the presence of the monuments on islands and in the neighbourhood of coasts, but, standing alone, it fails to explain the limitation to these situations; there have to be explained such striking features of distribution as the total absence of megalithic monuments from the central parts of Europe and Asia. If the idea of commemorating the dead by monuments of stone had been carried through the world by conquering hordes of a migrating people, this limitation of distribution would be
a matter difficult to understand. The limitation to islands and coast-lines suggests rather small trickling movements of a stream of people who made their way, not by force of numbers or of arms, but by such superiority of material and mental endowment as made it possible for the few to implant their culture. Not only does the carrying of the megalithic culture by small bodies of people remove certain difficulties of the main problem; it also enables us to understand one of the most characteristic features of the distribution of the monuments, the failure of their builders to construct them at any great distance from the sea.

It may be objected that there is reason to associate the megalithic monuments with war. The nature of many of the megalithic remains suggests that they mark the sites of great battles. Even if this were established, however, it would involve no contradiction. The example I have given from Fiji is sufficient to show how visitors peacefully received may become the instrument of success in war. We have only to suppose that the cultural development started by the strangers sooner or later took a warlike turn. The limitation of megalithic monuments to the neighbourhood of the sea suggests, however, that wars thus started did not cover a wide field. They must have failed to carry the practice of constructing monuments far from the sea even if they succeeded in implanting other elements of the culture brought by the visitors.

Further, if the megalithic culture were sea-borne, it becomes natural, if not even necessary, that it should have been carried by the few. The vessels in which there journeyed the bearers of the megalithic culture must have been seaworthy and roomy craft, but it is unlikely that they could have carried large bodies of men past the open and hidden dangers of the sea, even within regions where every one acknowledges transmission. And if we accept the unity of the culture, of a culture which travelled from its birthplace to Ireland and Scandinavia in one
direction and to Japan and the Pacific Islands in another, it is hardly possible that it can have been carried by large masses of people. We are thus led to the same conclusion as that suggested by the principle I have put forward. Both lines of argument converge and bring us to the conclusion that, if the megalithic culture be one, it was carried by small bodies of people.

One more suggestion. May there not be a relation between the passage of the megalithic culture by sea and its association with the use of metals? May it not have been the knowledge of metals which first made possible the building of craft fit to carry men to such distant parts of the globe? We know that vessels capable of long ocean voyages can be constructed without the use of metal, but if the megalithic idea had its birth in the knowledge of metals and was fostered by their use, a great impetus must have been given to the manufacture of vessels which would make possible the dissemination of the idea throughout the world.

I believe that it will become far easier to accept the ethnological unity of the megalithic culture if we assume that it was carried by small bodies of migrating people peacefully received. The peculiar features of the distribution of the monuments, the transport of the culture by the sea, the slowness with which it travelled, all become natural if those who carried the culture were small adventurous bodies of seafarers who through the knowledge of metals had, directly or indirectly, reached a level of culture so high that they became the chiefs, perhaps even in some cases the gods, of those among whom they settled.

It is evident that the principle I put forward will become the more important the nearer do we approach the extremities of the distribution of megalithic monuments. In the immediate neighbourhood of the birthplace of the megalithic idea we should expect to find it carried by larger masses of people who may in some cases have made their way far inland. Thus, the wide
distribution of the monuments in France and their extension from the Mediterranean to Brittany show movements on a scale which suggest that we are not far from the original home of the culture. It is rather in India, Japan, the Pacific Islands and South America, that the problem becomes simplified by the adoption of my principle.

I began this paper with the formulation of the principle that the extent of the influence of one people upon another depends on the difference in the level of their cultures. I have now tested the value of this principle by applying it to the study of two problems which furnish prominent examples of difference of standpoint in the ethnology of to-day. In the case of Australia my task was to reconcile cultural diversity as shown by funeral rites with physical unity. In the megalithic problem the task was rather to reconcile cultural unity with physical conditions of the utmost diversity. The application of the principle has made it possible to understand much that without it would be obscure and contradictory. I believe that we shall have taken a distinct step towards the solution of these problems if we assume that in each case small bodies of migrating people produced deep and farreaching changes through the possession of a culture which seemed great and wonderful to those among whom the migrants settled.

W. H. R. Rivers.

## THE EVOLUTION OF THE ROCK-CUT TOMB AND THE DOLMEN

When Mr Pepys visited Stonehenge in 1668 he recorded the fact in his diary with the comment 'God knows what their ["the prodigious stones "] use was'; and since then many hundreds of writers have re-echoed in varied phraseology his pious confession of ignorance, not only in reference to the impressive monument in Salisbury Plain, but also to the kindred structures elsewhere variously known as dolmens and cromlechs, stonecircles and cairns, alignments and menhirs, and all the other categories of ancient erections now commonly included in the generic, title ' megalithic.'

The famous diarist was sanguine enough to hope that, although the use of these stones was 'hard to tell,' it 'might yet be told': but the latest English writer who discusses the subject is more pessimistic. For he says that 'it (i.e. ' the explanation of the origin of megalithic monuments') is a problem which has not yet been solved, and which perhaps never will be' (I, p. 262).

But this note of despair, common though it is in the literature of the subject under consideration, has not overwhelmed all who have discussed these monuments. From time to time serious attempts have been made to offer an explanation of how these structures came into existence ; and, of course, such impressive relics of a past and forgotten generation have throughout the ages excited the curiosity of everyone who saw them, and naturally enough became the nuclei around which a wealth of fairy tale and ill-informed speculation has collected.

According to Pastor (2) the oldest literary reference to megaliths occurs in a decree of the church in the fifth century, in which they are called altars: but in his great work, Monumenta Danica, published in 1642, Olaus Wormius gave a precise and most instructive account of a large number of these monuments and proved quite definitely that many of them were graves.

Of course there are many allusions in the older literature to the building of simple cairns-such as the biblical account of the burial of Absalom, as well as in the writings of Virgil and Lucan. The most definite and specific account of the building of pyramids beyond the boundaries of Egypt occurs in the Apocrypha, I Maccabees, ch. xiii.

In the year 1725 Dr Thomas Molyneux, F.R.S., Professor of Physic in the University of Dublin, wrote an exceedingly interesting and instructive memoir (3) on the Irish tumuli. He showed them to be identical in conception with the structures described by Wormius in Denmark, and inferred that the Irish monuments were directly inspired by the Danish, if not actually built by immigrants from Denmark. But when he applied the name 'Danish Mounts' to tumuli such as the famous New Grange monument, of which he gives an excellent account, he was not harbouring any misconception as to the restriction of such monuments to Denmark and Ireland.

The Dublin Professor of Physic recognised clearly, as most serious students of the problem since his time have also done, that the essential features of the New Grange Tumulus were identical with those of the Egyptian Pyramids, of which Dr Grave had recently given an account in his Pyramidograpbia; and being a man of logical mind and clear insight, Molyneux drew the natural inference that these vast funerary monuments, presenting so many peculiar features in common, could not possibly have been evolved independently, but must
be genetically related in some way. With no information as to the relative dates of the Egyptian and the Irish tumuli it is perhaps not altogether surprising that Molyneux should have come to look upon 'the more sumptuous,' i.e. the Pyramids, as being 'copied from these more antient sepulchral mounts' (such as those of Denmark and Ireland). But we now know that the Egyptian Pyramids were built nearly thirty centuries before the beginning of the Christian era, whereas the most recent account (4) of the New Grange monument assigns an age of about I 500 b.c. to it. Had Molyneux possessed this information and realised that the Irish monuments were certainly much more recent than the Egyptian, no doubt he would have come to the same conclusion as many recent scholars, and looked upon the Pyramids as the finished prototypes of the cruder western European copies. So many writers since Molyneux's time have been struck with the essential identity of the architecture of the Pyramids and the chambered tumuli, and have assumed their common origin as an obvious and unquestionable inference from the facts, that within the limits of this article it would not be possible, even if it were desirable, to give the full bibliographical references. Recently I chanced upon an old journal which illustrates how widespread such views had become more than sixty years ago. In Sharpe's London Journal for I 849 (5) I was very much surprised to find the author of Proverbial Philosophy, with something of his characteristic unction, giving expression to these obvious truths in these words:
'In the cairn, above all other imitations, the magnificence of Egypt is pre-eminent ; her pyramids are assuredly the most glorious cairns of human piling. And how interesting it is to us Britons-the despised barbaric hordes "at the ends of the earth,"-to note such evident traits of an early eastern origin for the humbler tumuli that crown our Cornish heights, and are thickly studded over the downs of Dorsetshire !' (p. I 59).

I present my critics with the obvious gibe at my 'authorities'; for I quote Mr Tupper not only because he gives expression to the obvious view in a way that appealed to his popular audience, but also because he states a fact which is irrefutable. One of the most resolute critics of my views, in the course of a written statement which he kindly gave me of the grounds for his objections, was forced into making the admission that 'the idea which led other nations, from Japan to the Atlantic, to erect megalithic monuments is actually seen in the Pyramids, for these are typical dolmens covered by cairns.'

I have chosen these references-when I might have given more weighty quotations from the scientific memoirs of modern German and French archaeologists-for the specific purpose of calling attention to the fact that the resemblance of the chambered tumuli to the Pyramids is so obvious as to appeal to everyone who gives the matter any thought. Yet many of my critics tell me there is no resemblance whatsoever between Egyptian and megalithic architecture.

The issues involved in the problems of megalithic monuments are so vast and intricate, and the literature relating to them so overwhelmingly extensive and diffuse, that for the purposes of an article such as this it is necessary to cut away all irrelevant issues and deal with the crux of the main problem.

In my opening statement (6) in the discussion 'On Megalithic Monuments and Their Builders' at the Dundee meeting of the British Association last year I explained the wider issues and showed how a broad survey of all the facts makes prima facie a powerful argument in favour of Egypt as the home of the ideas expressed in the megalithic culture. In my present contribution I propose to deal with the essential principles underlying my working hypothesis and examine in some detail their application in the specific case of the countries nearest to Egypt. If
this first link can be forged the principle so established can then be extended to fashion other links in the cultural chains, so as eventually to link the Mediterranean on one side to British Isles and Western Europe, on another to Africa and Madagascar, and yet again to Asia, the Pacific and America, thus almost encircling the earth.

The temptation is strong to buttress my argument with the corroborative statements of scientific authorities or to establish its validity by exposing the hollowness of the criticisms that have been rained upon it ; but I have no desire to snatch a forensic victory. What I prefer to do is to take the evidence collected by archaeologists who are certainly not biased-to use a very mild form of words-in favour of my views (as a matter of fact a good deal of my 'ammunition' consists of the projectiles fired by the enemy at my stronghold) and to show that, using their own facts and arguments, it is impossible to escape from the conclusion that emerges.

Fortunately I can refer my readers to a very concise and accurate summary of the facts relating to megalithic monuments written by Mr T. Eric Peet (7), and thus save a good deal of preliminary description and discussion by stating that I agree with practically everything he has written in that work except the last nine pages. This solid mass of facts and inferences upon which we agree will afford a convenient basis for discussion, and by accepting that statement I cannot be accused of begging the question of fact and choosing only such data as suit my purpose, for Mr Peet vigorously objects to my views. They are anathema, and are not permitted to appear in his excellent book. Mr Peet has dealt with my heresies elsewhere (I) and has thrown enough stones of criticism at them to make a respectable cairn, though not I believe one sufficiently weighty utterly to bury them.

It simplifies my task also that it is Mr Peet who has compiled this excellent summary and has defined so precisely the objections to the acceptance of my hypothesis,
because the information culled from his earlier book (8) had a considerable influence originally in shaping my opinions.

When three years ago I read that most useful book in which he set forth so frankly and so lucidly the apparently insoluble nature of the paradoxical problems involved in the introduction of the custom of burying in rock-cut sepulchres into Sicily and Southern Italy, it seemed to me that Dr Reisner's (9) demonstration of the evolution of stone-working in Egypt provided the clue for the solution of all these difficulties. The evidence summarised so clearly by Mr Peet showed quite certainly that the impetus to work in stone entered Italy at the extreme south, but without any signs of a great racial movement or disturbance of the rest of the cultural development to justify a theory of invasion. There was no reasonable explanation, apart from such an influence from abroad, why the people of the south should suddenly have modified their methods of inhumation : or, on the other hand, if, for some reason not apparent to us, they did so without foreign influence, why the people of the rest of Italy did not follow their example, when the isles of the Mediterranean did so.

Having convinced myself that the Proto-Egyptians and the Neolithic people of Italy were undoubtedly kinsmen, and that the former had (during the course of several centuries, while they were slowly emerging from the Stone Age) gradually modified their original practice of simple inhumation and adopted measures that frequently involved the cutting of rock-tombs and the building of stone superstructures, it seemed an obvious way out of the difficulty defined by Mr Peet to assume that the sudden adoption of essentially similar practices in Italy (and also, as in Egypt, at some time after the introduction of the use of copper tools) might be attributed to Egyptian influence. The absence of evidence of racial immigration and cultural disturbance might then be
explained by the fact that the two races and their respective cultures were so nearly akin that the alien influence of Egypt would not be obtrusive or easily detected. There was so much confirmatory evidence derived from other sources that lent support to this working hypothesis, and the tentative explanation so given resolved in a simple way such a host of apparently insoluble difficulties in the early history of civilization, that I was persuaded a sufficiently strong prima facie case had been established to put before archaeologists.

When this general idea was crudely adumbrated in my little book on the 'Ancient Egyptians' (io), I made no attempt to set it forth in detail and discuss the multitude of issues involved in the acceptance of any such hypothesis. Dr Reisner's work in Egypt was not known to most of those who were discussing the problems of the Mediterranean ; and I had hoped that, once attention was called to the obvious significance of his researches, those interested in the dawn of history in the Mediterranean would at least have given some serious consideration to the momentous developments of Egyptian arts and crafts early in the third millennium b.c. Whether or not these developments wrought all the changes attributed to them, they cannot be excluded from consideration in any scheme of reconstruction of early Mediterranean history.

I had hoped that some archaeologist more familiar with Mediterranean 'prehistory' than I can claim to be would have admitted that a prima facie case had been established and have investigated the matter. But as no one has accepted my suggestions when set forth crudely in general terms, I shall attempt to indicate more exactly how such a hypothesis can be applied to explain the details of the process of evolution of the Mediterranean rock-cut tomb and the dolmen.

At the outset I should like to emphasize the conclusion, which was set forth independently by Mr Peet (I I) and myself (6) at the British Association Meeting in

Dundee, that no one who impartially examines the facts can refuse to admit the utter improbability of such curious monuments as, for example, the 'holed dolmens' of Europe, the Caucasus and India being evolved independently the one of the other. I assume then as definitely established the unity of origin of all the varieties of monuments commonly included under the designation ' megalithic,' and refer to Mr Peet's book (7) all those who refuse to subscribe to this opinion.

The Evolution of the Egyptian Mastaba from the Neolithic Grave.

It is commonly believed (even by certain of the archaeologists who have helped in no small measure to collect the information that disproves this common error) that no evidence of a true Neolithic civilization has been found in Egypt. But Dr Reisner has shown (9, p. 134) that it was not until midway through the known Predynastic period that copper ornaments were used in Egypt, and until near the end of what he terms the ' Middle Predynastic' period that practical metal implements were invented. So that for at least two-thirds (taking into consideration the fact that the arts and crafts developed more slowly before the use of metals) of the Predynastic period Egypt was in the Neolithic stage of culture. During the latter part of this time the stage of her civilization was analogous to what the Italian archaeologists have called the ' Æneolithic' period, a term for which those scholars who object to hybrid words would substitute 'Chalcolithic.

Most competent authorities regard the estimate $3300 \pm 100$ b.c. as a close approximation to the date of the commencement of the 'Dynastic' period in Egypt, and all who do not admit the validity of these figures would make the date even more remote. Hence
everyone is agreed that the Neolithic period came to an end in Egypt long before the year 3200 b.c. In other words it is certain that the Age of Copper was fully established in Egypt by that time. Now although we have positive evidence that most of the Mediterranean populations (as well as those of Mesopotamia and India) passed from the Æneolithic Age into a definite Age of Copper ${ }^{1}$, in none of these lands is there any definite evidence, nor I believe anything to suggest, that any other people threw off the bondage of the Stone Age so early as Egypt.

In the Predynastic Age in Egypt the corpse was buried lying flexed upon the left side, with the head south: it was protected from contact with the soil by linen, mats or skins, or in the larger tombs by a palisade of sticks or a wooden frame in the grave. The small graves were shallow pits of an oval or nearly round form; the larger graves were deeper rectangular pits, roofed with branches of trees.

At the end of the Predynastic period the practice was introduced of lining the grave with brickwork to prevent the sand falling in and also to support a roof of branches, logs with layers of bricks upon them, or, later, corbel vaults, which were certainly invented about this time in Egypt. [The above two paragraphs are taken direct from Reisner ( 9 , p. 127). For the important and conclusive proof of the origin of the corbelled vault see p. i 3 of the same work.] In Nubia where the graves were usually cut in hard mud the brick lining was not necessary, but the shape of the grave was altered to a beehive form so as to reduce the size of the opening which was usually covered with a stone slab (for a full discussion of this see 12, p. 325).

Thus it is clear that it was the nacure of the only

[^290]kind of soil (loose sand) available for burying in Egypt which made the use of brickwork necessary as a lining of the grave. And as this use of brickwork supplied the circumstances which led to the accidental discovery of the corbel vault (9, p. I 3) and also determined the character of the buildings which were afterwards imitated in stone ( 13 ), it is very important to emphasize at the outset that it was the conditions peculiar to Egypt which started the evolution of funerary structures on these lines.
[In an article such as this it is quite impossible adequately to summarise the vast accumulation of facts bearing on this first stage in the elaboration of tombstructure, which Dr Reisner and his colleagues have collected, set forth in such detail, and explained with so much insight. But before the reader questions these fundamental facts upon which the whole superstructure of my argument rests, he should make himself acquainted with the data, especially Dr Reisner's Early Dynastic Cemeteries of Naga-ed-Dêr (9), Mr Mace's report on the continuation of the evolution of grave-types on the same spot ( 13 ), and Dr Reisner's Report (I 2 ) on the Archaeological Survey of Nubia; and Mr Firth's Report (14) on the continuation of the same Survey.]

When the Proto-Egyptian had learned efficiently to line the grave, either with wood or brickwork (with or without a definite coffin made of wood, pottery or, later, of stone) the skins and matting previously employed to protect the corpse from direct contact with the soil were no longer considered necessary, though the loose linen wrapping was still retained. Quite early in the Dynastic history the wooden coffin, the pottery coffin and the stone sarcophagus were invented to overcome these special difficulties that appealed to the ProtoEgyptian.

The same feeling of respect for the dead and the desire to keep it from contact with the soil may also have prompted the attempts (which were being made
in Predynastic times in Egypt) to provide an efficient roof to the grave. Instead of merely pouring earth in upon the corpse and so filling in the grave and piling up a mound of earth or stones above it, as no doubt all people who practised inhumation must originally have done, the Proto-Egyptian began to roof the grave with branches of trees-no doubt for the same reason that he lined the grave, i.e. to protect the corpse from direct contact with the soil. There was of course the kindred idea that the corpse was not dead in the sense that we moderns conceive it, but was continuing for a time some sort of existence. Actuated by this idea it was supplied with food and all the objects it needed or treasured in its previous existence, if only to keep it, or rather its spirit, from pestering the living; and the grave was its dwelling in the new phase of its 'existence.'

The burying of valuable objects with the corpse led to frequent rifling of the graves (by the deceased's contemporaries), and this repeated desecration must have familiarised the people with the knowledge that in Egypt the bodies of the dead were often preserved in a marvellously uncorrupted state by the action of the forces of nature. The hot dry sand in which the early Predynastic graves were scooped out often produced such rapid desiccation that the whole corpse was preserved indefinitely without much change. It is something more than a mere coincidence that about this time the importance attached by the Proto-Egyptians to the preservation of the actual bodies of their dead became definitely enhanced; and, as the material prosperity of Egypt increased, it found expression in an aggrandisement of the tomb and in all the provisions made for the welfare of the corpse.

But as the grave increased in size and depth its constructors were faced with many difficult technical problems; and again I want to emphasize that these difficulties and the need for overcoming them were peculiarly Egyptian. In Egypt alone did the demand
exist for the aggrandisement of the tomb in this particular way; and in Egypt the conditions of the soil created many of the special constructional difficulties that had to be circumvented.

In Protodynastic times, as the grave increased in size, logs of wood were used for roofing it, and layers of mudbrick were put upon the logs further to protect the burial from damage or desecration. But the time arose when the tombs of the wealthy became so large, partly no doubt because they had to accommodate such vast quantities of the corpse's equipment of food and offerings, that it became necessary to erect walls to break up the extent of the spaces to be spanned by the roofing beams (9). Hence the grave became converted into a suite of rooms one of which was occupied by the corpse and the others became mere magazines for the multitude of pots. The grave also became so deep that an incline or a flight of steps had to be made, not only for the workmen engaged in the construction, but also for those who entered the tomb at the burial ceremony. This stairway was at first made most often on the side of the tomb that looked toward the Nile, but it was often made on the north side of the grave.

As the tomb became larger the importance of protecting the roof naturally became enhanced. A few courses of mud-brick supported by logs were no longer a sufficient protection. Nor perhaps did the people consider such an unobtrusive indication of the position of the grave an adequate memorial. For it seems probable, although quite conclusive evidence is not available, that even in Predynastic times it was the custom to look upon the roof of the grave, or the pile of earth or stones placed upon it, as the place to which offerings to the deceased should be brought from time to time; and this factor may have contributed to the aggrandisement of the superstructure, which the due protection of the grave now made necessary.

For the purpose of retaining the earth (Figure 2, $M$ ) that was piled upon the roof four enclosing walls of mud-brick were built in the form of an oblong, the long axis of which was directed north and south. Figures 1 and 2 show these walls $(W)$ in plan and section respectively. It is customary now to refer to such a superstructure as a 'mud-brick mastaba.' On the side that looked toward the Nile (i.e. the western face of those upon the right bank, the eastern face of those on the left) a space was enclosed within a low brick wall (enc.) as a kind of courtyard $(C)$, in which the offerings of food might be deposited in front of the mastaba. This enclosed courtyard, the prototype of the chapel of offerings,


Fig. i. Plan of a Protodynastic Mastaba. The stairway ( $s t^{\prime}$ ) may be in either of the situations indicated, i.e. on the north or the side facing the Nile.


Fig. 2. Diagram of a section of such a mastaba.
was floored with beaten mud. Sometimes the whole area occupied by the mastaba was encircled within the enclosing wall. 'It formed a sort of courtyard which prevented encroachment of other tombs on the mastaba itself and intrusion on the ceremonies of presenting offerings to the dead' (9, p. 6.-For a full account of the varieties of these courtyards and a reconstruction of the mud-brick mastaba, see Mace, I3, p. I 3. Mr Quibell ( I 5 ) has recently found at Sakkara actual mud-brick mastabas absolutely confirming Mr Mace's earlier restoration.)

The shape of the Proto-Egyptian grave, which in the earliest period was roughly elliptical or circular, became definitely oblong, perhaps to facilitate the application of the mud-brick lining. When such a grave was roofed with parallel logs, and brick walls were built to retain the mass of earth placed upon the roof, these walls naturally conformed to the oblong form. The minds of the Proto-Egyptians, who no doubt looked upon the grave itself as the dwelling of the dead, were already attuned to respond to the resemblance which such an oblong brick structure presented to their own houses (see 16). Thus it is not surprising that two niches, representing doors, were made in the wall that looked on to the courtyard. Such doors were no doubt regarded as symbolic of the means of communication between the living and the dead, as the place to which the friends of the deceased could present their offerings of food.

About two years ago Mr Quibell (15) brought to light a very large series of these mud-brick mastabas of the Second and Third Dynasties at the Sakkara necropolis. He says 'these tombs were most varied in size but uniform in plan. One was 50 metres long and 30 wide, but they may be as small as I•5 metres long and only I metre high. It consists of a hollow oblong of unbaked brickwork filled in with gravel and stone chip, plastered and whitewashed externally. On the east side [the cemetery is on the west bank] are two niches, the southern one being the larger and more important.'

From the time these brick mastabas came to be imitated in stone, practically all of them were built on the west bank, so that the chapel of offerings was usually on the east side. The fact that when the mastabaconception came to be copied-and I hope to be able to prove definitely that it was copied-in megalithic monuments the entrance and place of offerings should usually have been located upon the east is a very curious phenomenon when we consider that in Egypt this plan
of orientation was a fashion which came definitely into vogue only when the great Pyramids were being built upon the left bank of the Nile, and Sun-worship was in the ascendant.

Before passing on to consider the evolution of the mastaba in Egypt I should like briefly to consider how these Egyptian methods of tomb construction became modified when practised by a less cultured though kindred people further south in the Nile Valley.

In Nubia the graves were cut, not in loose sand as in Egypt, but in hard mud. Wood, rare enough in Egypt, could be obtained in Nubia much less often, so slabs of stone were used for roofing graves. When the corbelvault was invented in Egypt (9, p. 13) the Nubians imitated it by cutting beehive-shaped graves in the mud. The advantage of this type was that the hole to be closed was smaller, and slabs of stone of sufficient size were more easily obtained. Although differing conditions in Egypt and Nubia led to a wide differentiation in grave construction, yet the debt of Nubia to Egypt is shown in many imitations of unnecessary details; for example, the internal walls of their tombs were often plastered with mud, like the mud-brick lined tombs of Egypt.
[This is a summary of $\mathrm{I} 2, \mathrm{p} .324$.]
As time went on, in Nubia and further south the burial customs became further differentiated from the Egyptian practices.

About twenty centuries before the Christian era a group of people closely akin to the Predynastic Egyptians, both in their physical structure and in culture, came from the south and settled in Nubia.

In their hands the common culture, which originally they shared with the Proto-Egyptians, had become specialised in a distinctive manner. When these people first came north they were in the habit of burying their dead, contracted on the rigbt side, head east (whereas the Predynastic Egyptian custom was left side, head soutb),
in narrow, rectangular, and apparently unroofed graves. Personal ornaments and toilet objects were placed in the grave; but, as in Egypt after the Pyramid Age, the funerary pottery was not placed in the grave but at the foot of the east face of a circular stone superstructure or retaining wall of a cairn or mound covering the grave. [This is taken from Mr Firth's report, 17.]
' The later graves were lined (like the Proto-Egyptian graves) and roofed with mud-brick.' 'The circular stone superstructures covering and surrounding these vaults were of considerable size and were designed as retaining walls to the mound of earth covering the grave. In one case the retaining wall was built of mud-brick. The pottery offerings placed outside these later graves are enclosed in neat chapels of mud-brick built against the east side of the superstructures, in evident analogy with the mastaba chapels of the Old and Middle Kingdoms in Egypt' (17, pp. 2 and 3). It is instructive to note that in these later types, where the influence of the Egyptian mastaba-construction is more obvious, the heads of the bodies point north as was the custom in Egypt after the Fourth Dynasty.

In the Report of the Archaeological Survey of Nubia for 1908-1909 Mr Firth gives a detailed account, 14, of the variations of these interesting types of Nubian graves, with excellent photographs (Plates 17 and 18) and a most instructive series of diagrams (see especially Figures 94, 157, 158, 159 -which I reproduce here as Fig. 3-160, 161 and 162). 'In Cemetery 87, the stone cairns surround and cover the deep narrow graves of the period, but their unfitness and instability as a means of protecting the pits, led to the graves being separately closed with sandstone slabs as in the Early Dynastic period, and the cairn becomes a circular superstructure at the foot of which the funerary offerings might be placed' (14, p. 15).

In the desert behind the temple at Kalabsha Mr Firth
(14, p. 37) found a large series of graves, which he thinks must be those of desert Blemmyes of Roman times :
' Three types may be distinguished :
i. A circular walled enclosure containing a single roughly-walled rectangular grave covered with undressed stone slabs and concealed by a heap of sand and small stone. Bodies probably extended.
ii. A walled grave as above or a crevice in the sandstone, roofed with undressed sandstone slabs and surmounted by a roughly circular cairn of stones. Bodies apparently contracted.
iii. A small circular grave walled with stone and surmounted by a circular cairn. Bodies apparently contracted.'

Here is an instance, apparently as late as Roman times, of a type of grave the derivation of which from the Middle Nubian type twenty centuries earlier is obvious. But it is to the latter that I wish to direct special attention. For its derivation from the Egyptian mastaba is certain. Yet we find essentially the same type occurring in Algeria (18 and 19) and reproduced far and wide in stone-circles elsewhere. The circular form of the retaining wall of a heap of earth or of a cairn is the natural one. I have explained how in Egypt the retaining wall came to assume an oblong form, and how that form became crystallised, so to speak, when it came to symbolise an Egyptian dwelling. In most countries neither of these reasons for not making a circular wall would obtain. It is probable that in most places other than Egypt the Neolithic grave was not roofed, but filled with earth ; so that there would be no reason, as there was in Egypt, why the cairn should not assume the natural circular form of any pile of earth. In many places the huts also were circular. In an account of the 'rude stone monuments in Algeria' ( 18 , chapter xir) certain circular graves are described near Msila, which seem greatly to have puzzled Dr Randall-MacIver.

I reproduce his diagram (Fig. 4) of one of these stone rings, and it will be seen that they closely resemble the Nubian graves (Fig. 3) even to the offering niche ( $C$ ) or chapel on the south-east side. In reference to this Dr MacIver says 'the niche is the feature that is difficult to explain' (p. 8 I), and Mr Peet (7, p. 94), summarising the account, says 'there seems to be no clue as to the meaning of these circles.' The Nubian graves of the Middle Kingdom certainly supply the clue, and comparison with other Algerian types of degraded mastabas


Fig. 3. Plan of a Nubian grave (circa 2000 b.c.)-after Firth.


Fig. 4. Plan of an Algerian stone circle, with a niche $(C)$ to represent the chapel-after Randall-MacIver.
(19) completes the demonstration of the Egyptian influence these monuments give.

But without going further into this question of stone circles, which presents no difficulty, once the crucial problem, i.e. the origin of the dolmen, is solved, let me return to my main thesis and consider the evolution of the mastaba-type of grave in Egypt and elsewhere.

## The Origin of the Rock-Cut Tomb.

I have already explained, mainly by extracts from Dr Reisner's memoirs, how from the simple trench grave of Predynastic times there was gradually evolved a type
of tomb consisting of (a) a multichambered subterranean grave, to which a stairway gave access; (b) a brickwork superstructure in the shape of four walls enclosing a mass of earth or rubble ; and $(c)$ an enclosure for offerings in front of (i.e. facing the river) the brick mastaba.

As the material prosperity of Egypt rapidly increased and the arts and crafts began to feel the powerful impetus of the invention of metal tools, the process of aggrandisement of the tomb, which we have now followed through the first two dynasties, received a further tremendous stimulus. Bigger, deeper and grander tombs were being made. Before the end of the Second Dynasty the gradual deepening of the burial chamber involved the necessity of cutting into the solid rock, and when the workmen realised that it was possible to overcome this difficulty, a process which the invention of the copper chisel ${ }^{1}$ had now greatly facilitated, a great innovation was made in the tomb-constructor's technique.

I shall quote Mr Mace's ( I 3 ) summary of the evolution of these tombs that led up to this great change.
'The development of these types one from another is perfectly natural and logical. The earliest proto-dynastic grave consisted of a plain rectangular hole in the ground, with a roof of wooden logs or beams. In small shallow graves there was no need of an entrance other than from above, but as the tomb got larger and deeper, and the difficulties of construction increased, the introduction of the stairway became, not merely natural, but inevitable. Meanwhile the roof had been giving cause for thought. Plain wooden beams were obviously in themselves not sufficient to shelter and protect the burial, and we find the wooden roof covered, first probably with mud, next with a thick layer of brickwork, and lastly with a double layer of brick, the upper courses of which were supported by a

[^291]second covering of wooden beams. Yet even this was insufficient. Brickwork, which owes its support entirely to wood is not, at the best of times, a very stable form of construction, and in a country overrun by white ants a worse could not well be imagined. The thickness of the roof added to the weight without increasing the solidity, and made catastrophe doubly certain. It is not surprising then that the corbel vault, discovered possibly by accident, as Dr Reisner suggests, should have been substituted for the clumsy roof of mixed wood and brick. Thus at the end of the second dynasty, our tomb consisted of a large rectangular hole, constructed in the bed-rock, roofed with a corbel vault, and entered by a sloping incline with or without steps. It is at this point that the radical change in tomb construction came in. Hitherto the graves had all been open holes with artificial roofs. From now on the burial chambers of the larger tombs were excavated underneath the bed-rock, the rock itself forming the roof. The transition is quite natural. Why-one may imagine the process of reasoning to have been-why make an open grave, the roofing of which involves considerable labour and ingenuity, when by digging a little deeper a natural roof is provided by the excavation of the chamber itself ? The change was effected, and we get in consequence the third dynasty type of large tomb, a type familiar to us at El Kab, Reqaqnah, and Naga-ed-Dếr, consisting of an underground chamber, communicated with by a long stairway or incline.'

That this technically very difficult operation was not introduced from elsewhere is shown by the fact that the plan of the subterranean chambers cut out of the solid rock in the Third Dynasty tombs (at Sakkara, 15) was clearly and quite definitely inspired by that of the mud-brick tomb. For, as soon as any real facility was acquired of excavating the solid rock, the subterranean grave was cut, not as a mere burial chamber, but as a dwelling of several rooms, with a stairway leading down
to it from the north or east (Sakkara being on the west bank).

At the foot of the stairway was the entrance to the subterranean tomb protected by a large stone portcullis.

In the Second and Third Dynasties the tomb was ' generally a small, rudely cut cave, too small to hold a body laid at full length; but the larger tombs have a series of chambers of a somewhat elaborate plan.
' On passing the portcullis in these we find ourselves in a broad passage from which three or four chambers open on each side.
' A wide doorway at the end leads to a continuation of the passage and this to further chambers in which there is some variety of plan, but two features are constant. To the right, that is to the south-west, is the actual burial chamber in which the corpse is buried (in a very short coffin made in the semblance of a hut) lying sharply contracted with the head north and the face east : in the south-east corner is a feature new in Egyptian tombs, and surely in any other tombs, viz. a dummy latrine; north of this in two cases was a narrow chamber with rude basins carved in the floor, probably meant for a bath-room' ( 15 ).

In this obvious representation of a dwelling house we have another illustration of the same phenomenon noticed in the case of the superstructure.

In the days of the mud-brick tomb the technical difficulty of roofing a large tomb was the motive for subdividing the underground chamber into a series of rooms. By the time of the Third Dynasty, when this primary difficulty was finally overcome by cutting into the solid rock, it had become traditional to look upon this many-roomed subterranean tomb as the dwelling of the deceased ; and, in spite of the enormous labour and expense of conforming in practice to such a belief, the force of tradition was sufficiently strong to impel these people during the Third Dynasty to cut all these useless rooms out of the solid rock.

It is hardly necessary to add that even the conservatism of religious and funerary traditions was impotent to maintain such an expensive practice, except in a modified form in the case of the royal Pyramids, for more than a few years.

In the time of the Third Dynasty, however, we find that the conception of the tomb as a dwelling had become symbolised in the superstructure (mastaba), in the subterranean chambers and also in the coffin: but in all of these instances the conception was not primary. Each of these three things was evolved quite independently of the house-idea: but having, more or less accidentally, assumed a certain likeness to a house the ever present idea of the grave as a dwelling for the deceased became materialised in the house-like structures. But whereas the more ancient coffin and mastaba simulated the simple prehistoric hut, the later (Third Dynasty) application of the house-idea to the subterranean tomb made of it a contemporary house.

At this time (early part of the Third Dynasty), although the subterranean burial chamber was often carved out of the solid rock, the superstructure was still constructed of mud-brick. But eventually the mud-brick mastaba was replaced by a stone building. At first the mud-brick model was more or less slavishly followed in the stonework, but the stairway rapidly atrophied and gave place to a simple shaft ; and the many-chambered subterranean house soon dwindled into a small burial chamber.

In the course of this process of evolution of the tombs of the Old Kingdom there are certain phases which it is necessary to emphasize.

In the first place it is definitely established that the rock-cut tomb was evolved before the stone mastaba, and that the cutting out of such a tomb certainly involved the use of metal tools. In Egypt such a mode of burial was adopted, as Reisner (9) and Mace (13) have so clearly
demonstrated, to overcome the technical difficulties of roof construction in large tombs, which had given the early Egyptian builder so much trouble.

In other countries where the rock-cut sepulchre came into vogue there was no such reason for adopting this type of tomb; and the question naturally presents itself, why did these other peoples adopt a practice which demanded immense labour and served no obvious useful purpose? That the difficulties of the tasks involved in the change of custom appealed forcibly to the Æneolithic people of Sicily and Italy is apparent from the fact that they so often used natural caves, with or without alteration, and that, when they did overcome the enormous difficulties of cutting such tombs, they usually buried large numbers of corpses in each of them.

Mr Peet gives a good summary (8) of the evidence relating to the inauguration of the practice of rock-tomb burial in Sicily. 'In the eneolithic period the old neolithic rite of inhumation in trench-graves still prevailed in many parts of Italy from Brescia to Samnium' (p. 193). The bodies buried in these graves were the characteristic small dolichocephalic people, whose remains present the closest possible resemblance to those of the ProtoEgyptians. They were buried in 'trenches, usually ovoid in shape, hollowed in the open earth to a depth of from 0.60 to 1.00 metre' (p. 187) : the body was flexed and usually placed upon the left side, with the head toward the north-west or north-north-west ${ }^{1}$, and the face was turned in a direction between north and east. In some cases both hands were placed at the head; but most frequently 'the right hand lies in front of the pelvis, often grasping a dagger, while the left is either up to the head or stretched along the body' (pp. I 87 et seq.). The legs are sometimes fully stretched. There are indications that

[^292]the bodies were loosely wrapped in linen and that sometimes the graves were roofed with wood (p. 190). In addition to the usual orderly arrangement of pottery and flint implements, copper axes were occasionally found in these graves (p. 188).

If this account of the grave and the position of the body be compared with what has been found in Predynastic cemeteries in Egypt (9, pp. 87, 88 and 127 ; and 12, p. 315) it must be apparent to every unbiased observer that the Æneolithic culture is certainly related genetically to that of Predynastic Egypt.

It is altogether inconceivable that two kindred Mediterranean people should have adopted such precisely identical burial customs quite independently the one of the other. The only noteworthy features that enable one to discriminate between the Italian Æneolithic and the Late Predynastic Egyptian graves or their contents is the pottery and the northerly orientation of the head of the corpse.

In Egypt Dr Reisner tells us the orientation of the body towards the south was not a hard and fast rule, and it changed to the north in the Fourth Dynasty (op. cit. p. 90).

I have emphasized this racial and cultural affinity between Egypt and Italy (at the moment when each country was in the transition stage to the Age of Metals), because I have been attacked with considerable vigour by certain archaeologists for assuming this now widely recognised kinship of race and customs of the various Neolithic populations around the Mediterranean. I have also called specific attention to the dissimilarity of the pottery associated with these similar graves and human remains in the two countries respectively, because certain other critics have withheld their support to my hypothesis in explanation of megaliths for no other reason than that Egyptian pottery is not found in association with typical dolmens. One might with equal justice deny the British
nationality of some of the present dwellers in Egypt, because they use Egyptian goulahs for water-bottles!

Italy, then, was still clinging to the Neolithic burial practices in the Æneolithic period, when copper axes were being buried with the dead. But, to quote Mr Peet again, this ' was not the only type of grave used in this period, for we have in Central Italy, at Sgurgola, Cantalupo Mandela and Camerata, examples of rock-hewn sepulchres. These were apparently unknown to the neolithic people in Italy, and form one of the innovations of the eneolithic age' (p. 193).

It is a very significant fact that this phase of Æneolithic culture, so rarely found in Italy, should be 'so well represented in the islands, notably Sicily, Sardinia, Pianosa and Pantellaria' ( $8, \mathrm{p} .200$ ), i.e. on the African side or in the great ocean highway of the Mediterranean.

It is also important to note that Mr Peet considers it 'impossible to decide whether this Sicilian civilization ought to be included under the term megalithic' ( 7 , p. 8i). It is to be noted, however, that most of the rock-cut tombs, though not all, were hewn horizontally or obliquely in the vertical face of the rock, and not vertically from above; that to save labour, natural caves were often made use of, in many cases after being enlarged and shaped for the purposes of a tomb; and that once the enormous labour of cutting out these chambers with the crudest of tools was accomplished, most of them were used not simply for one corpse (when such tombs were first invented, though not later), as in Egypt, but for great numbers of bodies (8, p. 2 I I).
' No rock-sepulchre or megalithic monument in Italy can be shown to be neolithic, and all those which have yielded any evidence have proved to be at least as late as the eneolithic period ' (8, pp. 272 and 273).

In his later work (7, p. 79), Mr Peet says, 'It was only at the beginning of the metal age that the rockhewn sepulchre began to appear in Sicily.' 'It is very

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often a concomitant of the megalithic monument, and in many cases is proved to be the work of the same people.'

It was during the eneolithic and bronze ages that the two types were most frequently in use. The rocksepulchres of Latium and Pianosa are mainly of eneolithic date, while those of Sicily belong partly to the eneolithic, partly to the bronze age, and the datable examples of South Italy belong to the bronze age alone' (8, p. 273).
'The sesi of Pantellaria belong to a very early phase of the age of metals, probably corresponding to the eneolithic period in Italy.... The Sardinian monuments seem to belong mainly to the bronze age' (p. 274).
' We have a strong probability that the rock-tombs do not mark the advent of a new people....If this is the case, we have to ask what was the reason for the adoption of the rock-grave and the dolmen in the eneolithic period. And here I cannot quite agree with Pigorini's method of viewing the problem. He suggests that the absence of dolmens in other parts of Italy proves, not the absence of the people and civilization of which the dolmens are a mark, but the absence of the necessary material for building such monuments. Surely if this is the case, it is incredible that dolmens should only occur in one small corner of the country. A much more natural inference is that the people in other parts of Italy had never heard of a dolmen. This particular corner, the beel of Italy, from its position may well bave become subject to the influence of some such movement from Africa to Europe as that by which Montelius explains the dolmens of West Europe and Scandinavia ${ }^{1}$. It is not necessary that the people who built these dolmens in Terra d' Otranto should have been of different race from the inhabitants of the rest of Italy, though on the other hand we cannot prove that they were the same, as we have none of their remains.'
'The case of the rock-sepulchre is similar. It never

[^293]occurs in North Italy-not, surely, because rock-surfaces were lacking, but because that particular method of burial was not known there' (8, p. 275).
' When, however, we find both kinds of tomb confined to South Italy and the islands, we may naturally expect that either the custom or the actual builders came by sea' (p. 276).

I have quoted these passages verbatim because the links in the chain of megalithic stations provided by Italy and the islands are of crucial importance in my argument. Moreover in Sicily and Southern Italy there are numerous examples of rock-cut sepulchres, but only a few, and those somewhat doubtful, examples of megalithic monuments. It reminds one of the end of the Third Dynasty in Egypt when there were numerous rock-tombs, but chiefly mud-brick superstructures.

If it is so clear that this practice new to Sicily and Southern Italy at the dawn of the Age of Metals certainly reached these places via the Mediterranean, is it a mere coincidence that a neighbouring country across the Mediterranean had acquired vast skill in making such tombs, which she had invented for her own particular and quite special needs, and as the culmination of several centuries of transformation of her burial customs? We know that the Egyptians began to make such tombs towards the close of the Second Dynasty ; we can appreciate the nature of the circumstances that impelled them to engage in an undertaking of such enormous technical difficulty: that the rock-cut tombs in Egypt were certainly a local invention is clear from the fact that they were so definitely an imitation in stone of the multichambered brick-lined graves of the First and Second Dynasties.

It was just before the Egyptians invented this practice -though there are very definite reasons for believing that there was no connexion whatever between the two eventsthat a definite alien element manifests itself in Lower Egypt. Similar aliens make their appearance in Sicily
and Italy in the Æneolithic Age $\left(20^{1}\right)$. Here then is evidence of racial movements at this time: it is proved that Sicily and Southern Italy adopted the new practice from abroad: I have called attention here to the proof of the invention of this practice in Egypt. Thus the proof is definite that this practice came from Egypt.

Mr Peet (7) notes the fact that rock-hewn tombs occur 'only in the vicinity of the Mediterranean,' i.e. not in the whole megalithic area. It is also highly probable that they were made only after the introduction of the use of metal tools. But there is one significant fact concerning this type of tomb that obviously troubled Mr Peet ( 7 , p. I 55), namely, that such rock-cut sepulchres occur in places which he excludes from the megalithic area, i.e. Egypt, Cyprus and Crete. This fact is exceedingly awkward for him, because be has repeatedly insisted on the intimate genetic relationship. between rockcut tombs and megalithic architecture. For if Egypt, Cyprus and Crete definitely belong to the group of rock-tomb-using people, how can Mr Peet logically exclude these countries from his megalithic area? He says 'the question is difficult to answer' (p. I 55), but if he will only open his eyes to the obvious meaning of the Egyptian facts, the difficulty vanishes.

He goes on to say:--'One thing alone is clear, that in certain places, such as Malta and Sardinia, the megalithic people were not averse to reproducing in the solid rock the forms which they more usually erected with large stones above ground' (p. I 55). [For further corroborative details see 7, p. IO9.]

In Egypt we have seen that the superficial tomb became multichambered to overcome the difficulties of roofing it; but when these difficulties were efficiently circumvented by cutting the whole tomb in the solid rock, the Egyptians continued (for a time) to make it

[^294]many-chambered, regarding it as a house of many rooms.

In discussing the common arrangement of the early Egyptian tomb with the subterranean grave and the superstructure or chapel of offerings above ground, Reisner remarks ( 9 , footnote to p. 5) :-'the exception is the chambered tomb, beginning in the Fourth Dynasty. In this type, the solid rock or gravel knoll must be thought of as the superstructure; and the offering-chamber as well as the burial chamber is hollowed out of the rock or of the hard gravel. The front is levelled off to represent the façade of an ordinary mastaba; and the interior, sometimes even to the roofing logs, is cut in imitation of mud-brick and stone constructions.' Precisely the same type occurs also in Sicily ( 7, p. $7^{8}$ ). It may be urged that the vertically-cut shaft of the Egyptian tomb cannot be looked upon as the prototype of the horizontally-cut Sardinian tomb. But Mr Peet disposes of this difficulty when he states that 'two types were common, the chamber cut in the vertical face of rock and thus entered from the side, sometimes by a horizontal passage, and the chamber cut underground and entered from a vertical or sloping shaft placed not directly over the chamber, but immediately to one side of it. It is unlikely that these two types have a separate origin' (p. 154). So also in Egypt we find all varieties of rock-cut tombs.

In the concluding pages of his book, Mr Peet (7) deliberately shirks the conclusion to which all the facts and arguments of the whole work point so definitely and accurately, namely, that the Mediterranean people adopted the practice of burial in rock-cut sepulchres from the Egyptians.

No one who is familiar with the facts set forth in Dr Reisner's (9) and Mr Mace's (13) reports on the Naga-ed-Dêr cemeteries and with the results of Mr Quibell's recent work at Sakkara ( 15 ), can logically refuse to admit that the truly Gordian knot into which Mr Peet's argument has become entangled in pages $154-157$ of
his book (7) can be cut only by invoking the use of the copper chisel of the Egyptian stonemason of the Second Dynasty.

The question naturally presents itself, why was the custom of burial in rock-cut tombs confined to the Mediterranean area? Why did not the other megalith-builders also construct such graves? It is quite clear that they did not do so because they lacked the technical skill to cut stone, either to carve out chambers in the rock or to work stone for their megalithic buildings. They were lacking also in the skill to work metals, and remained in the Stone Age long after the Mediterranean people were using copper tools. Beyond the Mediterranean area megalithic monuments were being built of unhewn blocks of stone long after the coming of the Age of Metals in the Mediterranean, not perhaps because the builders were ignorant of the value of metal tools, but because they could not make them themselves and were unable to obtain them otherwise. Many peoples at the present day fully appreciate the value of guns and rifles, and would barter all that they possess to get them. Yet they have to do without them because they cannot make them or obtain them in any other way.

## The Stone Mastaba and the Dolmen.

In the preceding pages I have sketched the evolution of the mud-brick mastaba and mentioned that in the age of the Pyramid-builders the brick construction began to be imitated in stone.

The Pyramid itself may be regarded as a divergent development of the First Dynasty grave, in which the sloping passage on the northern aspect is retained (the great development of the temple on the river side prevented the retention of the stairway or incline of the Proto-Dynastic grave in the alternative, i.e. eastern, side), as well as the many chambers in the subterranean grave. The Pyramid
itself is a monstrously overgrown but elaborately built cairn. According to Professor Breasted (2I), this form of royal funerary monument came to have a special significance attached to it. 'The Fifth Dynasty was devoted to the service of the Sun-god, and each king built a vast sanctuary for his worship in connection with the royal residence, on the margin of the western desert. Such a sanctuary possessed no adytum, or holy of holies, but in its place there rose a massive masonry obelisk towering to the sky. Like all obelisks, it was surmounted by a pyramid, which formed the apex. The pyramid was, as we shall see, the chief symbol of the Sun-god' (2I, p. I5).

I do not propose to discuss the influence of the Egyptian Pyramids and Obelisks as models for widespread imitation, for it can easily be detected in numberless monuments in the megalithic domain. I prefer rather to pass on to the consideration of the less obvious influence of the mastaba.

I have already called attention to the fact that the idea of the Old Kingdom (circa 3000 b.c.) mastaba in Egypt prompted the construction in Nubia during the Middle Kingdom (circa 2000 b.c.) of a type of stone circle, which is identical in all essential respects with Algerian monuments.

But the later types of more complex Egyptian mastabas exerted a definite influence, which found expression in many types of dolmens in North Africa, in the Sardinian Giants' tombs, the French allées couvertes, and many other varieties of tombs elsewhere.

Before the brick mastaba of the Second and Third Dynasties gave place to the stone construction, the deepening of the burial shaft, necessarily involving an obliquity more and more nearly vertical, led to the abolition of the stairway. As the shaft thus became more vertical (Figures 5 and 6) it shifted, so to speak, into the mastaba itself. (Compare Figures 3 and 5.) The courtyard ( $C$ ) in front

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of the mastaba $(M)$ now becomes more definitely walled in so that a doorway of entrance is rendered necessary, and the forecourt itself becomes worthier of the name of 'chapel' or 'temple.' It often becomes involved, as it were, in the structure of the mastaba itself, which,


Fig. 5. Diagram representing in section the essential features of the fully developed stone mastaba.


Fig. 6. Plan of same.
to change the metaphor, grows around the chapel and so forms solid masonry walls for it. Inside this chapel, on the eastern face of the mastaba proper, near the northern corner, is sometimes a 'false door' or stela, and near the south corner a larger and more carefully made door. At the foot of the false door a table of offerings $(T)$ is often
placed. Somewhere between the chapel $(G)$ and the shaft $(P)$ leading to the burial chamber $(G)$ there is often hidden in the masonry of the mastaba a narrow chamber $(S)$, built of large slabs of stone and roofed with similar material ( $R$ ). It is usually known by the Arabic term serdab. It contains a statue of the deceased, sometimes also of his wife and family and servants. As the body itself is hidden away at the bottom of the deep shaft far away from the chapel, the life-like statue of the deceased placed in the serdab represents him above ground and receives the offerings brought to the chapel. For this purpose the serdab is often connected with the chapel by a narrow slit, which for the sake of convenience of reference I shall call the serdab-hole $(H)$.

Concerning this statue, Professor Breasted (2 I, p. 69) says: 'it was evidently supposed that this portrait statue might serve as a body for the disembodied dead, who might thus return to enjoy a semblance at least of bodily presence in the temple, or again in the same way return to the tomb-chapel, where he might find other representations of his body in the secret chamber close by the chapel.'

It is important to remember that offering-niches and even slits in the mastaba-wall (see Flinders Petrie, ' Man,' October, I9I3, Plate K) were made before the introduction of the serdab; and that the latter originally did not contain a statue, but was merely a niche or false door 'withdrawn into the body of the mastaba and protected by a door' (Quibell, I 5).

In the chapel itself the deceased was represented in painted bas-reliefs on each side of the false door, which was in a sense symbolic of the means of communication between the living and the dead.

Very great variations in the size, arrangement and complexity of such mastabas occurred. I have mentioned only the outstanding features.

When such a monument as this came to be copied by
people unskilled in the cutting and working of stone, a variety of curious degradations of this mastaba construction results.

I shall consider only two of these in detail-the Sardinian Giant's tomb and the allée couverte, but incidentally must refer to other types of monuments elsewhere.

It must be remembered that even in Egypt itself the huge and highly worked mastabas, which not unnaturally have almost monopolized the attention of most of those who have written on the subject, represent the finished products of the country which at the beginning of the third millennium B.C., when these monuments were made, commanded not only the highest technical skill in this class of work, but also the great material resources of an abounding prosperity, which gave the aristocracy the command of skilled labour. But for every one of these great tombs there were thousands of smaller graves, without any chapel of offerings, or statue or deep burial shaft. It is these smaller tombs that we must keep in mind, the sort of grave which might have been built for an Egyptian sailor, trader, or perhaps even a wealthy merchant, dying in a foreign land, where it would become a permanent object-lesson in Egyptian tomb construction.

But in directing our attention chiefly to the small tombs we cannot wholly lose sight of the great, for imitation of big and showy things has always been a failing of human nature. As Dr Reisner has clearly shown in the case of Proto-Dynastic Egypt, 'the main thread of development' in tomb construction is found in the large structures, for 'they are the tombs of those who most desire security and ostentation, and are best able to secure the technical means of obtaining their desires.' But 'when the small tombs are taken into consideration we must remember that they will, as far as possible, utilise the technical successes of the large tombs and copy their ostentation' ( 9, p. II).

The man of moderate means would imitate such features of the Memphite noble's tomb as he could afford. The burial shaft would be shallower, reaching in some cases not even to the solid rock. If in a foreign land he perhaps could not secure skilled labour to construct a proper shaft. The size of the mastaba itself would no doubt be also conditioned by his means. Probably-and this would certainly apply in places outside Egypt where skilled sculptors did not exist at this time-he could not obtain a portrait statue, so that there would be no real use for a serdab. But the ideas


Fig. 7. A diagram representing in section the hypothetical first stage of degradation of the mastaba.
that had become intimately associated with the serdab, as the place inhabited by the spirit of the dead manin other words the part of the tomb that kept 'him' from annoying the living-have appealed strongly to the human imagination in all ages. The mere inability to provide a statue could not be regarded as a sufficient reason for omitting the dwelling for the dead man's spirit. The serdab would be preserved and made stronger and bigger, so as to resist the forces of destruction and remain as the 'eternal house,' to use the ancient Egyptian expression, of the deceased.

And now that no burial shaft was made the grave containing the corpse would be in the floor of this overgrown serdab (Figures 7 and 8).

I do not think there can be any doubt that, by a process such as I have roughly sketched and in response to such dominating ideas as I have mentioned, the mastaba made for an Egyptian by alien hands in a foreign land would assume some such form as I have represented in section and plan respectively in Figures 7 and 8.

The transition from


Fig. 8. Plan of the type shown in Fig. 7. the real mastaba to this degraded imitation will be rendered more intelligible if it be realised that in Egypt also (from the time of the Fourth Dynasty onward), just as in Sicily, Malta, Sardinia and elsewhere (7), rock-cut tombs-not merely burial chambers, but all parts of the funerary monument-were frequently made, and that each type of tomb influenced the construction of the other. The two types of grave 'travelled together' in the Mediterranean and the features of the two were thus even more intimately mingled.

In the rock-cut tomb the grave is made in the floor of a burial chamber (i.e. when the burial chamber is not also the grave), which is usually in linear series with the vestibule (and the antechamber, when there is one). The application of this same idea brings us to the stage where the grave $(P)$ of an artificially built straight corridor (Fig. 7) opens into a burial chamber, which may or may not be separated from the serdab $(S)$.

The rough diagrams (Figures 5, 6, 7 and 8) are intended merely to illustrate the manner in which the mastaba (Figures 5 and 6) becomes converted into the dolmen (Figures 7 and 8), with a vestibule or chapel of offerings $(C)$ roughly facing east, the 'holed-stone'
$(H)$ in front of the serdab-chamber $(S)$, in which is the grave $(P)$. This overgrown serdab, roofed by great slabs of stone $(R)$, is still surrounded by the pile of earth $(M)$, supported by the retaining wall $(W)$.

In the Egyptian mastaba-chapel (Figures 5 and 6, C) there was often a table for offerings $(\mathcal{T})$, in front of a great stone false-door or stela.

In the degraded mastaba (Figure 8) one great slab $(H)$ would usually mark the subdivision between vestibule (chapel) and burial chamber. It would be both the holedstone and the stela.


Figs. 9 and 10. The plan and transverse section (at the place marked by the arrow) of a Sardinian 'Giant's Tomb'-after Baux and Gouin.

Such a tomb as I have been describing is not an imaginary one. It is actually seen in the Sardinian ' Giants' Tombs.' These structures apparently present a series of variations in their plans; so I have taken two extreme types (which are linked by intermediate types), one, Figures 9 and 10 , taken from a memoir by Mm . Baux and Gouin (22, Figs. II5 and in6, pp. 200 and 201), the other, Figure I I, taken from Mr Peet's book (7) (after Dr Mackenzie). The only real difference between them is the amount of earth piled up to form the mound, $M$. This and its retaining wall, $W$, being the least essential parts of the structure, are the most variable.

If I understand aright the account (23, pp. 344 and 345) of the solitary monument of this type found in Ireland (at Annaclochmullin in Armagh) the retaining wall ( $W$ ) is the first feature to disappear as the type becomes simplified.

The combined serdab-tomb chamber ( $S$ and $P$ ) agrees with the condition represented in Figures 7 and 8: the holed-stone $(H)$ is also present, and it is very instructive to note that it is a carefully sculptured stela (Figure 1 2, after Lewis, 23, p. 345).


Fig. 11. Plan of another Sardinian 'Giant's Tomb,' with greatly reduced mound ( $M$ )-after Mackenzie.


Fig. 12. The chapel of offerings of a Sardinian 'Giant's Tomb,' showing the sculptured holed stela-after Lewis.

The chapel of offerings $(C)$ has been so made as to display as extensive a façade as possible, thus exemplifying the desire for ostentation.

I have chosen for the purpose of illustrating my general principle a type of grave which has always been regarded as bizarre, inexplicable and of purely local development. Yet all the peculiarities of grave construction which the Giants' tombs exemplify are precisely the essential features of the Egyptian stone mastaba.

Moreover this type of grave made its appearance in Sardinia at the same time as the rock-cut tomb, and there is quite conclusive evidence ( $7, \mathrm{p} .88$ ) that both kinds of tomb were made by the same people. When the rectangular serdab-tomb chamber was not roofed with stone
slabs, corbel vaulting-another Egyptian invention-was employed.

Many varieties of analogously degraded Egyptian mastabas occur also in Algeria. Limitations of space will restrict my reference to one case from Gebel Merah, the plan of which is shown in Figure 13, which is taken from M. Cartailhac's Histoire (19, p. 369).


Fig. i3. Plan of an Algerian mastaba-like superstructure.
This is a regular stone mastaba, in which the burial chamber communicates with the entrance to the tomb in the place, which in my scheme (Figure 8) I regarded as homologous with the serdab. As in so many of the Egyptian mastabas, the whole tomb is surrounded by an enclosure. This is not the retaining wall of the mastaba, but represents the enclosure of the Proto-Egyptian mastabas, described by Dr Reisner and Mr Mace. In such cases there is no chapel other than the space thus enclosed.

In other examples from Algeria the enclosure is square, as in the Egyptian cases ; and every transitional form is found, showing the disappearance of the wall $W$ and the transformation of the chamber $P S$ into the typical megalithic dolmen.

If further evidence is needed to show that such dolmens were regarded in the same way as the Egyptian mastabas there is a curious geographical corroboration provided by a cemetery in Tunis.

I have already called attention to the fact that the orientation of the Proto-Egyptian mastabas was determined entirely by their relation to the river Nile. 'All the mortuary arrangements were chiefly Osirian' (21, p. 62). But from the time of the ascendency of the sun-god, $R a$, in the Pyramid Age, it became customary to build tombs on the west bank of the river (and not indifferently on either bank as before) ; and such tombs preserved the usual orientation distinctive of the west bank, i.e. their façade faced east.

In the Enfida district of Tunis, near the Gulf of Hammamet, there are about eight hundred small dolmens (24), all situated upon the left bank of the Abd-elGoui river. They all conform to the same type. A long capstone (compare $R$, Fig. 7) rests upon three vertical slabs (west, north and south) so arranged as to form a rectangular box (compare Fig. 8, supposing $W, M, C$ and $H$, the variable features, to be removed) opening toward the east or south-east. As in the case of the Algerian dolmen (Fig. 13) these Tunisian examples were sometimes enclosed within a circular courtyard.

If my suggestion of regarding these dolmens as degraded (or rough copies of the essential features of) Egyptian mastabas be accepted it will naturally be asked, can it also be used to throw any light upon the peculiar types of dolmens, such for instance as the allée couverte, which is so typically represented in France?

Our knowledge of this type of dolmen has been recently summarised by Mr A. L. Lewis (23). The allée couverte is nothing else than a straightforward exemplification of my hypothetical degraded mastaba (Figures 7 and 8), with the variable and inconstant retaining wall $W$ (and mound $M$ in some cases) removed.

It presents in quite a typical manner the chapel, $C$, the holed-stone, $H$, leading to the serdab-grave, $S$, which may in some examples be subdivided into its two constituent parts representing the serdab and the burial chamber.

As a striking proof of the correctness of this homology there is sometimes found in the chapel or portico (upon the wall alongside the holed-stone, which, as the Sardinian tombs have shown, is also the stela or false-door) crude attempts to represent a human figure. A collection of such representations made by M. Salomon Reinach will be found reproduced by Mr A. L. Lewis (23, p. 338), who refers to them as 'emblems of the goddess' (p. 340). These figures are sometimes male and sometimes female and they occur in the portico of the allée couverte in precisely the same relation to the stela (holed-stone) as the representations of the deceased (receiving offerings) occupy in the temple of the Egyptian mastaba. There is no doubt whatever that Mr Peet is right when he says, in reference to the suggestion that these figures represent 'deities,' ' it is quite as likely, if not more so, that they represent the deceased ' (7, p. I 39).

Since I have developed the foregoing hypothesis in explanation of these varieties of megalithic monuments I have found a striking confirmation of it in a summary of a book written by Baron J. de Baye (25), from which I have copied (Fig. 14) the 'plan géométrique d'une grotte du Courjonnet' that illustrates the summary (p. 29I). The interest of this sepulchre (remembering the fact that many of these rock-cut tombs are close imitations of tombs built above ground ${ }^{1}$ ) is that between the vestibule or chapel $(C)$ and the tomb-chamber $(P)$, there is a small intermediate chamber ( $S$ ), which Baron de Baye calls the 'antigrotte.' That the latter really

[^295]represents the serdab or statue-chamber is shown by three crude representations of the human figure carved upon the walls at $a, b$ and $b$. Of these three figures in the serdab Baron de Baye regards only one as human ( $a$, obviously intended to represent a woman, like $a$ in the vestibule, the usual place for the wall picture in the Egyptian tomb), but the two pictures (labelled $b b$ ) are certainly intended to represent human figures, in spite of the fact that the stone axe represented elsewhere in the burial chamber is also shown in $b b$ upon the front of the human figure.

I interpret this as implying that the serdab contains the representatives of three figures (a woman's and two


Fig. 14. Plan of the 'grotte du Courjonnet'-after de Baye.
men's) which correspond to the statues in an Egyptian mastaba, and in the chapel $C$ there is the usual bas-relief at $a$, in this case representing the deceased woman, whose tomb this was,

In the holed dolmens that occur so widely spread in Europe and Asia (as far east as India) we have a simplification of the allée couverte, usually a relatively small affair with no well-defined portico, so that the holed-stone appears to form one of the four walls of the dolmen. If my arguments are valid we must regard the dolmen not as the whole of the Egyptian mastaba-tomb but as its core, so to speak, greatly overgrown and stripped of all the unessential parts. The parts which are constantly
represented in every dolmen represent the serdab and the burial chamber, often merged into one. The 'holedstone' found in dolmens so widely separated as India, the Caucasus and various parts of western Europe is a striking witness to the reality of the serdab-conception in the dolmen; and the great masses of stone that go to the making of the dolmen represent not the visible parts of the mastaba but the greatly overgrown lining slabs of the serdab.

It will no doubt be asked why the serdab should thus survive, stripped so to speak of all its surroundings, and develop such uncouth proportions?

Let me remind my readers of the original significance of the serdab and the superstitions that the ideas associated with the serdab engendered.

Sir Gaston Maspero (26, p. 257) says ' The statues [in the serdab] were not [regarded as] mere images, devoid of consciousness. Just as the double of a god could be linked to an idol in the temple sanctuary in order to transform it into a prophetic being, capable of speech and movement, so when the double of a man was attached to the effigy of his earthly body, a real living person was created and was introduced into the tomb.' The account goes on to tell how the belief grew up that this spirit of the dead man residing in the serdab wrought injury on the living.

The dolmen was thus the dwelling of the dead man's spirit to which offerings could be made before the holedstone. No doubt the massiveness of the stones of which it came to be constructed was related in some way to the idea of making this dwelling strong so as to last long and prevent the discomfiture to the living of such disturbing elements wandering abroad.

Only one feature remains to be considered of all those which Mr Peet enumerates as distinctive of the megalithic type of architecture (7, p. 144).

I have explained how all the other distinctive criteria enumerated by him may have been derived from the

Egyptian mastaba-tomb-(I) the use of large orthostatic slabs, (2) the roof of horizontal slabs or corbelled construction, (3) underground chambers in the rock, (4) widespread occurrence of structures with a hole in one of their walls, (5) the presence of a court. The other feature that he mentions is 'blocks with cup-markings,' in reference to which he makes the following remarks ( $7, \mathrm{p} .127$ ) :
' Attention has frequently been drawn to curious round pits so often found on the stones of dolmens and usually known as cup-markings. They vary in diameter from about two to four inches and are occasionally connected by a series of narrow grooves in the stone. They occur nearly always on the upper surface of the cover-slab, very rarely on its under surface or on the side-walls.' 'They are found on dolmens and corridor tombs in Palestine, North Africa, Corsica, France, Germany, Scandinavia and Great Britain ' (7, p. I 28).
' There is no clue to the purpose of these pits.'
Is there any clue in the Egyptian mastaba, of which the corridor-tomb and dolmen are the degraded imitations?

I have a suggestion to make, which I submit with all reserve as a wholly tentative proposition.

In his account of the mud-brick mastabas of the Second and Third Dynasties at Sakkara Mr Quibell (15) states: 'the space inside the four walls was generally filled with gravel and with stone chip from the subterranean chamber, but in some of the larger tombs the filling contained also a great number of coarse vases, many crushed by the overlying gravel, but many also unbroken. These we thought at first might have been the jars used by the workmen for food, but some of them were of unbaked clay and could hardly have been used at all. In other cases too these vases had been placed in orderly rows ; in one the whole desert floor between the walls of the tomb and the edge of the shaft had been covered with these vases with clods of baked clay placed between them.'
' In the case which I am now showing you there can be little doubt. Below the filling was a shallow trench and inside it two rows of jars made of unbaked clay containing a brown organic powder, probably decayed corn. From the trench a tiny tunnel leads to the mouth of the shaft. This surely was a secret supply of food for the dead man.'

In his account of the later mastabas Sir Gaston Maspero states that the top of the filling of the mastaba 'is scattered over with terra cotta vases, nearly buried in the loose rubbish' (27). It is a well-known fact that in most of the offering-chapels enormous numbers of very small roughly made dishes are found which had been brought to the chapel as symbols of offerings.

I put it forward as a tentative suggestion, which I make in the light of these quotations from Sir Gaston Maspero's and Mr Quibell's writings, that the cup-markings found on the upper surfaces of the roofing stones of dolmens may be symbolic of food-offerings, or the cups for such offerings.

The fact that sometimes they are represented on the door-jambs and walls finds a parallel in the Egyptian mastaba-chapel, where bas-relief representations of foodofferings are customary.

Foreign craftsmen who were not sufficiently skilled to carve representations of the actual food may have adopted the little saucer-like vessels as symbols of food-offerings and made these cup-markings in the temple of offerings, where the more capable Egyptian workman carved and painted pictures of the food itself.

Thus we find in the Old Kingdom mastabas not only the prototype of the outstanding features of the allée couverte and all the other types of dolmen, but also the suggestion of an explanation of the most obscure and cryptic details of their structure.

Mr Peet believes (i, p. 256) that the 'megalithic monuments represent an entirely different tradition and
type of architecture from any that ever existed in Egypt.' In the foregoing pages I have shown that every one of Mr Peet's criteria are realised in Egyptian monuments ; and I have emphasized the fact that in demonstrating the close connexion between the rock-cut tomb and the megalithic building he was forging the very strongest link between Egypt and the megalith-builders, because it was unquestionably the home of the rock-cut sepulchre. He was conscious that he was in difficulties, though he shit his eyes to the obvious way out of them. Instead he throws discretion to the winds and becomes quite reckless in his choice of arguments with which to attack my thesis. For instance, he states that 'the very fact that megalithic architecture was in the main funerary is an argument against ascribing it to Egyptian influence' (p. 262). Surely this is the very height of absurdity, when it is recalled that the Egyptian monuments we have been discussing were put to precisely the same uses as the megalithic monuments !

What he had in his mind is indicated as he proceeds to develop his argument that 'it is unlikely that mere Egyptian influence could have caused such a change in the burial custom of these peoples, and it is, if possible, the more unlikely from the fact that the new type of tomb was far more difficult to construct than the old, and when made was far less secure as an abode of the dead. The very fact of the use of such huge blocks of stone, when smaller ones would have given an equally good result with less labour, is in itself a proof that the megalithic system of building was original and self-created, and not produced by influence from elsewhere' (p. 262).

But it is an essential part of Mr Peet's doctrine that the megalithic culture did spread from some common centre, and if this argument has any cogency it will invalidate his conclusions to at least as great an extent as it affects mine. But if he escapes from this dilemma by saying that he believes that a race of megalith-builders
roamed as missionaries about the earth from Spain to Japan, why did not these people who could command the labour to build such vast memorials disturb the even flow of cultural development in each territory? If the conventions of funerary architecture were so rigid and unyielding, why in such closely approximated areas as Sicily, Italy, Malta, Pantellaria, Corsica, Sardinia, and the rest did the megalithic monuments assume such a variety of forms?

It is important in this connexion, as well as from its bearing upon the attitude of mind of Mr Peet and most of those who talk of conservatism in religious and funerary observances, to remember Reisner's observations (op. cit., p. if). 'All that is concerned with any religious or funerary practice is protected by a certain conservatism; and this is especially true of those things which are considered essential to the validity of the practice in question. When therefore we find a thing like the substructure of a tomb preserving its function of protecting the dead and the funerary furniture and yet changing its construction rapidly and radically, it is manifest that the construction of the substructure was not protected by any religious consideration. Its development must therefore in the first place have been based upon practical or technical grounds and in the second place on imitation.'

Surely there can be no more striking illustrations of the divorce between the traditionally essential and the locally fashionable parts respectively of the funerary observances than are afforded by the megalithic monuments themselves. For when the people who practised cremation intruded into the megalithic domain they clung to what they regarded as the essential part of their practicethe incineration of the corpse, but conformed to local fashion by building megalithic monuments.

With reference to the use of great blocks of stone for funerary buildings in Egypt I should like to quote the criticism of another archaeologist (Mr Cecil M.

Firth), because, while heartily disagreeing with my views, his strongest argument, intended to be wholly destructive, seems to me to be a very useful support of my contention. Mr Firth believes that in Egypt (a) the use of large stone blocks was merely a development of the use of mudbricks and (b) large blocks were employed simply because it was a saving of labour to quarry huge blocks. But surely this is an explanation of why large blocks were used! It gives for the first time some valid reason why the megalith-builders should have adopted this 'far more difficult' method, to use Mr Peet's phrase, and 'used huge blocks of stone, when smaller ones would have given an equally good result with less labour': they did so because they were imitating the Egyptian practice. They had no idea why the Egyptians should have used big blocks; but, as Mr Peet reminds us, there is a strong conservatism in funerary custom, and this led them to imitate as far as they could the Egyptian method.

The main burden of criticism that has been invariably levelled at my hypothesis whenever I have discussed my views in public or in private is uttered also by Peet (op. cit., p. 26i), and labelled the weakest part of my argument, in these words: 'It is most improbable that if these nations were in close enough contact with Egypt to imitate her great stone buildings, they would have failed to learn from her the use of copper, a thing of far greater value.'

But there is a vast difference between the adoption of a religious belief (and the crude practice of the observances of that belief) and the acquisition of the metallurgical skill of the instrument-maker and the craft of the stonemason. There was no export trade in chisels from Egypt to the western Mediterranean, and skilled instrument-makers and stonemasons did not man the ships that sailed the sea. But any man who could command the labour could have a dolmen erected if it suited his religious persuasion.

Are not these the veriest commonplaces of everyday experience in the intercourse of men and nations? Do the archaeologists who serve up this criticism with such unfailing regularity shut their eyes to what is happening everywhere in the world around them? How many native races at the present day are unable to extract metal from the ores lying at their doors and yet would barter all that they possess for a bit of copper wire or the simplest metal appliances? Yet such people can build Christian chapels !

Surely it is unnecessary seriously to discuss such thoughtless criticisms as these!

I have already explained in the course of this article why I made the genesis of the idea of building dolmens, not the mere ability to do so, depend upon the invention of copper tools. Dolmens were no doubt built as a rule from unworked stone; but it is a historical fact that the motive for building them originated only after men began to work stone with metal tools.

We have the most positive evidence of the reality of the intercourse between the different peoples who adopted megalithic practices, not only in the monuments themselves, scattered from Ireland to Japan and beyond, but also because tell-tale alien skulls similar to those which appeared in Egypt about 3000 b.c. make their appearance as tangible witnesses in each area to the west of Egypt before the coming of the new culture.

We possess written historical records to prove that in the Third Dynasty Egyptian ships were trading in the Mediterranean as far as Syria and in the Red Sea as far as the Bab el-Mandeb, and it is unlikely that these represented either the earliest or the only maritime expeditions of the Egyptians.

In the course of such over-sea commerce a certain number of Egyptians would doubtless settle in various foreign ports. An Egyptian, for instance, dying abroad would be buried by his comrades in accordance with the
customs of his home. A European dying in Egypt to-day may be buried in imitation of his home customs, perhaps by a Greek or Syrian undertaker, employing Egyptian workmen ; so in ancient times an Egyptian buried in some foreign land would be interred in accordance with his own customs, but as practised in each locality by local craftsmen, whose imitations of the Egyptian burial would be subject to obvious limitations. As Egyptian colonists settled in each foreign port no doubt the Egyptian cult would be observed by increasing numbers of people, and the Egyptian religious observances would influence and be influenced by local practices in much the same way as Christian (Coptic) and Moslem customs have so profoundly influenced one another in Egypt. Nor would such influence be exerted altogether directly. There can be no question that the Egyptian arts and crafts must have made an impression on the Ægean and the Eastern Mediterranean littoral long before they affected the Middle or the West, and that the lands of the Middle Mediterranean would have been subjected to the influence of Egypt partly directly, partly indirectly through Cretan and in later times Phoenician channels.

We can imagine then a colony of Egyptians inoculating a foreign country with their own cult partly by their own practice of their funerary customs (modified by the limitations of local craftsmen) and partly by the force of their example-and as in many places the more civilised and advanced race-influencing the local customs without necessarily foisting Egyptian practices upon the natives. Such Egyptian colonies would not materially disturb the continuity of the local cultural development ; nor would they be likely to destroy, as so many critics pretend, the local ceramic industry.

When a given locality $A$ has been thus inoculated with the influence of Egyptian culture a more distant locality $B$ may be subjected to it later-it may be centuries later-either directly from Egypt or through
the intermediation of the partially Egyptianised centre A or some other centre.

There are various ways in which this slow diffusion of influence may occur. But of course it may occur quickly. We know how Islâm, starting from Arabia, spread west to Spain, east to Malaysia and south into the heart of Africa. Moreover we know how it seized upon the Pharos of Alexandria and adopted it as the type of the religious building which it planted wherever it penetrated.

Do we not know how the Christian religion was slowly diffused from land to land, and how in each country the common type of Christian architecture developed and became specialised to a greater or less degree in each territory?

We have only to look around us at what is happening throughout the world at the present moment to realise all that is implied in human intercourse and appreciate that the spread of megalithic culture was due to no exceptional or improbable circumstances.

It is as unreasonable to deny the influence of Egypt in Sicily when rock-cut tombs were in question, because no Egyptian pottery was found there, as it would be for some archaeologist in the distant future to refuse to admit the native-built Wesleyan chapel in Tonga as evidence of British influence, because he could find no British crockery in the course of his excavations.

In the course of my study of the literature relating to the Polynesian and American extension of the megalithic cult I chanced, out of the merest curiosity, to look at the wonderful monograph on 'The Swastika' which was written by Mr Thomas Wilson and published as a report to the Smithsonian Institute in 1896 . The remarkable map (facing p. 904) showing the geographical distribution of this curious symbol almost coincides with one that I had constructed to indicate the spread of megalithic ideas. I refer to this matter now to call the reader's
attention to this instructive mass of detailed and precise evidence of the spread of a simple device from somewhere near the Eastern Mediterranean until it encircled the whole world. It illustrates the manner in which such ideas can spread.

1. It is quite certain that the Egyptians of the Second and Third Dynasties invented the rock-cut tomb.
2. The other Mediterranean people, both in the Ægean area, as well as in the middle and west, adopted the use of such tombs from Egypt.
3. From the simple type of trench grave the Egyptians developed a great variety of tombs and funerary monuments, crude imitations of which were made by all their neighbours and eventually by more distant nations.
4. The dolmen represents the crude and overgrown copy of that part of the Egyptian mastaba, the serdab, which was supposed to be the dwelling of the spirit of the deceased.

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## THE DIOSCURI IN BYZANTIUM AND THE NEIGHBOURHOOD

During a recent sojourn in Constantinople, I took the opportunity to verify a hypothesis which I had emitted with regard to the popularity of the Heavenly Twins on the Bosporus, in their capacity of Saviour Gods, and with regard to the influence which that most popular cult had upon the hagiology of the Christian Church. It was not at all surprising that such suggestions of primitive Byzantine worship, and of subsequent Byzantine displacements, should have been made, when one reflects on the extent to which the Dioscures and their alternative Kabirs were in evidence in the N.-E. corner of the Aegean, and all round the Black Sea, from the Symplegades onwards. Was it likely that shrines should be erected to them at Tomi, at Olbia or in Colchis, in Delos or Lemnos or Samothrake or Tenedos, but that the sailors should cease making appeal to them, when passing the Dardanelles, or when working up the Bosporus into the further sea that they so much dreaded? Had Byzantium no blessing in the name of the Twins for those that put out to sea, and no facilities for the emphasis of gratitude on the part of the mariner, who had successfully returned to his port again? And since the care of sailors and the rendering docile of the waves sailed over was only one branch of their saving art, was it likely that the Byzantian colony of ancient days, or the proud city of Constantine, had no memorials of its hero benefactors, and no places where they practised their beneficence? Obviously, it is in the
highest degree improbable that the Heavenly Twins had no hold upon the populations that bordered on the Sea of Marmora, or the straits connected with it ; and almost as unlikely that there was an abrupt change of faith at the coming of Christianity, which left the people nothing that corresponded to their original and age-long devotion to the Great Twin Brethren.

Moreover, there is a reason why the Twins should be in evidence on the Bosporus, even if they had been altogether unknown in the Euxine or the Aegean. I have shown elsewhere that the Twins are always to be looked for in situations of peculiar difficulty or danger to mariners ; that they preside over shallows (as at Cyrene and Barca over the great Syrtis), over dangerous places (like the entrance to the harbour at Alexandria or the reef of rocks outside Jaffa), over all straits, from the English Channel downward, and wherever a lighthouse or look-out station is to be found (as in the case of the Pharos at Alexandria or the Dioscureion on Mount Cassius). The Bosporus, in early times, was marked both by lighthouses and by look-out stations; it had dangers of its own, arising from the current which sets through the Strait from the Black Sea, which is difficult for sailing ships in bad weather, and for boats propelled by oars in any weather, at least at those points where the current strikes against some jutting-out headland, or when the stream is reinforced by the North wind so that boats, sailing towards the Black Sea, can no more make headway against it, and have commonly to be carried overland past the points where the downward stream is strongest.

There is then, on every account, an à priori probability that we shall find the Twins in the harbour of Byzantium and on the straits ; at the Golden Horn, or on the Asiatic or European shores of that most beautiful of waterways. Now my hypothesis was that the Twins had been worshipped on the Bosporus at various points, until they were finally displaced by the Archangel Michael;
and that they discharged naval and medical functions in Byzantium itself, where they were finally displaced by pairs of Christian saints, notably by Cosmas and Damian, who had wandered this way out of Syria and Cilicia.

The first part of the thesis concerned the case of the displacement of the Twins by St Michael the Archangel, in which case it was necessary to prove that Christian sailors made vows in certain places to St Michael, and that the Twins had been in those situations before him. If it can be proved that St Michael received such worship and had such antecedents, the case is proved for the Bosporus; and it will be confirmed for every indication that we may find elsewhere that Michael took over the trade of the Twins, or that he received honours in Dioscuric situations. It was not difficult to make the necessary proofs: Michaelia, in the sense of Dioscureia, are actually in existence, and legends are not wanting which can only be interpreted as meaning that Michael did what the Twins used to do. We will give presently a classical passage which establishes the foregoing statement. I first drew attention to it in c. xvi of the Cult of the Heavenly Troins; but as I have had recent opportunity of studying with some care the configuration and currents of the Bosporus, and have also had the opportunity of discussing the whole matter, from the standpoint of Byzantine antiquity, with my learned friend Dr van Millingen, of Robert College, Constantinople, I have been able to improve my former statements and to extend them, so that Dioscurism on the Bosporus can be regarded as finally and sufficiently demonstrated.

We will arrange the argument in the following order:
(i) There are special points of danger on the Bosporus.
(ii) At some of these points shrines of St Michael still exist.
(iii) There are also a number of look-out stations and signalling stations, and lighthouses which appear to be of venerable antiquity.

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(iv) There is literary evidence that the Michaelia on the Bosporus were originally Dioscureia.

In order to make these points clear we must take the Bosporus steamer, or its equivalent, a Murray's Handbook for travellers. When we have thus discussed the topography and the steniography (if I may coin a word), we can return to Constantinople and take up the similar problems which that city presents of the transition from popular Dioscurism to equally popular Christian hagiology. This transition is easier than it looks. Strange as it may at first sound, the Dioscuri are not felt to be a cult alien to monotheism. This is true both for Palestine and for Constantinople; it is true even for Rome. A man was not the less a good monotheist Jew, because he believed that Jahweh had come with the Dioscuri to converse and banquet with Abraham at the Holy Oak in Mamre. If he had any theistic qualms, he silenced them by rechristening the angels of the visit as Michael and Gabriel ; but any unprejudiced person can see that it is a Theophany accompanied by a Dioscurophany, and it is probably quite a late alteration to dress the Twin Brethren as archangels. It would be easy to show that Dioscurism was current in Jerusalem to within a hundred years of the Christian era, and the cult resumed its rights when the Christian era had arrived, so soon as the Fall of the City had announced the cessation of the more highly evolved national ritual. Near Constantinople, Dioscurism held its own under the Christian regime without suspicion; Constantine decorated his new city with the ancient statues of the Twins, although he founded the city as a monument of the victory of Christianity over Paganism!

Now let us return to the Bosporus, and make our Periplus or more exactly, our Anaplus and Cataplus of the various stations. The first point of danger that we reach is at Arnaût-Keui, where the current which has been running down the Asiatic shore in great force, sets across the strait to a point just above the before-mentioned
village. Now let us see what Murray says of our voyage : 'Arnâ̂t-Keui, Albania village, is the ancient Hestiae or Anaplus, which was later called Vicus Michaelicus, from the celebrated church of the archangel Michael which was built there by Constantine the Great and repaired by Justinian. The Church was destroyed by Sultan Mohammed II, and the material was used in the construction of the castle at Rumili-Hissar.... It is built on the S . side of Akindi Burnu, current cape, where the current runs so strong, four knots an hour, that small vessels and kaiks generally land their crews and track round the point. Trackers, yedikjis, can always be obtained on payment of half piastre each. In stormy weather the passage round is dangerous for kaiks, and the current here is called Sheitan Akindisi, Devil's current.'

Here, then, we have our first Michaelion; it is clearly due to the danger of the navigation, and this danger was there before St Michael came this way: it is, therefore, almost certain that sailors had a shrine, in early times, in the neighbourhood of Arnaût-Keui.

The historical details in the foregoing passage can be verified from Sozomen (H. E. II. 3) ; he definitely says that the place was called Michaelion for a primitive Hestiae. The place was on the right hand as you came down the strait from the Black Sea; it was about 30 stadia from the city, as the crow flies, or more exactly as the mariner crosses the bay, but it was more than 70 stadia, if you coasted round the bay and did not cut across. The detail about the restoration of the Michaelion is due to Procopius, who says that there were shrines of St Michael, both at Hestiae and on the opposite side ${ }^{1}$. According to him there was a point, clearly a promontory, called Proöchthoi by the old men, where on the European side was the Anaplus, where sailors worked up stream, and where the shrine of St Michael stood. There was another Michael shrine on the opposite side, and a third at a place

[^296]called Mökadion, which has yet to be identified, where Justinian restored the buildings. The evidence for Michaelia is increasing.

Continuing our journey towards the Black Sea, and passing Bebek and Rumeli-Hissar, where Darius crossed and Mahmoud II, and where the great American college now stands, we come to a place called Stenia, or the straits. It is a wooded shore, enclosing the best harbour on the Bosporus, the scene of many sea-fights, and of much shipbuilding. Here the Argonaut tradition is in evidence. The Argonauts had landed on the opposite shore, where Amykus the King of the Bebryces ruled, at the foot of the Giant's Mountain. Apparently Amykus regarded the straits as his own, and the adjacent wood and water. Whatever the Argonauts got, either in right of water-way or in right of water-supply, they had to fight for: and the story of their victory over the pugilistic Amykus at the hands of the equally pugilistic Pollux (Polydeuces) is $a^{*}$ favourite theme with the great Greek poets: the story is splendidly told by Apollonius Rhodius and by Theokritus, and was probably frequently put on the stage. According to Murray's Handbook, the place where the Argonauts took refuge, when first threatened by Amykus, now known as Stenia, was originally called Leosthenius and Sosthenius. 'It bore among the Byzantines the names of Leosthenius and Sosthenius. The first name is derived from its founder, Leosthenes the Megarian; the second, from the temple of safety, Sosthenia, erected by the Argonauts, out of gratitude for their deliverance : ... in memory of their victory they dedicated the temple (Sosthenia) with the statue of the heavenly face. Constantine the Great, who found here the temple and the statue of a winged genius, converted the former into a church; and the winged genius, who appeared as a saviour to the Argonauts, into the archangel Michael, as the commander of its heavenly host.'

Here is Michael again in evidence, and in connection
with an Argonaut temple. It is clear that there must be some reason for his constant appearance, beyond the occurrence of a particular statue at the special point. Michael is a Byzantine cult, and must be regarded as replacing an earlier cult. Moreover, in the story which we have just been reciting, the whole of the legend has not been told: for it will appear that the popular belief related that Michael was the very person who fought with Amykus: in other words, Michael at this point was Pollux. The verification of this lies in what may be called the classical passage for the change of cult from the Dioscuri to Michael, a statement by John Malalas ${ }^{1}$, from which the previous account was taken, to the following effect:

Malalas begins with the story of how the Argonauts, working up the Hellespont, were attacked by the Cyzicenes, whom they routed in a naval combat ; after having slain Cyzicus, the king of the city, and captured the place, they found, to the mutual regret of themselves and the Cyzicenes, that they were in tribal fellowship: so they built an expiatory shrine and consulted the oracle of Apollo, as to its dedication. At this point the chronographer makes the god prophesy the coming of the Virgin Mary and her Son, an oracle which the Argonauts inscribe on their new building, which they somewhat inconsistently consecrate to the Mother of the gods. This only means that an early temple of Rhea or Cybele has become a Church of the Blessed Virgin, and Malalas proceeds to


 is interesting to notice how the chronographer has projected back the later consecration on the earlier so as practically to make the Argonauts responsible for the whole. The story then continues, that the Argonauts made for the Princes' Islands, and then passing Chalcedon, they attempted the passage to the Pontic Sea (Malalas

[^297]
 $\pi \epsilon \rho \bar{\alpha} \sigma \alpha \iota$ to $\pi \epsilon \epsilon \rho \hat{\alpha} \sigma \alpha \iota$, they were for trying the passage to the Euxine).

In this attempt they were set upon by Amykus. They fled in fear to a wooded bay (evidently the bay of Stenia), and here there appeared to them a vision of a fearsome man with wings, who made them the oracular promise of a victory over Amykus. In commemoration of which victory, they erected a shrine and a monument of the Power that had appeared to them, calling the shrine or the place Sosthenes, because of the salvation from their enemy. It was this shrine that Constantine came to see, and remarking that the memorial appeared to be halfangel and half-monk ( ${ }^{\alpha} \gamma \gamma \gamma^{\prime} \lambda o v ~ \sigma \eta \mu \epsilon i ̄ o \nu ~ \sigma \chi \eta \dot{\eta} \mu \alpha \tau \iota \mu о \nu \alpha \chi o \hat{u}$ ), he prayed for further information as to the Power in question; he incubated at the shrine, and in a vision of the night it was disclosed to him that it was a memorial







Here again we see Malalas projecting Christian matter back on the displaced shrine, just as he did with the dedication of the shrine at Cyzicus to the mother of the gods. What is certain from the story is that a shrine has been converted to Christian uses, which formerly was connected with the Argonauts and with the fight over Amykus. The displaced occupant of the Heroon in question is not the winged genius that promises the victory, but the quite unmonastic and scarcely angelic person who secured the triumph; in other words, either Pollux, or the Dioscuri in common. According to this the converted shrine is either a Dioscureion or a Jasoneion, the two terms for sailors being very nearly equivalent. Michael
may, therefore, be regarded as a displacement of a Heavenly Twin, Pollux by preference.

We come now to the entrance to the Bosporus: at this point we have the invasion of another cult from the Black Sea, that of Serapis. There are Serapeia as well as Michaelia and Dioscureia. We come on such a Serapeion, near the mouth of the Chrysorrhoas, and here Murray's Handbook reminds us, 'Jason, after having offered sacrifices on the Asiatic shore to the twelve great gods, erected an altar to Cybele.' So we are once more on the track of the Argonauts, in whose company Castor and Pollux find a place. Here, too, we find the ancient Pharos, and a custom-house for each side of the strait. If we may treat the modern names as perpetuating ancient sanctities, we have two sacred trees, one on each shore, giving their names to Rumili Kavak, the European poplar, and Anatoli Kavak, the Asiatic poplar. The lighthouse and look-out station stood at the head of the ravine, and, according to Murray, bore anciently the name of Ovid's Tower, or the Turris Timaea. 'This was the old Pharos, from which torches were held up at night, whose lights, placed in a straight line with those at the mouth of the Bosporus, saved the ships navigating the Black Sea from being wrecked on the Cyanean rocks or the Thracian coast.' At Anatoli Kavak, there was again a temple, said to be dedicated by Jason to the Twelve Gods, on his return from Kolchis. This Hieron is now occupied by the Genoese castle at the entrance to the Black Sea; but it had been formerly taken over by Justinian, who built here a church and dedicated it to the 'Archangel Michael, leader of the Heavenly Hosts, who was the special guardian of the straits of the Bosporus.' Note how Michael appears to be following the track of Jason. He is clearly an Argonaut in disguise !

As we return down the strait on the Asiatic side, we shall presently come to Vani-Keui, then to a large Barrack, and the village of Kulehli or Kuleh Bagcheh. Here

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again we shall find a church dedicated to St Michael. The guide-book informs us that 'formerly the church of the Archangel Michael stood here, exactly opposite to the one built on the European side at Kuru Chesmeh. The Archangel Michael was regarded as the special guardian of the Bosporus, and hence churches were dedicated to him at Anaplus, Hieron, Kuru Chesmeh, and Kuleh Bagcheh.' I am not quite sure whether the Michaelion at Kuru Chesmeh is distinct from the one at the Anaplus. It seems to be the same as the one previously described.

We noted above that we passed the village of VaniKeui. At this point the hill above the village has a fine range of landscape, and is admirably suited for a lookout station. It is actually employed to-day for wireless telegraphy, and in Abdul Hamid's time was one of the fire-stations of the city. It stands to reason, however, that in the ancient time when there were no telegraphs, and when one could not always be sure of crossing the strait, a fire-station for Constantinople would never be placed on the Asiatic shore. Moreover, there is a high tower in Stamboul to-day that expressly serves for a fire-station, from which to announce conflagrations.

The station at Vani-Keui may be taken for an original look-out station, with a possible Pharos, and in that capacity both it, and the corresponding fire-station in Stamboul, were probably Dioscureia.

We have now followed St Michael up and down the Bosporus. We find him on both sides of the strait, presiding over sanctuaries which appear to occur in pairs. These sanctuaries appear to be either Jasoneia or Dioscureia. The story in Malalas appears to identify Michael with Pollux the Argonaut, rather than with Castor or Jason. Serapis, whom Leucius suggests as the ancestor of Michael, is clearly not to be thought of.

It will be interesting to see how far this connection between Michael and the Twins can be made out elsewhere. There is one curious case which came to my notice in
recent years; the newspapers reported that at the great eruption of Vesuvius, the stream of lava and mud from the crater had overwhelmed the church of St Michael, which was formerly a shrine of the Heavenly Twins ${ }^{1}$. No doubt there are many more such cases besides the one I accidentally stumbled upon.

Now let us return to harbour and see what traces we can find archaeologically of the Cult of the Twins. We have already suggested the possibility of the existence of an ancient look-out station on the highest part of Stamboul.

We learn from Zosimus ${ }^{2}$ that when Constantine began to plan his new city, he found the statues of the Dioscuri on the place where he was planning the new Hippodrome. He did not remove them. It is even said that he went further, and brought from Mt Dindymus a statue of Cybele, which was credited to the Argonauts. So Constantine had not quite accomplished his religious revolution! Probably, as the Sea of Marmora would have been visible in those days from the Hippodrome, the place was a look-out station, and a Pharos, which the carefully preserved statues of the Twins help us to recognise as a Dioscureion.

There was another shrine of the Twins at the head of the Golden Horn, on the hill above Eyoub. Hesychius Milesius is quoted by Ducange in Constantinopolis Christiana, lib. I, p. 15 , to the following effect ${ }^{3}: \tau \bar{\omega} \nu \quad \delta \hat{\epsilon} \Delta \iota \sigma \kappa к о \cup ́ \rho \omega \nu$,




[^298]aedificavit idem Byzas ad Borbyzae et Cydari confluentes ; ad Semestrae aram et fluminum confluentes, ubi et a morbis homines sanabantur.

The streams above mentioned are what are now popularly called the 'Sweet Waters of Europe'; and the site of the Temple of Castor and Pollux here given corresponds, with sufficient nearness, to the site of the Church of Ss Cosmas and Damian, on the hill above Eyoub.

It is interesting to notice that the Twins appear at the point in question as healers, and it is as healers that the famous fee-less doctors, Cosmas and Damian, displace them. Another tradition, preserved by Dionysius of Byzantium, connects the sanctuary at the Sweet Waters of Europe with Jason and his companions, which is a slight variation from the preceding: according to Dionysius, Barbyses, after whom one of the streams is named, was either the person who reared Byzas, the founder of Byzantium, or he was the steersman of Jason and the Minyans. The alternative is to describe the sanctuary as a Jasoneion or a Dioscureion, a choice which will frequently occur ${ }^{1}$.

Justinian, who professed to have been healed by the Cosmas and Damian Twins, built churches in their honour, not only in Constantinople, but also in Cyrrhus, near the Euphrates, where their bodies were supposed to be lying ${ }^{2}$, and at Aegae, and perhaps Zeugma on the Euphrates, where they had charge of the passage of the river. That they commonly displaced the pair Castor and Pollux is betrayed by a naïve story, told by their hagiographers, of the discomfiture of some unbelieving, or ill-believing Greeks, who attempted an incubation in the new Church (or old Temple), and were reproved by the saints who told them, 'You seem to imagine that we are Castor and

[^299]Pollux; we beg to inform you that we are Cosmas and Damian!' Thus were the wicked Greeks reproved for imagining that it was the original firm, who were doing business at the old stand, under a new name.

The saints in question, whom we unhesitatingly identify as Dioscures, not only because they were twins, but because they discharged twin-functions, became the centre of a Greek brotherhood, and gave their name to an open space in Constantinople, known by the name of Cosmidion. When they moved West and took their place in Old Rome, they arrived by two roads; one of which led them near to the Forum to found the church of Ss Cosimo and Damiano ; the other to the neighbourhood of the Bocca della Verità, a circular drain-head where Romans used to swear, thrusting their hands into the Bocca. At this point was built the church of St Maria in Cosmedin, rebuilt in the eighth century by Hadrian I, with a beautiful campanile. The Church belonged originally to a Greek brotherhood, as is shown by the reference to Cosmedin, and by its alternative title as Sancta Maria in Schola Graeca.

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## THE BEGINNINGS OF MUSIC

## I

During recent years I have had the opportunity of studying the music of three primitive peoples, differing widely in race and culture, (i) the Torres Straits Islanders, who appear to be mainly Papuan, but may have been affected by Australian, Melanesian and even Polynesian influences, (ii) the Veddas, who have been termed 'proto-Dravidian' aborigines of Ceylon, and (iii) the Kenyah, Kayan and Klemantan peoples of Sarawak, Borneo, where Mongolian, Malayan, and possibly Indian and other influences have been at work. The music of these three peoples forms the main basis of this paper.

The Malu music of Murray Island (situated in the eastern part of the Torres Straits) affords perhaps the most interesting examples of very primitive music which have yet come to light. Among the Murray Islanders it is easy to recognise three classes of music, each with a style distinctly its own,-(a) modern secular tunes, sung usually to foreign words in the language of the western islands of the Torres Straits, and in great part introduced from these islands to Murray Island, (b) older tunes, belonging to the now obsolete Keber ceremonies, also introduced from the western islands and sung to words in that tongue, and (c) the music of the still older ${ }^{1}$ Malu ceremonies. This Malu music was sung to words of the Murray Island language, but the words are now so old

[^300]that they are archaic, and their meaning is in many cases lost and irrecoverable.

As I have stated, the Malu music is quite different in character from either of the other two classes of more recent Murray Island music which I have named. There can be little doubt that it belonged to an earlier and very different culture. During my stay in the island I was able to collect five different tunes belonging to the Malu ceremonies, but only after the greatest difficulty. The Malu rites related mainly to the initiation of boys and to the funeral ceremonies of those admitted to the cult. The tunes were so sacred that no woman or child might hear them and live; even at the time of my visit, ill-luck was feared from the singing of them ${ }^{1}$.

Malu Song No. IV ${ }^{2}$.


The first of these songs to which I will call attention is Song IV of my collection. It consists of a series of descents through approximately whole-tones varying from 160 to 220 cents $^{3}$, the number and (within the limits just mentioned) the size of the steps appearing to be entirely at the discretion of the singer. Ultimately so low a note is reached that the singer stops. Here we seem to have a song founded merely on the addition of step to step in descent, the size of the steps being intended, perhaps, to be equal.

[^301]Another of these Malu songs, No. III, consists of only two intervals, one of 190 cents ascending from the initial note, and the other of about ibo cents descending from

Malu Song No. III $^{1}$.


Variant

the initial note, followed by a markedly portamento descent to a note approximately an octave below the initial note.

From a consideration of these two songs, it would appear that the Malu music is founded on a number of descending intervals, each approximately of a whole tone, and that the importance of the pitch of the initial note and its close relation to its lower octave become early recognised.

## Malu Song No. II.



The further development from this stage is well seen in Song II of the Malu songs. This song consists of an
${ }^{1}$ The asterisks in these songs indicate drum beats.
introductory recitative followed by a fairly rhythmic descent through a series of five intervals, each of which is somewhat larger than a whole-tone. The descent extends approximately through an octave, after which the verse is again repeated at (nearly) the original pitch. The octave rise may occur either in the course or at the end of the verse,-indeed, probably whenever the pitch has become uncomfortably low for the singer. At different times and from different singers I obtained three records of this song, two containing two verses each, and one containing four verses. Of these eight verses six consist of the just-mentioned descent, by five approximately equal intervals, through an octave. Clearly, the initial note served as a kind of keynote to the singer, which he reached again at the end, and with which he began each new verse. He had therefore to keep carefully before him the pitch of the initial note. In point of fact he generally tended to sharpen this note in memory. Thus one verse begins on $G$ and ends on $A^{b}$; the next begins on $A^{b}$ and ends on $A$; another verse begins on $D$ and ends on $\mathrm{E}^{\mathrm{b}}$. The octave rises, however, which occur in the middle or at the end of a verse, are almost exactly in tune. In this song we see the development of an air based on five successive, roughly equal, descents, the pitch of the initial note being steadfastly kept in mind to serve as the final note of that verse and as the initial note of the next ${ }^{1}$.

Two verses, each in a different record, show deviations from the above plan, which are of considerable musical interest. In one the singer adds a sixth step in descent, bringing him (without any octave rise) to a note nearly a minor tenth below the initial note. Nevertheless, he appears to have borne the pitch of the latter in mind; for, realising that he has descended too low, he at once

[^302]$$
36-2
$$
reaches the first note of the next verse by a rise through the interval of a tenth. The other anomalous verse contains two rises through a fifth instead of the usual rise through an octave; one of these rises occurring in the middle, the other at the end of the verse. In contrast to the octave rises these fifths were very impurely sung, containing 654 and 626 (instead of 702) cents respectively. This natural tendency for a primitive musician to substitute fifths for octaves is of special musical interest,

seeing that among ourselves the fifth is recognised to be the next most 'consonant' interval after the octave, and that confusion is more apt to occur between octaves and fifths than between octaves and any other intervals.

In another of the Malu songs (No. IVA), instead of octave descents by a series of small intervals, we find a series of direct fifth descents which alternate with ascents through fourths, the notes being reached always by a characteristic portamento. By such descents of a fifth
and rises of a fourth (averaging 761 and 534 cents respectively), the pitch falls in a series of approximately whole-tones until the singer has finished the words of his song. In this song the initial note appears to be of no importance, but it is probable that the height of each ascent is partly determined by the memory of the pitch of the previous high note and by the intention to ascend about a whole-tone lower than this note. At the same time it is perfectly obvious that the fifths and fourths have arisen independently, not as the sum, of the smaller 'whole-tone' intervals. The rudiment of 'form ' which we noted in the last song is here still further developed; an opening phrase, based on a descending fourth, is clearly differentiated from the rest.

We may thus sum up the main characteristics of the Malu songs:
(a) The use of a succession of (approximately) whole-tone descents.
(b) The memory of the initial note, permitting a return thereto at the start of successive verses.
(c) The use of accurately attuned octave rises, for which (approximate) fifth rises may be occasionally substituted.
(d) The use of (approximate) octave and fifth descents and fourth ascents, almost invariably portamento.
(e) The origin of these larger intervals independently of the smaller ' whole-tone ' intervals.
( $f$ ) The absence of thirds, sixths, sevenths, or other intervals.
(g) The commencing employment of musical phrases and their repetition at different levels of pitch.

Turning now to the Veddas of Ceylon ${ }^{1}$, we find it possible to divide their songs into three groups according

[^303]as the latter contain (A) only two notes, (B) three notes, (C) four or five notes. To Group (A) belong twelve of the songs (including three which contain an additional unimportant grace note) ; to Group (B) also belong twelve songs; of the ten songs belonging to Group (C), only one consists of five notes, the others consisting of four.

There is good reason for believing that Groups (A) and (B), the songs of which, as I have just said, consist of two or three notes only, represent the oldest Vedda music. For of ten songs, judged by Dr Seligmann on linguistic and ceremonial grounds to be the most archaic, four belong to Group (A), four to Group (B), and only two to Group (C); and of eleven songs in which, for similar reasons, foreign or modern influences may be suspected, five belong to Group (C), five to Group (B), and only one to Group (A).

The interval in the songs of Group (A) is never appreciably greater than a whole-tone. In some it measures 125, in others 205, cents; in others again it is midway between,-about 165 cents. A resting note is nearly always clearly defined and is invariably the lower of the two tones.

Vedda Song No. $18(2)^{1}$ (Group A).


[^304]Vedda Song No. 42 (Group A).


The range of the tune in each of the songs of Group (B) never appreciably exceeds (generally it is less than) our minor third, -save in two anomalous songs. In most instances the intervals employed in the songs of this group are approximately a semitone and a whole-


Vedda Song No. 37 (Group B).

tone; in others they are two approximately equal threequarter tones. When the intervals are of different size, either the upper or the lower may be the larger. But, as in Group (A), the lowest note is always the resting note, the centre of gravity, of the song. Nowhere in

Group (B) is an interval appreciably exceeding a wholetone actually sung.

In the songs of Group $(\mathrm{C})$, the range never exceeds a fourth, save in two late or foreign songs. In some songs the range is only a neutral third, containing two intervals of about 100 cents and one of 165 cents. In onesong the range is a fourth, divided into three equal intervals of 165 cents each; in five songs the range is also a fourth, but divided into intervals of about 100 , 165, and 230 cents. In all the songs of this group there

Vedda Song No. 33 (Group C).
=208. Sve lower.


is a very clear resting point or terminal note, which is almost invariably the lowest tone but one. The interval below this 'tonic' is usually the smallest of the three; it serves frequently to re-introduce the tune beginning on the highest note. In this way the fourth is several times sung in ascent, but it appears to have arisen, like the thirds which occur in the songs of this group, from the sum of two or more of the smaller intervals.

The special features of the Vedda songs thus are:
(a) The very small number and range of notes, most songs containing only two or three notes, and the range never exceeding a fifth.
(b) The small size of the intervals sung, the fourth being the largest interval used.
(c) The importance of the lowest tone (or when more than three tones are used the tone above the lowest) as the resting point of the tune.

From other investigations of primitive music it is in the highest degree probable that these Vedda songs and the Malu songs of Murray Island represent two of the earliest stages in the development of music with which we are likely to meet among primitive peoples of the present day. As I have already stated, the Malu music is so old that the words accompanying it are now obsolete and almost meaningless. It differs entirely in style from that of the more modern Murray Island music; probably the latter belongs to a very different culture and has quite another origin. The primitiveness of the Vedda music may be gauged from the number of their two-note tunes and from the fact that those Veddas who are least contaminated by outside influences have no musical instruments whatever. The drums, which some of the more sophisticated Veddas occasionally use as an accompaniment to their songs, are borrowed by them from their Sinhalese neighbours ${ }^{1}$. Also in Murray Island, the drum is the only instrument ever used as an accompaniment to the songs. Flutes, pan-pipes and jews' harps, though occasionally seen, are so seldom used that they cannot be supposed to have had much influence on the development of Malu music.

Both the Malu and the Vedda tunes are based on a series of successive small 'tone-distances.' In the Malu tunes, as distance is added to distance, the range of tones becomes so wide that the first note necessarily acquires especial prominence; it must be retained in the memory of the singer, in order that sooner or latter (with the

[^305]beginning of a new verse) a return to the initial note may be accomplished. Among the Veddas, on the other hand, the number of steps is so small that this task presents no difficulty. Instead, the second note, or when a third (or fourth) note is added, the third note, becomes all-important. Thus, the lowest note, instead of as in Malu music the highest, is here the principal note of the tune,-the centre of gravity, to which the melody seeks to return and on which it ends. In the Malu songs of Murray Island, we have the frequent use of portamento, giving us wide intervals first of the octave, and later of the fourth and fifth. Among the Veddas, on the contrary, the use of octaves and fifths and of portamento is unknown ; the notes are always hit accurately. Where, as seldom happens, intervals appreciably exceeding a wholetone are employed by the Veddas, they appear to have arisen merely from the addition of tone-distance to tonedistance ${ }^{1}$. In Murray Island, on the other hand, the wide range of the Malu songs has encouraged the use of octaves. As I have suggested, it is perhaps this use of octaves that has led to the fifth ascents and descents, thus favouring a rudimentary delight in consonances,-that is to say in 'intervals' that are based on a relation between tones of somewhat widely different pitch, instead of being determined merely as the sum of a number of smaller ' distances.'

Corresponding to the use and avoidance of portamento in Murray Island and Ceylon respectively, we find the recitative prominent in the former and rhythm prominent in the latter. If, in consequence of their reliance on tone-distances and their relative neglect of consonant intervals, the Veddas show a more rudimentary grasp of melodic form, their music leads to greater complexities of rhythm than occur in the Malu music of Murray

[^306]Island. Alternate bars, of three and five beats each, succeed one another; triple as well as quadruple time occurs. Such developments are unknown in Malu music.

The main differences between Malu and Vedda music may be therefore summarised thus :

## MALU

Wide range of tones, often exceeding an octave.

Importance of initial note.
Frequent use of octaves, fifths and fourths, as consonant intervals. Thirds never occur.

Frequent use of portamento for octaves, fifths and fourths.

Diffuse, and recitative in character, with use of phrases at different levels of pitch.

## VEDDA

Range is generally limited to one or two whole-tones.

Importance of end-note.
Thirds and fourths occasionally used, as tone-distances. Fifths and octaves do not occur at all 1 .

Intervals are hit without portamento.

Concise, rhythmic in character, with a more rudimentary differentiation into phrases.

The Veddas, as we have seen, have reached a stage at which their music consists of three notes (the lowest being the principal note), to which a fourth note, generally about a semitone below, may be added, the highest and lowest of the four notes forming an interval roughly of a third or fourth. In the main, the Veddas think musically in terms of (small) 'distances' ; whereas the Malu tunes begin to make use also of 'intervals,' i.e. of octaves, fifths and fourths.

In the Sarawak territory of Borneo, the stress laid on 'intervals' is still further developed. Their music appears to have arisen on a basis of the descending fourth. Of the thirteen songs I collected in Borneo, nine contain the cadence $\dot{\mathrm{C}} \mathrm{B}^{b} \dot{G}$; that is to say they are based on a descent through a fourth,-to which a higher $D$ is occasionally added ${ }^{2}$. The note A hardly ever occurs. Of these notes $\dot{C}$ is important as the initial note of

[^307]the song; $G$ is conspicuous as the final note, while $B^{b}$ is at times prominent because of its accent. Four of the songs (cf. Nos. 3, ıo) are made up almost entirely,

Sarawak Song No. $3^{1}$.

- =66. $\quad c^{2}=f^{\prime}$ च.


Sarawak Song No. io.

or entirely, of these tones. In others, however (e.g. Nos. 19, 24), a chorus note is introduced in the form of a drone, an octave below the initial note. Thus, in addition to the intervals $\dot{C}-B^{b}-G$, we have the interval $G-C$ which is filled out in the solo with the intermediate notes F and $E$, the tune being hence based on the pentatonic scale C $B^{b}$ G F E C.

1 These four songs have been transposed so as to have the same initial note. The
ginal pitch of each sony is also indicated. original pitch of each song is also indicated.

Sarawak Song No. 19.


Sarawak Song No. 24.


This drone is employed not only in the vocal but also in the instrumental music of Sarawak. The Sarawak keluri, consisting of six pipes fitted into a gourd the neck of which serves as a mouthpiece, gives the same scale, $\dot{\mathrm{C}} \mathrm{B}^{b}$ G F E C, of which the lowest note (and sometimes another) is used as a drone. The keluri is occasionally used as an accompaniment to the songs.

The absence of instruments (save the drum) in Vedda
and in Malu music, and the fact that when the Veddas and Murray Islanders sing in chorus they always sing in unison, are characteristics which at once distinguish these tunes from those of the Sarawak people. The Vedda and the Malu music seems very clearly to have arisen from the successive addition of small tone-distances. The Malu music, with its insistence on the initial note, its use of portamento, and its great number of added intervals, early yields the recognition of octave, fifth and fourth consonances; whereas the Vedda music, emphasizing the final note, and content with one, two, or at most three intervals, never contains an interval exceeding a fourth, which is of little melodic importance and is sung in ascent. Sarawak music appears to show certain characteristics both of the Malu and of the Vedda music. Like the Malu music, it lays stress on the initial note; like the Vedda music it is at first content with a narrow range of notes,-a descending fourth. Through the influence of the drone (an octave below the initial note), a descending fifth is subsequently added and the important tone becomes the new low octave note.

It seems as if, at an early date in the development of Sarawak music, the large intervals of fourths and fifths received the greatest stress, and that at all events the latter were subsequently broken up into smaller intervals ${ }^{1}$. If this interpretation is correct, we have two broad modes of the evolution of scale-notes, (i) by the synthesis of (small) 'distances' as among the Veddas, (ii) by the analysis of larger (consonant) 'intervals' as in Sarawak. In the Malu music the first method is the more pronounced, but octaves, fifths and fourths seem to have arisen independently and concurrently. In the Keber and more modern music of Murray Island (cf. Reports, vol. iv. pp. 245-247), the filling in of fourths and fifths with smaller intervals is recognisable.

[^308]No doubt musical instruments have played an important part in maintaining scales based on equal tonedistances. The Siamese instrumental scale, for example, divides the octave into seven equal steps: the Javan into five equal steps. Our own pianoforte scale of twelve equal semitones,-a mode of temperament which was earlier adopted or advocated independently in Indian and in Chinese music also-affords another instance. The ancient Greeks appear to have formed their scale by adding note after note or by joining tetrachord to tetrachord on their instruments. For them distance appears to have been so much more important than interval, that they came to give to each note a different letter-name, ranging from A to $\Omega$; it was only in early Byzantine music that the note following the note $\eta$ was given the name of $\alpha$, the identity of octave tones being at length recognised by identity of lettering.

Even when a consonant interval formed the startingpoint of instrumental calibration (e.g. the fifth based on the shortening of strings or pipes in the ratio of $2: 3$, as in the Pythagorean method and in ancient China ${ }^{1}$ ), nevertheless the further rigid application of mathematics on these lines led to the production of intervals which are totally at variance with any feeling for consonant intervals.

## II

Still earlier, for the foundation of musical enjoyment, must have appeared the recognition of the difference between noise and tone; the recognition of loudness, pitch, duration, character and quality, as so many directions in which any given sound may be made to vary ; and the memory, however imperfect or shortlasting, for absolute pitch.

[^309]Given these beginnings, we can trace the development of melodic and rhythmic phrasing from the utilisation of sounds of different pitch, duration and loudness; we can trace the development of 'meaning' out of the emotions, the feeling-attitudes, and the associations produced by individual sounds and rhythms and by their successive and simultaneous combination.

Thus the beginnings of music may be said to depend on the following eight factors ${ }^{1}$ :
(i) Discrimination between noises and tones.
(ii) Awareness of difference in loudness, pitch, duration, character and quality.
(iii) Awareness of absolute pitch.
(iv) Appreciation and use of (small) approximately equal tone-distances.
(v) Appreciation and use of (larger) consonant intervals and the development of smaller intervals in relation thereto.
(vi) Melodic phrasing.
(vii) Rhythmic phrasing.
(viii) Musical meaning.

The relative independence of some of these 'faculties' is shown by the study of such pathological cases as the following ${ }^{2}$.

An excellent musician was helping in a performance of the 'Flying Dutchman' at the local opera, when suddenly, at the end of the ballad in the second act, the music became for him a series of most unpleasant sounds. It was not a matter of mere dissonance but of sheer intolerable noise. He left the theatre in tears. On the following day he happened to hear a barrel organ in the street, but the tune seemed to him a meaningless noise. For the next five years this change persisted.

[^310]He could appreciate rhythm in a piece of dance music, but he heard the dance tune merely as a toneless row. Though he could read music from the score as well as ever, the tunes he heard were absolutely meaningless, and he therefore no longer played on the piano. In this case, then, a sudden loss of the ability to distinguish tones from noises (i) occurred while the sense of rhythm (vii) was still preserved.

In another case, an old man suddenly lost comprehension both of speech and music, but he retained the ability to hear noises and tones. His intelligence and memory were unimpaired. If addressed, he heard that he was being spoken to, but answered 'I hear well, I hear everything, but it is all a jumble.' He heard all noises, he could distinguish the house bell from other bells. He could recognise the voices of unseen people and identify unseen instruments by the quality of their sounds. He could correctly distinguish between high and low tones. But when his daughter played a selection from a quite familiar opera, he failed to recognise what was being played. In this case the discrimination between tones and noises (i) and the awareness of differences in loudness, pitch, duration, character and quality of sounds (ii) were preserved, but musical meaning (viii) was entirely lost. He was afflicted not only with 'worddeafness,' but, as occurs in the unmusical among us, also with 'tune-deafness.' The individual tones were still audible, but there arose a total incapacity to combine them into a 'form,' there was a loss of what the Germans would call Musikgestaltqualität.

The importance, for music, of the awareness of absolute pitch (iii) has perhaps not been hitherto sufficiently recognised. In Europe we generally reserve the term 'awareness of absolute pitch' to the ability of trained musicians to give a name to any tone sounded or to produce the corresponding tone when the name of a tone is given. But this ability is obviously based
on a more primitive form of awareness of absolute pitch which arose long before names began to be applied to tones of different pitch. We have seen how in Murray Island the remembrance of the initial note dictates the octave fall, enabling the singer to recommence his song time after time at (approximately) constant pitch. Such memory for the absolute pitch of a single note must be the basis of tonality in music and of the use of (consonant) intervals in place of (small) tone-distances.

On general grounds, the sense of absolute pitch is probably strongly developed in primitive people. Parrots, taught a given tune, will always repeat it in the same absolute pitch, and this is said to be largely true also for young children ${ }^{1}$. Such instruments as the pan-pipes and the harmonica, which have each a very wide range of distribution,--the former occurring in Melanesia and Brazil (including ancient Peru) and the latter in Burma and Africa,-have been shown to preserve the same absolute pitch despite their wide wanderings ${ }^{2}$. It is probable that the sense of absolute pitch is in part responsible for such conservatism.

That the appreciation of tone-distances (iv) is distinct from the appreciation of intervals (v) is borne out by the recent investigations of Révés $z^{3}$ on his friend Paul von Libermann, who, being highly musical and gifted with awareness of absolute pitch, proved an exceptionally suitable subject for inquiry. Owing to an ear affection, the note $\mathrm{C}_{1}$ was not heard normally ${ }^{4}$, so that when $\mathrm{C}_{0}$ and $C_{1}$ were given successively, the interval was judged by the subject to be a fourth; that is to say, $\mathrm{C}_{1}$ gave him the impression of a G. Nevertheless he insisted that the distance between $\mathrm{C}_{0}$ and $\mathrm{C}_{1}$ seemed to be much greater than a fourth, probably a major seventh or an octave. Thus his

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appreciation of 'interval' was altered while his appreciation of 'tone-distance' remained.

That the appreciation of intervals given by successive notes is independent of the fusion effects produced by simultaneous notes is also shown by this subject ${ }^{1}$. His ear trouble caused him to hear all tones between $\mathrm{g}^{2}$ and $d^{4} \#$ as a $G \#$. Hence when two such tones as $e^{2}$, $b^{2}$ were given successively, the subject judged the interval as a minor third (E-G\#) ; but when they were sounded simultaneously he at once judged it correctly as a fifth (E-B). In other words, while the grade and character of fusion (simultaneous octave tones fusing differently from fifths, fifths fusing differently from fourths, fourths from thirds, etc.) allowed of the correct identification of intervals between simultaneous tones, his appreciation of the intervals between successive tones was lost and hence depended on quite another basis.

It has been supposed that primitive people could only have employed such successive intervals as octaves, fifths and fourths after they had actually heard the tones sounding simultaneously (i.e. consonantes). But the Murray Island people always sang in unison ; even if, as Stumpf has suggested in such cases, they occasionally failed to keep strict time together, it is unlikely from the nature of the more primitive examples of Malu music that chance accords of fifths and fourths would ever have occurred. Indeed I do not think that, after a careful study of the Malu music, anyone can doubt that the octave, fifth and fourth intervals, therein employed, have developed quite independently of the fusion effects produced by such accords. It seems certain that the use of these intervals depends directly on the pleasure derived from the relationship between the two consecutive tones, and not on the fusion effects obtained by hearing the

[^312]tones simultaneously. As I have already insisted, the memory for absolute pitch has played an important part in furthering this relationship; for the intervals are employed under the precise conditions most unfavourable for the preservation of tone relationship, e.g. between the ends of almost chromatic passages, and between the ends of a slow portamento glide.

## III

A general study of the cases in which, owing to cerebral lesion, musical appreciation is lost shows that such disturbances rarely occur apart from simultaneous disturbances in word-language. From this fact, and from the close topographical relation of the cortical structures involved in speech and music, we may be disposed to conclude that the beginnings of music have been derived from speech. It would be safer, however, to conclude that both have been evolved from a mechanism designed for the vocal 'expression of meaning.' Psychologists now recognise that words are not necessary for the awareness of meaning; they are indeed but an imperfect means of formulating and conveying it. Further, musicians now recognise that music has a meaning of its own, which is spoilt, or at least imperfectly rendered, by translation into words; indeed, 'meaning,' in the sense of what can be conveyed in verbal language, is by no means essential for musical enjoyment. At most what is common to two or more individuals listening to the same music is a common attitude, a common mood, or a common emotion. Even the most modern 'programme music' requires a printed programme in order that the audience may interpret it in the precise 'objective' manner desired by the composer.

In their fully-developed states, speech and music present very decided contrasts. Speech has a precision and a utilitarian character, opposed to the vaguer artistic

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influence of music. Speech serves for the communication primarily of cognitive experiences (what we know), whereas music primarily communicates affective experiences (what we feel). Music employs definite intervals precisely hit by the executant, and regular rhythmic periods; speech is relatively independent of pitch. What changes there are in the pitch of speech occur as a rule continuously and without uniformity; while its rhythm (in prose) is irregular. The most primitive music and the most primitive speech which are available for examination at the present day are perfectly distinct from each other. Nevertheless, traces, perhaps, may be detected of their earlier approach to one another. In the most primitive music the intervals are only imperfectly defined; the slow portamento sung between widely different notes may be reminiscent of a long wail. The fact that in certain languages the same word may have different meanings according to the way in which it is intoned also brings speech and music more closely together. But even if it be true that both speech and music have been developed from a common mode of expression, it is clear that the latter cannot properly be termed speech or music.

The prime function of musical expression is then to communicate certain emotions and feelings. The regard for beauty per se in Art only begins at a much later stage of mental development. For primitive peoples, and even for the masses in civilised countries, beauty and pleasure are practically synonymous. What pleasant purpose, then, has music served? Some have believed that music has developed from its employment for the facilitation of work or as an accompaniment of the dance. It is true that most primitive peoples find great delight in rhythmical expression, but an examination of their tunes (cf. the Malu songs) shows that the use of definite rhythm is by no means universal or necessary. Others have believed that music has evolved from its serviceableness as a means of sexual attraction. But it has yet to be
shown that even in birds this is the origin of their song. Certainly the sounds emitted by animals serve to communicate other feelings than those of love, e.g. pain, alarm, contentment and anger. And so doubtless in ourselves music has arisen from efforts to express not merely sexual love but such general feelings as joy, sorrow, tenderness and ecstasy.

A series of experiments, as yet incomplete, which I hope to publish later, shows very clearly how differently music appeals to different individuals at the present day. Some when they hear music translate it into words, others are led by association to think of similar sounds in nature or elsewhere; in others again the emotional element predominates; while yet in others there is a strong tendency to movement. To such individual differences, I believe, are to be attributed the rival hypotheses of different writers, which variously ascribe the beginnings of music to speech or to the imitation of the sounds of nature, or which lay stress on the importance of sex or of rhythm.

C. S. Myers.

## KITE-FISHING

One of the most remarkable of fishing methods is that which involves the use of a kite which is flown over the water and to which is attached the fishing-line. To the end of the latter is fastened a lure or a baited hook or noose, which is made to play over the surface of the sea by the movements of the kite in the wind.

Starting with the most westerly limit of the distribution of this peculiar method of fishing, there are references to its occurrence in Singapore. W. W. Skeat ${ }^{1}$ says, 'A small kind of roughly-made kite is, as is well known, used at Singapore for fishing purposes...' He, unfortunately, gives no description of the method or the appliance, and although I have made many enquiries, I have as yet been unable to obtain a description of the practice among the Malays of Singapore, nor have I seen any specimens of the apparatus from that district. There is, however, in the collection of models of ships and boats at South Kensington, a small model which throws much light upon the practice in this region. This model, which was exhibited in the International Fisheries' Exhibition in London, and was sent by the Straits Settlements Commission, represents a couple of 'Malays fishing for gar-fish, Singapore' (Fig. i). Each holds a fishing-rod with line passing through an eye at the top. To the line is attached a small palm-leaf kite which flies out over the water causing the distal end of the line, which terminates in a small running-noose

[^313]and is baited with a shrimp, to jerk along over the surface of the water. The model is carcfully made and shows clearly the details.


Fig. 1. Singapore. The fact that this method of fishing with a kite is little if at all followed in Singapore at the present day, seems to point either to its having been superseded by some other method of catching garfish (belone), or to its having been practised only by sporadic immigrants into the district, hailing, perhaps, from Java.

From Java itself the fishing-kite is described by Dr P. N. van Kampen ${ }^{1}$, who refers to its employment by fishermen of the village of Tanara on the north coast of Bantam, West Java, who extend their fishery into the Bay of Batavia. He also mentions the use of the kite for fishing in the Thousand Isles, north of Batavia, and in the Island of Bawean, lying away to the north of Eastern Java. Dr van Kampen suggests that this method may have been introduced by Buginese (S. Celebes) as the practice obtains in the Moluccas. I have at present no direct reference to the use of the fishing-kite among the Buginese, but it may well be that they are acquainted with the method, and it is certain that these keen traders have in many ways affected the culture of Java. Dr van Kampen, to whom I am much indebted for a copy of his interesting book, describes the pantjing lajangan (pantjing $=$ line-fishing; lajangan $=$ kite) of Tanara (Fig. 2) and says that the kite is made from the leaf of an epiphytic fern (Polypodium quercifolium), not strengthened along the borders with inserted ribs, as in the Moluccas. (The same leaf is used as a kite by children in Celebes.)

[^314]Two fishermen sit in each prau which is anchored, and each man is provided with a rod and kite. The rod is of bamboo and is stuck upright in a hole in a plank. The line passes through two rings on the rod and the kite is flown high over the surface of the sea. The tail of the kite is replaced by a line which ends in a small noose, made from a single fibre of Arenga saccharifera, to which is fastened a small fish as bait. By clever manoeuvring the fisherman keeps the noose playing upon the surface and when the tjendro (belone or garfish) takes the bait the noose is tautened and the fish is caught by the jaws. The pamatpat landhjang of Bawean Island is identical with the pantjing lajangan of Tanara.

An excellent description of the Moluccan varieties of the


Fig. 2. Java. fishing-kite is given by Max Weber ${ }^{1}$, who saw this method of fishing for gar-fish practised in the Banda Islands, in Gisser (to the east of Ceram), in Ternate (west of Gilolo), and in Karakelang (Talauer Islands). In the Banda Islands a rod is used having a ring at the upper end through which the line passes. The kite is made of a long, narrow leaf and from it hangs the lower part of the line which terminates either in a running-noose of copper wire upon which is threaded a small fish as bait, or in a fish-hook (Fig. 3). Jacobsen also figures the fishing-kite in use in the Banda Sea ${ }^{2}$, but his figure differs from that of Weber in the

[^315]absence of the rod and in a difference in the form of the kite (Fig. 4). In Karakelang, according to Weber (op. cit.), the rod is absent, the line being wound on a wooden spool held in the hand. The kite is made


Fig. 3. Banda Islands.
of a large dried leaf very like that used in West Java, but strengthened by the insertion of a pair of slender rods threaded through the leaf near the margins and crossing one another at the top and bottom of the kite. The line


Fig. 4. Banda Islands.
passes through a loop fixed to the central mid-rib and is attached to the lower junction of the strengthening ribs. The extremity of the fishing-line, about 20 metres from the kite, carries a hook which plays upon the seasurface when the kite is flown from a canoe (Fig. 5).

In Gisser, an interesting modification in the apparatus is seen, which helps to link the fishing-kite of the Malayan Archipelago with that of Melanesia. Instead of a bait, a special kind of lure is employed, consisting of a tangle of spider's web attached to the extremity of the trailing line. This lure is admirably adapted to its purpose. The long teeth and the numerous and characteristic rugosities on both the jaws of the belone become readily entangled in the viscid mass of spider's web, which holds tenaciously. These gar-fish habitually feed


Fig. 5. Karakelang Island.
upon small pelagic fish, and skim along the surface, so that they are readily attracted by a lure which is caused to 'play' on the water like a live thing.

Passing eastward, a long gap is noticeable in the continuity of distribution of the fishing-kite, since this appliance does not seem to be employed in the island of New Guinea, unless it be on the south-east coast in the Massim district ; but in the islands off the south-east end of New Guinea (the D'Entrecasteaux Islands, the Trobriands and the Marshall Bennet group) the fishing-kite
reappears in an environment mainly of Melanesian culture (Massim). Dr C. G. Seligmann tells me that he was informed that the fishing-kite is employed on Normanby Island in the D'Entrecasteaux group. It is certainly used freely in Dobu, an island lying between Normanby Island and Ferguson Island, at the east end of Dawson Strait. Sir William MacGregor ${ }^{1}$ has described the apparatus and its use in Dobu. According to his description, the kite is 'constructed of four leaves, each about a foot long and three to four inches broad.


Fig. 6. Dobu Island.
To this are attached two strings, one probably not less than a fourth or even a third of a mile in length, but it may, for fishing from the beach, be much shorter. The other end of this is in the hand of the fisherman, and by it he regulates the position of the kite. The other string attached to the kite is long enough to reach the water, and may be from one to three hundred yards in length. To the lower end is attached, instead of a hook, a small tassel about half an inch thick and some three or four inches long, made of spider's web. The fisherman seats himself in a small canoe, proceeds to sea,

[^316]and flies his kite, so as to keep the tassel of spider's web bobbing on the water. The fish that catches this entangles its teeth in the loose, soft, elastic bunch of spider's web, from which it cannot disentangle itself until it is quietly lifted into the canoe by a small triangular net mounted on a forked stick. The spider's web is procured


Fig. 7. Dobu Island.
from a certain kind of spider found at Dobu. The animal, or a number of them, is tossed on a long cleft reed or bamboo until a close double tissue of web about three to four inches broad and four to six feet long is obtained. These are laid past to furnish material for the fishing tassel as may be required' (Fig. 6). The leaves of which the kite is made have been identified as those of

Morinda cissifolia and are sewn together and stiffened with a framework of strips of palm mid-ribs fitted longitudinally and transversely.

The native name of the gar-fish is dimwara.
In 1909 the Hon. J. H. P. Murray kindly procured for me one of the Dobu fishingkites (Fig. 7), and ascertained that the local name for it is dauni. I have lately also received several examples of this apparatus from Mr D. Jenness, who recently spent nearly a year in the D'Entrecasteaux Islands. He also sent me two of the frames upon which the spider's web is collected (Fig. 8). Mr J. H. P. Murray states $^{1}$ that a hook is occasionally concealed in the spider's web tangle. This is the only reference I have to the practice of reinforcing the tangle-lure with a hook. One of the cobweb lures is shown in Fig. io.

The Rev. George Brown ${ }^{2}$, quoting the Rev. W. E. Bromilow, gives an account of kite-fishing, though without stating the locality referred to. We may, however, infer from the native names given in the description, that it is the island of Dobu. The native names are as follows: gar-fish, dimwara; cobweb tangle, mwamaikua; kite, daune; string, nosanosa; winder, 'oapenu; tail of string, iuiu; ornamental flag, doe.

A specimen of the spider whose web is most commonly, though not exclusively, employed for making lures has been sent me by Mr Jenness, and is shown in Fig. 9. It is quite common in the houses and the bush.

Miss Beatrice Grimshaw has described ${ }^{3}$

Fig. 8. Dobu Island.

[^317]the use of the fishing-kite on Kitava Island in the Trobriand group, though, unfortunately, she gives no figure of the apparatus. The kite is described as made of dried banana leaves stretched on twigs. Attached to the fishing-line 'was an object somewhat resembling a tennis racquet, strung across with a mass of yellow, strong, silky net, which is obtained by twirling the frame round and round in one of the great bush-spider's webs. This frame is left to trail loose in the water, while the kite is flown above the sea...a long, thick tassel of twisted spider's webs is sometimes trailed in the water instead of the frame, with


Fig. 9. Dobu Island. the same result.' According to this description the collecting frame itself, covered with the web, is used frequently as the lure. This does not seem to apply to other localities, and one would like further verification of this practice. It is difficult to see how so large and relatively heavy an object could successfully be caused to play lightly over the surface and prove an attractive lure, as a substitute for the light tassel of spider's web which usually prevails. Miss Grimshaw does not make it clear whether she actually saw the frame so used.

The practice of kite-fishing for garfish was seen by the Cooke-Daniels expedition in the Marshall Bennet Islands, lying east-south-east of the Trobriand group, between the latter and Woodlark Island, and in 1907 I received from Dr C. G. Seligmann for the Pitt Rivers Museum one of
the kites from this group of islands (Fig. ir). The body of the kite is oval and composed of broad strips of palm-leaf sewn together with vegetable fibre. The central strip is prolonged below to form a tapering tail. A strengthening rod of palm mid-rib runs longitudinally from end to end and there are three transverse rods. The margin of the kite is stitched to prevent fraying out in the wind. In use, the kite is flown from a canoe as usual and the lure is of spider's web.

Passing eastward we meet with the fishing-kite again in the Solomon Islands, although it does not appear to be distributed over the whole group. 1 do not know of its occurrence in the large northern islands of Bougainville, Choiseul or Ysabel, and it seems to prevail rather in the south-easterly portion of the group.


Fig. 11. Marshall Bennet Islands. In the island of New Georgia, however, although I have no direct reference to the actual practice or to the apparatus, I have found evidence of the fishingkite being known in the district. Among some drawings made in 1895 for Lieut. B. T. Somerville, R.N., of H.M.S. Penguin, by a native of the Mungeri district of New Georgia, are two which represent fishing scenes (Fig. I2). Although it was not so stated by the native artist, I think it is quite clear that the scenes do actually represent fishing with a kite. In one of them (Fig. 12) the kite is clearly, if sketchily, indicated and is shown attached to the line held in the hand of a paddler seated in the stern of the canoe. From the kite descends a second line which
terminates in a large, more or less fusiform object (the spider's web tangle, no doubt) which is being seized by an 'impressionist' fish. A frigate bird is seen flying overhead. In the other sketch an almost identical scene is portrayed, but the kite itself is not indicated. We can none the less infer that it is intended, since the angle assumed by the line


Fig. 12. New Georgia, Solomons. points to there being something which supports it at this point, the analogy of the first sketch supplying the missing detail. Unfortunately neither the form nor the material of the kite as used in New Georgia is indicated, and I have never seen an actual example.

In the eastern part of the Solomon group, including the large islands of Malaita and San Cristoval, this method of fishing is commonly practised. H. B. Guppy described the process there in $1887^{1}$, a kite and spider's web tangle being employed in the usual manner. He adds the following very plausible suggestion: 'The kite swaying in the air offers some resemblance to an aquatic bird hovering over the water where a shoal of small fish occurs. It thus attracts the larger fish who are said to follow the movements of these birds, and are thus guided in the pursuit of the smaller fry. It is with this object that the natives of the Society group tie bunches of feathers to the extremities of the long-curved poles which, projecting from the fore-part of the canoe, support the lines.' This reference to the Society Islands is quoted from Ellis' Polynesian Researches, 1831, p. 148. It is quite likely that the gar-fish are attracted to the lure by what they take to be a bird flying overhead and apparently in pursuit of small fry, as they habitually feed

[^318]upon small fish swimming very near the surface, whose presence would be indicated by hovering birds. Whether,


Fig. 13. Malaita.
however, this is the primary or secondary use of the kite is not clear.

An excellent description of kite-fishing for gar-fish (walelo) in Malaita is given by T. W. Edge-Partington ${ }^{1}$ (Fig. I3). The kite (rau) is made from the leaf of the sago palm, or ivory nut tree. The centre of the kite is made of a wide strip of leaf including its mid-rib which forms a longitudinal, central support, and is prolonged to form a 'tail' below. To each margin is fixed another strip of leaf, and cross-sticks above and below help to stiffen the kite transversely. To the upper of these transverse bars is attached a short cord to which the centre of the fishing-line is fixed. The latter is $60-100$ fathoms long and below the point of attachment is wound round the 'tail' of the kite from which it descends to the water. To the distal end is attached a spider's web tangle (laqua), which is in the form of a loop. The web is collected in the bush by winding it on to a long, thin, stiff leaf. It is then pushed off the leaf and worked into a long, thin rope, which is wound round and round the fingers until it forms a loop about two inches long. This is attached to the fishing-line by means of a short cord ( $f a-l o$ ). The loop swells out when it gets wet and increases in size. The fisherman holding the end of the line in his teeth paddles away up wind, keeping the kite flying and the lure playing over the surface. In 1888 I received from Dr R. H. Codrington for the Pitt Rivers Museum, one of the spider's web lures from Malaita (Fig. 14), evidently made in the manner described by Mr T. W. EdgePartington.

In the British Museum there is a palm-leaf fishing-kite from the Solomon Islands ${ }^{2}$ (Fig. 15) which resembles in


Fig. it. Malaita. general form the Malaita type, being furnished with

[^319]lateral ' wings,' though differing somewhat in detail from the form described by Mr T. W. Edge-Partington. A similar type is represented in a clever picture by Mr Norman H. Hardy, which was published in the Illustrated London Nerws (Fig. 16). Mr Hardy does not state in the description the particular island referred to in his sketch, but he has since informed me that it is Malaita. He describes the kite as being of palm-leaf stitched together, and the lure as being of spider's web. This method of fishing, he says, is usually practised in a lagoon inside the coral reef and when the wind is not too strong. The resemblance of the kite


Fig. 15. Malaita. to a hovering bird is well brought out in the picture, though the flight-line and fishing-line appear rather short.

I have no reference to the employment of the fishingkite in the island of San Cristoval, but in the Pitt Rivers Museum there is a small fishing-kite from the little island of Santa Anna (Owa Raha) lying immediately off the south-east end of San Cristoval. It was collected by Dr R. H. Codrington (Fig. 17). It is constructed as usual from strips of palm-leaf sewn together, the central strip including its mid-rib which forms the central support or stiffening rod. There are two transverse rods and at the points where the ends of these meet the margins of the kite, little clips of palm-leaf are added to prevent the margins from tearing.

I have come across a few other references to kite-
fishing in the Solomon Islands, but the exact localities


Fig. 16. Malaita.
are not given ${ }^{1}$. It seems that the method is employed somewhat widely in this group, though it would appear to be confined to that portion of the Solomon Islands which is included in the British sphere of influence, as I have no reference to its occurrence to the north of the Anglo-German dividing-line.

Lastly, the limit of the easterly range of this ingenious fishing-contrivance is found in the Santa Cruz group. This locality is referred to by Dr Codrington (l.c.), and he gave to the Pitt Rivers Museum at Oxford a specimen of the fishing-kite from


Fig. 17. Santa Anna, Solomons. the Reef Islands of Santa Cruz (Fig. 18), complete with line and lure made of a tassel of cobweb (Fig. I9). Like the Solomon Islands examples

[^320]the kite is made of strips of palm-leaf sewn together and strengthened with thin longitudinal and transverse rods. The kite is rectangular in shape and is furnished with bands of palm-leaf which run diagonally from the mid-rib to the ends of the main transverse rib and are continued


Fig. 18. Reef Islands, Santa Cruz.
beyond the latter as streamers. The mid-rib is prolonged below the kite into a long tail.

From the geographical distribution of the fishing-kite as above given, it will be seen that there are two main areas of dispersal, (I) the Malayan Archipelago, where this method of fishing is practised sporadically from Singapore in the west to Gisser Island and Karakelang in
the east, (2) the Melanesian area where it occurs sporadically in the islands of the Massim district of British New Guinea, and in the Solomon and Santa Cruz groups. It would seem that the whole area of distribution is included within the parallels of about $11^{\circ} \mathrm{S}$. and $5^{\circ} \mathrm{N}$. latitude, and about $103^{\circ} 50^{\prime} \mathrm{E}$. and $166^{\circ} \mathrm{E}$. longitude (see maps at end).

The question arises whether this specialized method has arisen independently in the two main regions where it is found, or whether the whole dispersal originated from a single original centre where the process was invented.

In spite of the somewhat long gap of about $20^{\circ}$ in the continuity of distribution, extending between eastern Ceram and the Massim Islands of New Guinea, I think that it will be agreed that kite-fishing has undoubtedly originated in one centre only, at some point within the Malayo-Melanesian area, and that the whole series is referable to one common origin. The linking evidence derived from the apparatus itself and its use is striking enough and may be summed up briefly as follows: (I) the fishing-kite is employed throughout its distribution exclusively, apparently, for the capture of the gar-fish (belone) ; (2) the


Fig. 19. Reef Islands. method of its use is, except for minor modifications such as the occasional employment of a rod, the same throughout ; (3) it is constructed of leaves or of leaf-strips everywhere, though the shape differs locally and depends to a great extent upon the kind of leaf employed; (4) the form of the lure and capturing-contrivance is important in this connection, (a) the cobweb tangle, which is chiefly characteristic of the Melanesian area where it is the invariable accompaniment of the kite, is also used in Gisser (Ceram) and
supplies an important link bridging the gap between the eastern Malayan Islands and Melanesia, $(\beta)$ the use of a baited running-noose extends from east to west in the Malayan Archipelago (Banda Sea, Java, Singapore) and serves to unite the sporadic occurrences in this region; (5) the use of a rod from which the kite is flown occurs in precisely the same districts as the running-noose.

The occurrence of the cobweb lure in Gisser is of particular interest, as, to the best of my knowledge, this very specialized form of lure is found only in conjunction with the fishing-kite and does not occur outside the geographical range of this appliance. Since it is highly improbable that it was independently invented in identical form and for an identical purpose both in eastern Ceram and in Melanesia, it affords valuable evidence of continuity of dispersal, in spite of the 1200 mile gap which intervenes between Gisser and the nearest locality recorded within the Melanesian culture area.

As regards the original home and centre of dispersal of this interesting fishing-appliance, the evidence seems to point to the eastern portion of the Malayan Archipelago, in the neighbourhood of the Banda Sea, as the region in which it was invented. As has already been pointed out, the use, on the one hand, of the rod and of the running-noose has its easternmost limit in this region, and, on the other hand, the employment of the cobweb lure finds its westernmost limit there; so that the details which are especially characteristic of the East Indian Archipelago and of Melanesia respectively meet at this point.

In spite of the statement made by Skeat that the fishing-kite is 'well known' in Singapore, I have, after many enquiries, been as yet unable to learn that the apparatus either is or has recently been in common use there, and I have so far failed to procure a specimen from the district. The South Kensington model (Fig. r) to which I have called attention, remains the chief
evidence which I have of the fishing-kite at Singapore. Dr P. N. van Kampen has suggested to me that it is likely that the occurrence of this method of fishing at the south end of the Malay Peninsula may be due to immigrant fishermen from Java. The Singapore kite differs, it is true, from the Javan form both in shape and material, but so do the kites in other districts which culturally are obviously closely related to one another and which geographically are nearly adjacent. On the other hand, the employment in Singapore of a fishing-rod with terminal ring or 'eye' through which the flight-line passes, and also the use of a baited noose instead of a hook or other catchingappliance, find their counterpart in the Javan seas, where kite-fishing is regularly practised.

Dr van Kampen has further suggested that the fishingkite may have been introduced into West Java and Bawean Island by Buginese from South Celebes, whose influence upon Javan culture has been considerable as a result of their bold seamanship and roving disposition. If the Buginese are not themselves credited with the employment of the fishing-kite, they have at least had ready access to islands in the Moluccas where this method of fishing obtains. It may further be pointed out that the form and material of the Javan fishing-kite (Fig. 2) are practically identical with those of the fishing-kite in Karakelang, in the Northern Moluccas, as also with those of the kite flown for pleasure in Celebes, while the use of the rod and noose (which, as has been seen, have also reached Singapore) links the Javan usage with the methods employed in the Banda Sea and, perhaps, Ternate.

Hence the eastern area of the Archipelago exhibits, in one island or another, all the characteristics of the advanced western kite-fishing methods, and has some claim to be regarded as the original centre of dispersal in a westerly direction through Java to the Malay Peninsula.

Similarly, the less specialized methods surviving in

Melanesia (where the rod is not used for this purpose) can be linked with those of the Eastern Asiatic Islands, whence they were probably derived. In Karakelang and sometimes in the Banda Sea, the kite is flown by hand after the Melanesian fashion and without the intervention of the rod, and the use of the cobweb lure in Gisser Island in precisely the same manner as in Melanesia is very significant, as this correspondence can hardly be fortuitous.

When we recall the very numerous appliances which are common to the Malayan Archipelago and Melanesia, evidencing an early and perhaps prolonged current of culture-drift from the former to the latter region, we need feel no surprise at the fishing-kite furnishing a further striking instance of western influence upon Melanesian culture. It is most probable that this appliance reached its most easterly home, in the Santa Cruz group, through the same agency as brought thither the Malayan or Indonesian loom and the stone-weighted fishing-trimmer (the latter widely dispersed in Melanesia), and which disseminated the peculiar form of sistrum of coconut shells employed in the capture of sharks both by the Malays and by many Melanesian peoples and even some Polynesians. One may also refer to the distribution of a small but special form of fish-trap made from the naturally barbed leaf-stems of rattan which is found not only in New Guinea, New Britain and the Solomon Islands, but also occurs in an identical form in Sumatra. The practice and details of chewing the betel-nut may further be cited in confirmation, but I will not now multiply the number of Malayo-Melanesian culture affinities. From the few examples which I have mentioned out of the many which might be quoted, it is sufficiently clear that evidence of an extensive culture-contact between the Asiatic Archipelago and Melanesia is very strong, and there can be little doubt that the fishing-kite was introduced into Melanesia from the west as a result of contact with proto-Malayan or with Indonesian culture.

The form of the fishing-kite itself is locally very variable within the area of Melanesian culture, and it is not easy without more information in detail to suggest a phylogeny for the local varieties. The most constant features in connection with this apparatus in the whole Melanesian region are the flying of the kite by hand from a canoe, the cobweb lure and the quarry (gar-fish). Without further evidence it is difficult, perhaps, to form definite conclusions as to whether the practice of fishing with a kite was introduced originally into some one locality within the Melanesian culture-area, and spread thence by a gradual process of dispersal from island to island and from group to group, or whether various parts of Melanesia and the Massim Islands owe the idea to direct and independent influence from the Eastern Asiatic Islands, where the cobweb lure occurs in conjunction with the hand-flown kite. It is quite possible that this appliance was independently brought into the Eastern Papuo-Melanesian (Massim) area, on the one hand, and Melanesia proper on the other. At the same time, when we consider that both the racial and the cultural characteristics of the Massim Islands are very largely traceable to a Melanesian origin, there is very little reason for supposing that the fishing-kite reached the Eastern New Guinea Archipelago otherwise than as one of the accompaniments of the west ward culture-drift from the Southern Solomon Islands.

Again, although it is not unlikely that the fishingkite may have spread eastward from the Solomon Island group into the Reef Islands and Santa Cruz group, a theory which appears plausible in view of the original introduction of this appliance from the Asiatic Islands in the far west, there still remains the very possible contrary alternative.

The Southern Solomon Islands have from time to time been influenced by accidental immigrants from Santa Cruz, wafted thither, no doubt, by the south-east trade
wind and borne upon the south equatorial current, and Dr Codrington has stated ( $o p$. cit.) that 'It is a not uncommon thing that canoes should be blown from Santa Cruz and the Reef Islands to Malanta and Ulawa,' and that men arriving in this manner 'were received as guests, sometimes establishing themselves after a while by marriage...' The Santa Cruz group affords in one of its appliances, the weaving-loom, evidence of more or less direct and almost exclusive influence from the Asiatic Islands, and the practice of the art of weaving is a very striking feature in Santa Cruz culture owing to its isolation in the Melanesian area ${ }^{1}$. The fishing-kite may very likely have been brought from the Asiatic Islands more or less directly to Santa Cruz by those who introduced thither the loom from the same region, and it is by no means impossible therefore that the subsequent dispersal of the fishing-kite through Melanesia may have originated from Santa Cruz. The direction of the prevailing trade wind and of the vigorous south equatorial current favours this view. Many of the canoes which have drifted from the latter group to the Southern Solomon Islands are likely to have carried on board the kite-fishing equipment which would thus readily have become established in Malanta (Malaita) and the neighbouring islands as a derivative from Santa Cruz. That the loom should not have accompanied the fishingkite is not to be wondered at, since it is unlikely that this domestic appliance would be carried on board of canoes accidentally driven from their own shores, and is only likely to have accompanied an intentional migration.

Further information will be required before any definite conclusions can be arrived at in regard to the probable lines of dispersal, but I may briefly summarize my foregoing remarks as follows. The evidence to which

[^321]I have had access so far seems to suggest that the original home of the fishing-kite was somewhere in the eastern area of the Malayan Archipelago, probably in the Banda Sea or the Moluccas; that the hand-flown kite together with the peculiar type of lure made from spider's web was transmitted from this region in an easterly direction to Melanesia proper, along a line of culture-drift ; that from the Melanesian Islands it was carried across in a westerly direction from the Southern Solomon Islands into the Massim Islands of South-East New Guinea; that from its original home in the Eastern Asiatic Islands it spread also in a westerly direction after having become slightly more specialized through the addition to the equipment of a rod from which the kite was flown and of a baited running-noose, and in this form the fishing-kite was transmitted via the Javan seas to the Malay Peninsula. According to this view, the whole area of distribution must be a connected one. That the practice of fishing with a kite is a fairly ancient one cannot, I think, be doubted, and it is very probable that its origin must be referred back to pre- or proto-Malayan invention.

I must conclude with a reference to one other part of the world, not already mentioned, where the fishing-kite has been employed. I have purposely omitted this occurrence from my list as in this instance an independent invention of this practical employment of the kite is apparently involved. The locality referred to is the coast of England. In reading the Daily Mail of September 2I, I90I, my eye was arrested by the following head-lines: 'Sea fishing by Kites. The remarkable Invention of an Enthusiastic Angler.' 'A remarkable novelty in use during the holiday season.' It appeared that some ingenious fisherman had hit upon the idea of utilizing box-kites flown from a long wire, for carrying a number of baited fishing-lines out to sea with the help of an off-shore breeze, so that sea-fishing from the shore
became practicable (Fig. 20). Much credit is doubtless due to the twentieth-century civilized enthusiast, but in giving him his due meed of praise, we must not overlook a fact of which he was presumably not aware, which is that a device, which in highly-cultured England was only invented some dozen years ago, has been in use in the Eastern Seas probably during many centuries among


Fig. 20. England.
peoples whom we describe as 'barbaric' or 'savage.' Had the Daily Mail angler been aware of this fact he could hardly have refrained from giving full credit for priority of invention to these distant peoples, who have so long employed this ingenious device, and many of whom must be regarded as still existing under the primitive conditions of Stone-Age culture.

Henry Balfour.

## LIST OF ILLUSTRATIONS

Fig. I.-Malays of Singapore kite-fishing with rod and running-noose. From a model exhibited in the collection of ship and boat models at South Kensington, London.

Fig. 2.-Fishing-kite of Polypodium leaf used with rod and noose, north coast of Bantam and Batavia Bay, Western Java; also employed in Bawean Island. After Dr P. N. van Kampen, De Hulpmiddelen der Zeevisscherij op 'Gava en Madoera in gebruik, 1909, Pl. xvi.

Fig. 3.-Kite-fishing with rod and noose or hook, Banda Islands, Eastern Malay Archipelago. After Dr Max Weber, H.M. 'Siboga' expedition, 1899-1900, Leiden, 1902, p. 60.

Fig. 4.-Kite-fishing without rod, Banda Sea. After Jacobsen, from Dr L. Frobenius' Völkerkunde, 1902, Fig. 240.

Fig. 5.-Fishing-kite (hand-flown) with hook, Karakelang Island, Northern Moluccas. After Dr Max Weber, l.c. p. 6 I.

Fig. 6.-Kite-fishing off Dobu Island. After Sir W. MacGregor, Ann. Rep. on British Nєw Guinea, 1897-99, Pls. i and ii.

Fig. 7.-Fishing-kite, daune, of Morinda leaves with lure of spider's web, Dobu Island, British New Guinea. Given by the Hon. J. H. P. Murray to the Pitt Rivers Museum, Oxford, 1909.

Fig. 8.-Bamboo collecting-frame upon which a store of spider's web is gathered for making into lures, Dobu Island. Collected by D. Jenness. Pitt Rivers Museum.

Fig. 9.-Spider whose web is most commonly collected for making lures, Dobu Island. Collected by D. Jenness. Pitt Rivers Museum.

Fig. 10.-Spider's web lure used with the fishing-kite, Dobu Island. Collected by D. Jenness. Pitt Rivers Museum.

Fig. ir.-Fishing-kite of palm-leaf, Marshall Bennet Islands, Massim Group, British New Guinea. Collected by the Cooke-Daniels Expedition, 1904. Presented by Dr C. G. Seligmann to the Pitt Rivers Museum.

Fig. 12.-Drawing representing kite-fishing scene by a native of Mungeri, New Georgia, Solomon Islands. Collected by Lieut. B. T. Somerville, R.N., H.M.S. Penguin, 1895, and given by him to the Pitt Rivers Museum.

Fig. 13.-Fishing-kite of palm-leaf and cobweb lure, Malaita (Mala), Solomon Islands. After T. W. Edge-Partington in Man, igi2, p. [IO].

Fig. 14.-Spider's web lure, Malaita. Collected by the Rev. R. H. Codrington, D.D., and presented by him to the Pitt Rivers Museum.

Fig. 15.-Fishing-kite of palm-leaf, with cobweb lure, Malaita (?). British Museum. After J. Edge-Partington, Album of the Pacific Islands, I, Pl. 197, Fig. i.

Fig. 16.-Kite-fishing, Malaita. After a picture (a portion only) by Norman H. Hardy, published in the Illustrated London News, 1912.

Fig. 17.-Fishing-kite of palm-leaf, Santa Anna Island (Owa Raba), San Cristoval, Solomon Islands. Given by the Rev. R. H. Codrington, D.D., to the Pitt Rivers Museum, I 903.

Fig. 18.-Fishing-kite of palm-leaf, Reef Islands, Santa Cruz Group, Melanesia. Collected by the Rev. R. H. Codrington, D.D., and given by him to the Pitt Rivers Museum.

Fig. 19.-Spider's web lure used with fishing-kite from the Reef Islands. Same data as Fig. 18.

Fig. 20.-Kite-fishing on the coast of England. After a sketch published in the Daily Mail, 21 September, 1901.

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Maps illustrating Geographical
Distribution of Kite-Fishing.

## K. Balfour fecit.

## THE OUTRIGGER CANOES OF TORRES STRAITS AND NORTH QUEENSLAND

Torres straits.
The old type of canoe of the Torres straits islands was a fine vessel possessing several interesting features, and it is a matter of some importance to determine whether it was a local invention or whether it was derived wholly or in part from elsewhere.

The essential characteristics were as follows : -a hull was cut out of a single tree-trunk, the ends of which


Fig. 1. Section of a Torres straits canoe.
gradually sloped up to a blunt point; a wash-strake ${ }^{1}$ (about $I \circ \mathrm{~cm}$. high) was lashed on the upper edge of the sides of the hull, and a long triangular fore wash-strake was similarly attached to each wash-strake at the bow, the front end of which had a small deck covering; the front ends of the wash-strakes and fore wash-strakes were closed in by a nearly vertical fore weather-board (Fig. 17). The double outriggers consisted of two transverse booms on each side about $\mathrm{I} \cdot 83 \mathrm{~m}$. ( 6 ft .) apart, which were lashed on to the wash-strake and projected $3-6 \mathrm{~m}$. ( $\mathrm{I}-2 \mathrm{ft}$.) on one side and some 3 to 3.7 m . ( $\mathrm{IO}-\mathrm{I} 2 \mathrm{ft}$.) on the other (Fig. I). The long ends of each pair of booms

[^322]were connected with a pointed float by means of two pairs of oblique sticks diverging upwards. A platform was built on the booms, projecting a foot or two beyond the hull of the canoe and was provided with a crate on each side. Occasionally an awning was placed over the platform.

The sails were large oblong mats, and were erected in the bow. The front and larger one-sometimes it was the only one-was supported by two diverging temporary masts stepped in a shoe. The second sail was supported by one mast. For details of rigging, methods of sailing, decoration of a canoe, and other particulars the reader is referred to the 'Reports of the Cambridge Anthropological Expedition to Torres Straits,' vol. Iv., I 91 2, pp. 205-217.

I did not discover any tradition in Torres straits about the canoes of ancient days, but fortunately Dr G. Landtman has supplied this deficiency from information obtained in New Guinea. The original inhabitants of Daru, the Hiamu, who were of the same stock as the Western Islanders of Torres straits, were almost exterminated by Kiwai-speaking peoples of Kiwai and the coast of Daudai, the remainder migrated in their canoes to the islands. The small existing native population of Daru is of mixed origin, and the Hiamu are now regarded as semi-mythical. The Hiamu as well as the Kiwai people had a ceremony (the Horiomu ceremony) connected in part with dugong fishing but more especially with the spirits of recently deceased persons. The preliminary portion of the essential part of the ceremony consisted of a race between model dug-outs, which in all probability were provided with single outriggers. Once upon a time the Daru people had a Horiomu ceremony at which one of the toy canoes could not be recovered and drifted to Yam island. According to one tale it was found by Naga at Yam, who was greatly surprised at that way of making a canoe, never having seen a dug-out before, and decided to find the place whence it came. He equipped a canoe as he
and all the Islanders (Eastern and Western) were wont to make them. It consisted of a solid trunk into which were inserted several sticks supporting a small platform, across the platform were laid two poles, to the ends of which a float was attached by means of slanting sticks as at the present day. Naga went to Daru where he obtained a real dug-out, and this was said to be the first instance of the canoe traffic which was afterwards of such great importance.

The old mainland canoe had no wash-strake, the single outrigger was on the starboard (right) side, and a small platform, patara, was built round the aft boom of the outrigger. The sails were one, two, or more in number and were rigged at the bow more or less side by side, this was rendered possible by the sails having the form of an elongated isosceles triangle with apex pointed downwards.

Once the islanders had become acquainted with the new type of canoe they abandoned their old pattern, as the solid trunk was heavy and difficult to handle and the waves washed over it. The rougher seas of the straits induced them to add a wash-strake, and they replaced the single outrigger by the earlier double one. The old sail was composed of strips of pandanus leaf sewn together and was known as tiro, but the islanders also used their plaited oblong mats as sails; this type of sail (Kiwai, sawa; Mawata, hawa), the wash-strake, and the double outrigger have since been adopted by the Kiwai-speaking peoples (Landtman, MS.).

I obtained from Maino of Tutu a variant of the tales collected by Dr Landtman ('Reports,' v., p. 48), which suggests that a special type of canoe was one element in the cultural drift associated with the names of Naga and Waiat.

If we may accept these traditions as evidence, it seems, (I) that the original double outrigger craft of Torres straits was a very rude affair, (2) that a dug-out with a single outrigger was introduced, (3) that the original
double outrigger of the straits replaced the single one of the introduced canoe, and (4) that a wash-strake was added.

It is interesting to find that Neuhauss (p. 347, Figs. $32,248,249$ ) describes a very simple craft from Sialum, G.N.G., a few miles south of lat. $6^{\circ}$ S. The hull (Fig. 2) consists of an unhollowed log of driftwood, the ends of which have been roughly sharpened, each 'side' of the canoe is made of a rail supported by four upright sticks, the craft is steadied by a single outrigger, the two long booms of which are lashed on to the top of the railing in its centre and are attached to the float by two pairs of crossed sticks. There is a small central platform (omitted in Fig. 2). The correspondence with the traditional Torres straits type is


Fig. 2. Canoe from Sialum, G.N.G., after Neuhauss.
very close, the only differences being in the single outrigger and a slight variation in the attachment of the float.

The most important features of the Torres straits canoe are the double outrigger, the two transverse booms, the method of attachment to the float, and the platform with its crates.

Mouth of the Fly river.
MacGregor says, 'On the lower Fly, the canoes are small, each with a single long slender outrigger at a great distance from the canoe' (p. 55). The Fly river type, as the form with a single outrigger may be called, has two booms and a somewhat variable stick attachment (Fig. 3). Dr Landtman informs me that the double outrigger canoe
was in former times confined to the islands of Torres straits, but at the present time these large sea-going canoes are used along the whole coast of Daudai and in the islands of the Fly river delta, though not further up the Fly. He states that the single outrigger canoe is in exclusive use for at least 70 miles up the Fly, and in all the villages on the coast and in the Fly river delta the single outrigger canoes are used for short trips and for going up the creeks. For example, although the Binaturi river, near Mawata, is fairly wide at the mouth the people never travel up the river in their large double outrigger canoes, but always


Fig. 3. Canoe at Sumai, Kiwai, Fly river ; after a photograph by G. Landtman.
use their single outrigger craft for this purpose. Thus in all the villages of this coastal and delta district where they have double outrigger canoes, single ones are used as well. So far as he saw, the canoes up the Bamu river are without outriggers. He also informs me that the canoes are not now made in Daudai or in the southern part of Kiwai island, but at various spots and islands in the mouth of the Fly, the most famous coming from Dibiri. The canoes when bought by the islanders have a single outrigger for which a double one is substituted by them.

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## North Queensland.

I do not propose to refer to the rafts, bark canoes, or simple dug-outs of Australia, which have been dealt with by N. W. Thomas and W. E. Roth, but I shall confine myself to the dug-outs with outriggers, a task which has been rendered easy by the admirable papers of these writers.

## Double Outrigger.

According to Roth canoes with a double outrigger extend from Batavia river in the Gulf of Carpentaria, round Cape York to Claremont point, Princess Charlotte bay (lat. I $4{ }^{\circ}$ S.), but Macgillivray 'found a small canoe with two outriggers concealed on shore among some


Fig. 4. Batavia river canoe, N. Queensland, from Roth.
bushes' at Fitzroy island, 500 miles south of Cape York (II. p. I 5).

Roth says, 'The original form of double-outrigger dugout is found on both shores of the Cape York Peninsula; at the Batavia River only, on the Gulf side, and in the neighbourhood of Cape Grenville [lat. $12^{\circ} \mathrm{S}$.] on the east coast. It is noteworthy that now and again during the north west season foreign dug-outs are washed ashore, at the mouth of the Batavia' (igio, p. ir). The bow of the Batavia river canoe (Fig. 4) is produced as a sort of shelf on which the hunter stands when on the look-out for turtle, etc., there is only a slight projection at the stern. The sides tumble home but slightly. There is no washstrake. The outrigger is placed somewhat aft of the
centre of the hull, and consists of two straight booms which rest on the edges of the hull, to which they are fastened by ropes which pass through holes in the side of the canoe. The attachment to the float consists of two oblique sticks which in most instances are lashed to the fore side of each boom and are inserted in a single hole in the float, but when one hole gets too much worn and the sticks become loosened another hole may be made in close proximity. The float is merely a log. Sometimes a simple platform is constructed over the centre of the outrigger booms (Roth, 1910, p. 12, Fig. 10; Wood,


Fig. 5. Outrigger boom of a Batavia river canoe, after a photograph by Roth.
Figs. on pp. 7, 47). Dr Roth informs me in a letter that the canoe figured on Pl. L, No. 3 (1908), is supposed to be identical with his Fig. io (1910). In the photograph, but not in the sketch, each boom is supported by a spar which passes through the sides of the canoe and is lashed at its ends to the boom (Fig. 5).

Another example of a supporting spar to the outrigger boom is at Nissan, where the tsine canoe (Fig. 6) has a single outrigger with two booms and unilateral attachment by means of two divergent sticks (method II. $4 d$, cf. p. 15). The stay is called kisiu (Fr. p. 298). Friederici also informs me that the single outrigger canoes of northern Bougainville have a similar supporting stay, but here there are no canoes


Fig. 6. Supporting spar to the outrigger boom and stick attachment of a tsinne canoe, Nissan, from original sketches by Friederici. with double outriggers. Nissan (Sir Charles Hardy
islands), between Bougainville and New Ireland, is an outlier where a canoe with a double outrigger, kŏp, occurs together with canoes with a single outrigger and without outriggers (Fr. pp. 296-298; Thilenius, in Graebner, 1905, p. 5 I).

The Batavia river type differs from the Torres straits type in the absence of a wash-strake, fore wash-strake, and crate on the platform, and in the simpler method of the attachment of the float.

The brothers Jardine were greatly struck with the ingenuity displayed by the tribes who range from Cape York to Newcastle bay. Two outrigger booms are 'laid athwart having a float of light wood fastened across them at each end.... A stage is formed on the canoe where the outriggers cross on which is carried the fishing gear, and invariably also fire. The canoes are propelled by short paddles, or a sail of palm-leaf matting when the wind is fair' (p. 83). Presumably these canoes were of the Torres straits type, as the Cape York natives had long had relations, often of a belligerent character, with certain of the islanders, more especially the inhabitants of Muralug. The account is, however, so imperfect that it is impossible to determine the type to which this canoe belonged.

Jukes (r. pp. 105-106) first described another type of canoe with two outriggers which he saw at Cape Direction (lat. $13^{\circ}$ S.), and Roth (igio, pp. I2, I3, Fig. i I, Pl. VI, Fig. I [the locality should be Claremont, not 'Batavia river']) has described and figured the same form which he says extends as far south as Claremont point (lat. 14 $4^{\circ}$ S.). The shape of the hull resembles that of the Batavia river canoe, but the outriggers occupy the posterior half of the canoe, the aft boom being at the stern. The booms are stated to pass through the sides of the canoe (Fig. 7) but in the photograph they appear to rest on the edges of it, probably both methods occur. The booms are lashed to pegs which are inserted through

## CANOES OF TORRES STRAITS

the sides of the hull below them, and their ends are fastened directly to the floats.

The backward position of the outriggers is the main feature of this canoe, which we may term the Claremont type, for which the only other parallels I have been able to find are in photographs by Guillemard of small canoes with double outriggers, two booms, and a direct attachment, from Sulu (i889, p. 206; G. Nos. 4, 180 , 217). It is not usual, except in east Queensland, for the booms of a simple dug-out to pass through the sides of the hull, otherwise this may be said to represent a primitive type with direct attachment.

The Claremont type differs from the Torres straits type to a greater extent than does the Batavia river type.


Fig. 7. Claremont canoe, N. Queensland, from Roth.

## Single Outrigger.

Roth refers to 'toy sailing boats made by the boys at Mapoon (Batavia river), with a single outrigger, always on the weather-side, which can be shifted from port to star-board and vice-versa as occasion requires; how far this innovation is due to civilising influences under missionary auspices, it is impossible to say' (1910, p. 16).

From the Flinders group in the south of Princess Charlotte bay (lat. $4^{\circ}$ S.) to Cape Grafton (lat. $17^{\circ}$ S.) the canoes have but a single outrigger which is on the starboard side. Roth states that this is 'the southern limit of the dug-out and that any such vessels found below this are not of local coastal manufacture' (igio, p. 13) ; in an earlier publication (1908, p. 161) he says

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that these canoes come down to about the neighbourhood of Hinchinbrooke island. The earliest record of this type that I can find is one by King (r. p. 209) in I8r9 at Weary bay, $15^{\circ} 55^{\prime} \mathrm{S}$.

The outrigger (Fig. 8) consists of from four to eight paired booms, there is a short space between the two members of a pair which lie side by side, and both booms pass through the walls of the canoe. The paired booms are arranged at intervals from stem to stern and are attached to a float of equal length to the canoe by means of single pairs of crossed sticks, one of the booms passing below the crossing and the other above (i910, Fig. 13, Pl. VI, Fig. 2, Pl. VII). 'Between the Flinders and the Endeavour Rivers two wash-boards are lashed on to the


Fig. 8. Cape Bedford canoe, N. Queensland, from Roth.
outer sides of the gunwale [edge of the canoe], with or without an intervening coil of tea-tree bark, and through their upper free margins the double booms are pegged' (1910, p. I3, Fig. i2; i908, Pl. I, Fig. 4 ('3')). Frequently at the fore end of the wash-strakes there are two pairs of outrigger booms close together, each pair having its crossed-stick attachment, and there is always a pair of booms in the bow in front of the wash-strake. For other illustrations of canoes without a wash-strake see Hutchinson, I. p. 49 ; and for those with a wash-strake, ibid. i. pp. 52, 58. This may be termed the Cape Bedford type.

## The Distribution of Outrigger Canoes.

Canoes with a double or single outrigger are confined to the Indo-Pacific area. They are absent, and so far as we can tell always have been, from the Americas and

Europe. In Africa they are restricted to the east coast from Zanzibar to Mombasa. Lane-Fox (Pitt-Rivers) states (p. 448) that Pegu (Burma) forms the most northerly limit of their distribution in Asia; they occur also in south India, the Maldives, and Ceylon. They are found all over Indonesia and Oceania, and in north Queensland. At the present day outriggers appear to be generally absent from Sumatra and some of the adjacent islands, e.g. Nias (Modigliani, p. 418). The outrigger seems to be absent from Java except the eastern extremity, and from many of the lesser Sunda islands as far as the Aru islands. So far as I am aware, outrigger canoes are extremely rare in Borneo, the few examples of its occurrence I hope to refer to elsewhere.

The main reason for the absence of outriggers from these islands seems to be a knowledge of the art of building sea-going plank boats, which have supplanted the older type, and an analogous change has taken place in the Solomon islands owing to a cultural drift from the Moluccas (Fr. 1913, p. 161). I feel considerable hesitation, however, in making definite statements concerning the distribution of outrigger canoes in certain areas, as I have been able to find little positive evidence one way or the other and we all know that negative evidence is full of pitfalls.

## Double Outrigger.

The double outrigger with two booms occurs in east Africa.

Wherever outriggers occur in Indonesia they are double, with the exceptions noted below. In the majority of cases only two booms are present, more especially in the smaller craft.

In New Guinea a double outrigger with four booms is found on Waigiu and neighbouring islets, and with four or more booms as far as Cape d'Urville: Geelvink bay is a mixed area, the double outrigger predominating in the

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western part of it, the single in the eastern (Fr. p. 251 ). I have not been able to hear of any outrigger canoe occurring along the whole west coast of New Guinea.

The double outrigger is at present almost entirely absent from Oceania except in the Nissan islands. Friederici points out that the names for the single outrigger canoe, tsinne, and for the double one, kŏp or kŭp, (both of which have two booms) are directly traceable to Indonesia, the latter being the same word as guban of the Sulu archipelago. The same applies to the Nissan terms for float, neăgă or niăg, and boom, hămăn, but here they have become reversed. He shows from linguistic and cultural evidence that Nissan had also been colonised from Indonesia, Buka, and elsewhere (Fr. II. pp. 296, 297; iII. pp. I 59 - I6 ). Guppy says that the general absence of outriggers is characteristic of the Solomons group, and adds, 'For seapassages, greater stability is sometimes given to the large canoes of the straits, by temporarily fitting them with an outrigger on each side, in the form of a bundle of stout bamboos lashed to the projecting ends of three bamboo poles placed across the gunwales of the canoe' (pp. I46, I49). Captain Fraser ( 1834, p. 74) in his account of the discovery of William the Fourth group refers to 'double outriggers,' but it is quite possible that the second outrigger may have been merely a long 'weather platform.' [Friederici says (ir. p. 243, n. 6) that this is the only record known to him of a double outrigger from 'Ruk'; these islands however are the Andema islands (William the Fourth is now known as Ant) belonging to the Seniavin group, Carolines, Ruk being about 6 degrees to the west.] Müller-Wismar (I 9 I 2, p. 245) alludes to a change of double outrigger into single as having occurred in the Pelew islands. Dr G. Brown (p. 350) states that the beautiful carvel-built sailing canoes of the Samoan islands had an outrigger on both sides. Friederici also says that the double outrigger no doubt occurred on the Marquesas at the time of the Mendaña Expedition (p.243). L. Choris
figures a canoe from Easter island with a double outrigger, two booms, and a direct tied attachment (Pl. X, Fig. I), this has been copied by Stolpe (p. 177, Fig. 9).

The only other places where such canoes occur are Torres straits and north Queensland.

## Single Outrigger.

Canoes having a single outrigger with two booms characterise the Indian region and are best known in Ceylon. In all those from south India, the Maldives, and Ceylon the booms are lashed directly to the float.

The Nicobar canoe has also two booms, but that of the Andamans has several, Mouat figures four (p. 315 ). Folkard says that the Sumatran craft known as jellores have sometimes only one outrigger (p. 481), and Rosenberg figures a sailing canoe, knabat bogoloe, with a single outrigger from Mentawi (Pl. XVIII, Fig. 9).

The single outrigger reappears in Geelvink bay, N.N.G.; at Mokmer, on the south coast of Wiak island, the large boats have two outriggers while the smaller have only one (Fr. p. 251) ; on the north coast of Jobi (Japen) the single outrigger greatly predominates; both types occur at Ansus; from Cape d'Urville eastwards only the single outrigger is found, it is continued throughout the Pacific and all round New Guinea to the Mekeo district, B.N.G., and is met with as far west as Orokolo in the Gulf of Papua. A single outrigger also occurs at the mouth of the Fly and on the east coast of north Queensland.

## Attachment between Float and Booms of Outrigger.

The main methods by which the float is attached to the booms of the outrigger may be classified as follows:-
I. Direct. The ends of the booms may be, (1) lashed to the float: Indian region, widely distributed in Indonesia,
north-east Queensland (Fig. 7), occasionally in Oceania (Fig. 14) ; or (2) inserted in the float: north Polynesia.
II. Indirect. (I) Moluccan, formed by a $\mathrm{U}^{-}, \mathrm{O}$-, or 6 -shaped piece of ratan (Fig. 9): it is typical of the Moluccas. A variety with crossed U-attachments (Fig. Io, A, B) occurs along the north coast of west New


Fig. 9. Moluccan attachments: A Batjan, B Ambon, c Banda. A and c after photographs by Guillemard (Nos. 334, 16 1) ; в after Friederici.

Britain and on the Witu (French) islands (Fr. pp. 244, 269 ; Stephan, p. 127) ; Friederici claims that this supports the linguistic evidence that one element of the people of the north coast of west New Britain belongs to the line Moluccas-N.E. Celebes-S. Philippines, that it reached its new home in one movement, and is relatively recent in Melanesia. Verguet figures somewhat obscurely (Fig. 110, p. 224), but does not describe, a double Moluccan


Fig. ıo. Double Moluccan attachments: A Nakanai, after Friederici ; b Káloga, French islands, after Stephan ; c San Cristoval, after Verguet ; D Tonga, Museum specimen.

U-attachment of the small étea canoe of San Cristoval (Fig. 10, c). Friederici states that 'the curved Moluccan attachment is extremely rare in Melanesia; I only know it in addition from Sikayana and Luaniua (Ongtong Java), where perhaps it is only due to south Solomons influence.

For the northern members of the chain of islands, Nuguria, Tauu and Nukumanu, which form a definite ethnic and linguistic group, possess the Polynesian stick attachment' (1913, p. 161). Woodford however records a somewhat different arrangement from Sikaiana (Fig. I3). It is interesting to find that the crossed U -attachment also occurred in Tonga (Fig. Io, D) where it is now obsolete (Basil Thomson, p. 343, and model in the Camb. Mus. of Arch. and Eth. presented by him).
(2) Halmaheran (Fig. in), consisting of a straight, bent, or forked spar which usually rests on an inner longitudinal spar connecting the booms of the outrigger : it has much the same distribution as the Moluccan, but


A


B


C

Fig. ır. Halmaheran attachments : A, B Batjan ; C Waigiu, after photographs by Guillemard, Nos. $328,336,305$.
predominates in the north of Ceram and in Halmahera (Fr. p. 239), and obtains in north New Guinea.
(3) Mixed, the fore boom has a direct and the aft boom a Halmaheran attachment: east Javan area, north Celebes.
(4) Stick; this may consist of (a) a single stick, (b) a $\perp$-shaped stick, (c) two vertical sticks on one or on each side of the boom, $(d)$ two divergent sticks on the same side of the boom (Figs. 4-6), (e) two or more divergent sticks on each side of the boom (Figs. 1, I2 A, I 5), $(f)$ one, two, or more pairs of divergent sticks crossed over the boom (Fig. 3), (g) one, two, or more pairs crossed under the boom (Figs, 2, 16), a Y-shaped stick on one (Fig. 13) or on each side (Fig. 12, B) of the boom,
and other analogous arrangements or combinations of the foregoing.

The Torres straits method (Figs. I, I2 A) is a stick attachment consisting of two divergent sticks on each side of the boom (method II. $4 e$ ); the same method is found on the neighbouring shores of New Guinea and at Kiwai island. Variations occur, however, which may be due to personal idiosyncrasy or to influences from outside. Thus one Mabuiag canoe with a double outrigger had the typical attachment on one side, while on the other


Fig. 12. Torres straits attachments : A typical ; B, C varieties seen at Mabuiag ; after photographs.
one boom had three sticks on one side, and two sticks and a Y-shaped stick on the other (Fig. 12, c). Again, a Mabuiag canoe with a single outrigger of four booms had an obliquely placed Y-shaped branch on each side of the booms (Fig. I 2, B). A canoe, evidently from the Marshall islands, in the Horniman Museum, Forest Hill, London, has a Y-shaped stick attachment. Quite recently Woodford has recorded a somewhat similar attachment at Sikaiana (Stewart island), east of Malaita in the Solomons. The canoe has a single outrigger with three booms (Fig. I3), each of which is attached to the float by a single forked stick, the central one having in addition two oblique sticks which cross over the boom. There is not, however, at present any evidence for a connection between the forked stick method of attachment in Torres straits and in Sikaiana.

Owing to the prevalence of the double outrigger in Indonesia one might expect the Torres straits type of canoe to have been derived directly from that region ; but difficulties arise when one considers the method of attachment of the float. The stick attachment appears to be entirely absent from the Indian ocean and Indonesia except in the Andamans and Nicobars, in which islands it will be remembered the canoes have a single outrigger. Mouat figures an Andamanese canoe with four booms which pierce the hull and are connected with the float by three sticks, the end of each boom rests on the crossing of two sticks and the third appears to be vertical (p. 315 ). Each of the two booms, deia due, of the Nicobar canoes is attached in a similar manner to the float, hentaha, by two sets of three sticks, heneme (Distant, frontispiece; Man, 188i, p. 293, Pl. XXIV, 1886, p. 436; Svoboda,


Fig. 14. Section of a kơp canoe, Nissan, from an original sketch by Friederici.
p. I, Pl. I ; Kloss, p. I 54). Canoes with a single outrigger and a stick attachment reappear on the east coast of New Guinea and in Melanesia, but are entirely absent throughout the whole of the East Indian archipelago.

We have seen (p. I2) that canoes with double outriggers are not quite unknown in Oceania. The Easter island example has a lashed direct attachment, as also has the kŏp of Nissan (Fig. 14). The combination of a double outrigger with stick attachment (method II. 4 e ) of the Torres straits canoe is unique so far as I am aware.

We must turn therefore to the single outrigger canoes, and we find that this is the characteristic type of Fiji and Samoa (Fig. 15) ; in Samoa the sticks are as a rule more or less vertical, whereas in Fiji those on the same side of the boom diverge from one another upwards as in the Torres straits canoe.

From photographs recently taken by Landtman the R.

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attachment of the float to the booms of double outriggers on the neighbouring coast of New Guinea seems to be as follows :-the typical Torres straits method obtains at Mawata and at Ipisia, Kiwai, but at Iasa on Kiwai there is also a central pair of sticks which crosses over the boom. In single outrigger canoes at Sumai, Kiwai, there are on each side of the boom two converging sticks which diverge from two other converging sticks, and a central stick, all of which cross their fellows from the opposite side over the boom (Fig. 3), and the same method occurs at Baramura.

I have already alluded to the similarity of the supporting spar and attachment in the Batavia river canoe and in the tstne of Nissan. A similar method of attachment is found at Liueniúa or Luaniua (Ongtong Java), Taguu or


A


B


C

Fig. 15. Stick attachments : A Fiji, after a photograph ; в Samoa, after Thilenius; c Samoa, after Brown.

Táuu (Mortlock islands), and Nuguria (Sable island) (Fr. pp. 299-301), and in the Marianne (Ladrone) islands (Folkard, p. $4^{62}$, and others). It is just possible that the unilateral two-stick attachment of the Batavia river canoe may be a simplification of the bilateral divergent twostick attachment of Torres straits, but against this view must be placed the different shapes of the respective canoes and other diverse details.

Captain Brierly in 1848 found dug-out canoes with a single outrigger at a river opening in the coast of Queensland opposite the Frankland islands (long. $146^{\circ}$ E., lat. $17^{\circ}$ $12^{\prime}$ S.), and was the first to note that 'both the canoes and catamarans at this place resembled others afterwards met with at the south-eastern part of New Guinea' (p. 304). Although a good number of figures of canoes from the

Central and Massim districts of B.N.G. have been published they are rarely clear enough to show the structural details, and there are many varieties of canoe in British territory east of the Gulf of Papua though they all agree in never having more than a single outrigger, the booms are numerous, the float is long, and at no great distance from the hull, the attachment consists of oblique sticks. Finsch (Taf. VI, Fig. 4) shows the attachment of a Teste island canoe which consists of two pairs of crossed sticks, the boom rests on the two crossings, and a short stick is similarly lashed to the under side of the crossings, but the


Fig. 16. Aoba canoe, New Hebrides, from an original sketch by Norman Hardy.
latter is not constant as it does not occur in Lindt's photographs. Judging from some of these the same arrangement, also without the lower short stick, occurs in Bertha lagoon, South cape, and C. W. Abel's photograph (p. 62) shows it for the vaga of China strait. Photographs by Lindt of Port Moresby canoes show the booms resting on the crossing of two sticks only, sometimes supplemented by one vertical stick.

Speaking generally the attachment by means of (usually) two pairs of sticks that cross under the boom (method II. 4 g ) extends from South cape, B.N.G., to Geelvink bay, N.N.G.

The usual attachment in the New Hebrides (Fig. 16)
appears to be that typical of the eastern shores of New Guinea ; but, judging from a photograph, a mixed type also occurs which consists of a pair of two sticks close together which cross under the boom, and four pairs of sticks which slant at a wider angle and cross over the boom (Imhaus, Pl. on p. 48). Norman Hardy's plate 60, p. 178, of a canoe at Rano islet, near Malikolo, shows three primary pairs of sticks which cross under the boom and four secondary pairs which more or less cross over it.

So far as the attachment is concerned, the Queensland canoe with a single outrigger may well have been derived from the region of south-east New Guinea, but I have failed to find anywhere a parallel for the twin outrigger booms which pass over and under the crossed sticks.

## Linguistic Evidence.

We have now to turn to the linguistic side of the problem. Ray states that 'the Eastern and Western languages of the Torres straits belong to two distinct stocks, the former connected with the languages of the New Guinea mainland, and the latter with those of Australia' ('Reports,' iII. p. 5II). Neither of them has any relation with the Austric family of languages, though a few loan words may be reasonably expected to occur owing to cultural influences that have come in from outside.

In the following list of names the Western term is placed first and the Eastern second: Canoe, gul, nar ; boom, tug, tug ; sticks, saiu pat (or sarim pati), kag; float, saima, sirib; wash-strake, garbad, bag; paddle, kaba, uzer.

On the adjacent coasts of New Guinea we find: at Dabu, canoe, gara. At Mawata, canoe, pei; float, harima. At Kiwai, general name for canoe and hull, pei; a large fine canoe, burai; double outrigger canoe, moto-moto [moto, house]; single outrigger canoe, tatako; boom, piu;
sticks, tugu; float, sarima (‘Reports,' irl. and Landtman MS.).

The names of the Queensland double outrigger canoes vary from area to area as among peoples speaking Papuan languages. For example, the Nggerikudi tribe, Batavia river: canoe, partara; boom, ar ('hand') ; attachment, landrui; float, ar-temma ('little finger') (Roth, I9IO, p. I5). Yaraikăna tribe, C. York: canoe, atu; float, tama, watari; paddle, wacari ('Reports,' iII. p. 275). Gudang tribe, C. York: canoe, anggania; boom, togo; float, charima (Macgillivray, II. p. 291). Otati tribe, C. Grenville: canoe, kowata ('Reports,' iII. p. 278). The Gudang names for the boom and float are the same as those of the Kauralaig of the Muralug group (togo and sarima), who speak a dialect of the Western Torres straits language (Macgillivray, iI. p. 29I).

The names of the Queensland single outrigger canoe and its parts are:-Koko-yimidir tribe, C. Bedford: canoe, wangga; boom, dabbul; attachment, kanna-kanna; float, darman; wash-strake, yirmbar (Roth, 1910, p. 15). Endeavour river: canoe, marigau. Cooktown: canoe, wangga, marrakau. Weary bay: canoe, berongaboy. Head of Walsh: canoe, murregan. Cairns: canoe, patchie (Thomas, pp. 74, 75). Of these canoe names marigau, patchie, etc., may be indigenous terms, but wangga seems unquestionably to be the waga (waka or wa) of the Melanesian languages of south-east B.N.G. and adjacent islands. The Cape Bedford term for float, darman, is the Motu darima, a dialectic variant of sarima-Dr Roth says that the best specimens of canoes are to be seen at C. Bedford (igio, p. i4), and here the original names are also best preserved.

A few examples of the extensive use of similar terms for a single outrigger canoe and its float must suffice: B.N.G. Redscar bay : wanagi, darima; Louisiades: Brumer islands, waga, sarima, and Brierly island, waga, sama (Macgillivray, II. pp. $32 \mathrm{I}, 322$ ). In Polynesia we find in

Tongatabu, Niue, Mangaia, etc., văkă, hămă, and in Samoa, văa, ămă (Fr. pp. 309, 310). In Melanesia the two terms are occasionally associated: Fiji, văgă, zama; Aniwa, waga, tsiama; Duke of York island (Neu Lauenburg) and adjacent coast of the Gazelle peninsula, age (and avaga), aman, etc. ; but Friederici shows that while the name for the canoe varies greatly in Melanesia, that for the float is extremely uniform. A few examples from N.N.G. are: Humboldt bay, waka (wage, etc.), sam; Geelvink bay: Ansus, wa, woma; Jobi (Japen), wa, homan.

In the East Indian archipelago the canoe names vary, but sama, suma, soman, seman occur frequently for the float.

The Western Torres straits name for the float, sāima, is most like the south-east B.N.G. form, but so far as this word is concerned it might just as well have come direct from Indonesia. I am unable to trace the Miriam sirib.

## Summary.

I have now presented the facts, but it is obvious that other data must be considered before one is in a position to make profitable generalisations.

At least two cultural elements may be suspected in the Torres straits canoe. The first appears to have been a crude form with a double outrigger. The second presumably had a single outrigger with two booms, and possibly some method of stick attachment, it probably brought with it the widely spread name for the float, sarima or sàma. I incline to the belief that the Fly river type reached Torres straits from the east; on the whole it resembles the wăche of Humboldt bay more than any of the craft of south-east New Guinea (Van der Sande, Figs. 129,130 , I 33-I 35), and also canoes at FriedrichWilhelmshafen, Astrolabe bay (Neuhauss, Figs. 256 258), and other places on the coast of G.N.G., though all these have a crossed stick attachment.

I have already drawn attention to the parallels with the Batavia river and Cape Bedford types, but hesitate in the present state of my knowledge to draw any conclusions.

The Claremont type may be safely regarded as having been derived from south-east New Guinea, and is probably the most recent of all those under consideration.

I have recorded the fact of the recent introduction of a single outrigger into Torres straits, and it is probable that it will eventually replace the older type ('Reports,' iv. p. 2Io). A similar substitution may also have occurred elsewhere. Thus Friederici is convinced that the kơp, which now only persists in Nissan, has been brought by a Philippine or sub-Philippine migration to New Ireland and neighbourhood, the double outrigger having been replaced in course of time by the Melanesian single outrigger (1913, p. 161, and letter). When objects are stranded afar by a cultural drift they are not necessarily adopted in their entirety, and furthermore they may cause modifications in analogous indigenous objects. Few subjects in Ethnology offer a finer field of research than the many important problems connected with the morphology, modifications, and distribution of canoes.

## Appendix on Terminology.

As there has been considerable laxity in the terminology employed in describing canoes, I have endeavoured to find terms that are appropriate from a nautical point of view, but in some instances so far as I am aware there are no recognised nautical terms for certain structures.

The body or hull when composed of a hollowed-out $\log$ is a dug-out; its sides may be heightened by a board, the wash-strake or top-strake (this I have previously termed the gunwale), which may extend more or less from stem to stern, or there may be a short wash-strake amidships. Sometimes the wash-strake is placed above another plank
or strake. In the Torres straits canoe there is an additional triangular wash-strake at the bow on each side, which I shall call a fore wash-strake (previously I have called it a weather-board) (Fig. I7) ; the end of the wash-strake and the fore wash-strake are closed in by a nearly vertical board, the fore weather-board. The sides of a canoe are often kept from tumbling home by internal struts, when this device is all in one piece it should be termed a strong back. I employ the term outrigger to signify a balancing apparatus that extends traversely beyond the hull; the transverse poles of an outrigger are outrigger booms (or simply booms),


Fig. 17. Decorated bow of a canoe sketched at Mabuiag, Torres straits, in 1888, showing hull, wash-strake, fore wash-strake, fore weather-board, and fore deck covering (pp. 1, 23, 24).
their free extremities may be attached directly by lashing to the float or indirectly by various methods. I propose to employ the term outrigger spar (or simply spar) for the piece, frequently curved or branched, which sometimes forms the indirect attachment of the boom to the float. When one, two, or more small connecting pieces are attached to the end of the boom and inserted in, or as sometimes happens lashed also to, the float, they may be called sticks. A pole connecting the booms and lashed above them is termed a longitudinal spar; the outer and inner longitudinal spars run respectively immediately on the outside and on the inner aspect of the outrigger spar (Fig. II, A).

## CANOES OF TORRES STRAITS

I should like to take this opportunity of thanking various friends who have assisted me, especially Dr G. Friederici whose name has so often been mentioned and who has lent me some original drawings, as has also Mr Norman Hardy ; Dr F. H. H. Guillemard for the loan of numerous photographs taken by himself in the East Indian archipelago, Dr W. E. Roth and Dr G. Landtman for new information. Mr H. H. Brindley of St John's College and Mr G. B. Hony of Christ's College have helped me in questions of terminology.

## A. C. Haddon.

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## ‘ CONSTANTINATA’

Among the Christian populations of the Levant there is a firm if vague belief in the magical properties of the coins struck, or alleged to have been struck, by the 'equal of the Apostles,' Constantine the Great, and his mother, S. Helena the Finder of the Cross. They are worn by women for childbirth and by young children as a protection from the 'eye': they have power, in default of the ordinary materials, to raise bread and turn yaourt and to make sieves hold water ${ }^{1}$. 'Constantinata ${ }^{2}$ ' are in short 'lucky' coins, and have doubtless had that reputation for many centuries. Such obscure popular antiquities are naturally apt to escape the notice of early travellers, and we may count ourselves lucky to find a reference well over two hundred years old to this particular belief.

A late seventeenth-century traveller in Greece ${ }^{3}$ mentions it in the following terms:
' Agia Constantinata [previously explained as a by-name of S. Helena] est dans une grande veneration dans la Zaconie, \& il y a peu de gens de l'un $\&$ de l'autre sexe, qui ne portent à leur col une Medaille ou sa figure est empreinte à costé de celle de Constantin. C'estoit une espèce de monnoye qui cette Princesse fist battre, \& il s'en trouve

[^323]une infinité dans la campagne que la charruë des Laboureurs déterre tous les iours. Les Chrestiens du Pays asseurent qu'elles guerissent du haut mal ${ }^{1}, \&$ de la fievre; $\&$ ils en rapportent un grand nombre d'exemples; c'est aussi l'opinion generale de toute la Grece.'

So much for the miraculous powers of the 'Constantinato.' It is when we attempt to find out precisely what a 'Constantinato' is that difficulties begin. Such an enquiry addressed to any well-stocked Levantine moneychanger elicits an extraordinary collection of odds and ends, beginning with Byzantine gold solidi and tailing off through a variety of Byzantine silver and copper perhaps to Venetian matapani or disreputably battered European coinages of comparatively recent date. If the question is pressed home, the 'Constantinato' par excellence is generally admitted to be the scyphate solidus of the age of the Comneni: actual coins of Constantine, common though they are, never compete for the distinction.

What then is the essential characteristic of a 'Constantinato' to the popular mind? The ultimate solution of the problem is probably to be found in the superficial resemblance between the eikon-type of Constantine and Helena, which represents the two saints side by side supporting between them the True Cross, and the obverse types of certain Byzantine solidi of the ix. and x. centuries shewing busts or figures of two emperors flanking the cross in a similar way ${ }^{2}$. A later variant of this type, occurring on the scyphate solidi, represents the emperor and a saint holding the cross between them, and a derivative of this again is the well-known Venetian type of the Doge receiving the standard from S. Mark. It is in virtue of this type that the Venetian matapani are popularly included

[^324]

Fig. 2


Fig. 3


Fig. $+a$


Fig.!5a


Fig. $4 b$


Fig. $5^{b}$


Fig. 6


Prig. 8 a


Fig. 7


Fig. Sb
in the category of 'Constantinata ${ }^{1}$ ', and the associations of the design have evidently contributed to the popularity of the somewhat similar Venetian gold sequin ${ }^{2}$. This is not at first sight convincing, especially as the sequin is generally known as Venétiko, and seldom or never connected in these sophisticated times with Constantine and Helena. But a silver copy of the sequin, made for jewellers' purposes, was sold me in Jerusalem only two years ago as a genuine coin of Helena.

Various coins have in the same way come to be accepted as 'Constantinata' on account of real or fancied resemblances of type or fabric to the Byzantine prototypes. Among these may be mentioned the grossi of the Lusignan Kings which are held for 'Constantinata' in Cyprus. Here we may fasten the responsibility on the resemblance of the 'throned King' obverse to the (typologically related) 'throned Christ' of the original solidi; to this the cross of Jerusalem on the reverse contributes, if not confirmation of Constantinian origin, at least a certainty of magical efficacy.

The plate accompanying this article is arranged to shew the pedigree of the 'Constantinato' types. The archetype is represented by Fig. I, a carved wooden enkolpion or pocket-eikon of Constantine and Helena. Figs. 2-4 illustrate the Byzantine solidi with the analogous (obverse) type of two imperial personages (Figs. 2, 3) or an imperial personage and a saint (Fig. 4) flanking a Cross. The Venetian matapan (Fig. 5) reproduces this type with variations ; inter alia the banner of S. Mark replaces the Cross. The Venetian sequin (Fig. 6) and its degraded imitation in silver (Fig. 7) shew a further variation from the original type, in spite of which they

[^325]hold their place in popular estimation as magical coins of the 'Constantinato' class. The Cypriote grosso (Fig. 8) is connected with the series only by the similarity of its 'Throned-King' obverse to the 'Throned-Christ' reverse of accepted 'Constantinata' like Figs. 2-5, but is nevertheless locally credited with prophylactic powers.

F. W. Hasluck.

## ADDENDUM

While this paper was in the press, my attention was called by Mr G. F. Hill to a passage in Rev. Num., Sér. iv. vol. xir. (1908), p. 137, mentioning an escudeletto di Sto-Eleno (sic) used as a charm in Provence: it is described as a monnaie byzantine scyphate qui préserve des maléfices.

## DESCRIPTION OF PLATE

Fig. 1. Eikon-type of SS. Constantine and Helena (from an Athos carving).
2. Byzantine Solidus of Basil i. (B.M. Catal. ir. pl. L. I2.)
3. " " Leo vi. " $\quad$. 9 .
4. " " „John ii Comnenus " LxviiI. I.
5. Venetian matapan of S. Contareno.
6. " zecchino of A. Veniero.
7. Degraded copy of Venetian sequin in silver.
8. Grosso of Hugues ii. of Cyprus.

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## THE PIOUS EDITOR'S CREED

I du believe in Freedom's cause
Ez fur away ez Paris is;
I love to see her stick her claws
In them infarnal Pharisees;
It's wal enough agin a king
To dror resolves an' triggers, -
But libbaty's a kind o' thing
Thet don't agree with niggers.
I du believe the people want
A tax on teas an' coffees,
Thet nothin' aint extravagant,-
Purvidin' I'm in office;
For I hev loved my country sence
My eye-teeth fill'd their sockets,
An' Uncle Sam I reverence,
Partic'larly his pockets.
I du believe in special ways
O' prayin' an' convartin';
The bread comes back in many days,
An' buttered, tu, fer sartin;
I mean in preyin' till one busts
On wut the party chooses
An' in convartin' public trusts
To very privit uses.
I du believe hard coin's the stuff
Fer 'lectioneers to spout on;
The people's ollers soft enough
To make hard money out on;
Dear Uncle Sam pervides fer his, An' gives a good-sized junk to all,-
I don't care bow hard money is, Ez long ez mine's paid punctooal.

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 $\pi \alpha \rho \alpha \iota \nu$ е́ ठє́ $\lambda \iota \sigma \sigma o ́ \mu \epsilon \nu о \nu \quad \sigma \omega \phi \rho о \nu i \zeta \epsilon \iota \nu$ тоùs $\pi \epsilon ́ \lambda \alpha s$,


 $\kappa \epsilon ́ \rho \mu \alpha \sigma \iota \nu$ ס̀̀ тò $\sigma \tau о ́ \mu \alpha ~ \tau \overline{\omega \nu} \rho \grave{\rho \tau о ́ \rho \omega \nu ~ \beta u ́ \nu \epsilon \iota \nu ~ \lambda \epsilon ́ \gamma \omega . ~}$





I du believe in prayer an' praise To him that hez the grantin' O' jobs,-in every thin' thet pays, But most of all in Cantin';
This doth my cup with marcies fill,
This lays all thought o' sin to rest,-
I don't believe in princerple
But, O, I $d u$ in interest.
I du believe in bein' this
Or thet, ez it may happen
One way or $t$ 'other hendiest is
To ketch the people nappin';
It aint by princerples nor men
My preudent course is steadied,-
I scent which pays the best, an' then Go into it bald-headed.

I du believe wutever trash
'll keep the people in blindness,-
That we the Mexicans can thrash Right inter brotherly kindness,
Thet bombshells, grape, an' powder 'n' ball Air good-will's strongest magnets,
Thet peace, to make it stick at all, Must be druv in with bagnets.
In short, I firmly du believe In Humbug generally,
Fer it's a thing thet I perceive To hev a solid vally;
This heth my faithful shepherd been,
In pasturs sweet heth led me,
An' this 'll keep the people green
To feed ez they hev fed me.
James Russell Lowell.
 ì $\lambda \epsilon \omega \nu$ тòv $\delta \eta \mu о \sigma i ́ \alpha s ~ \omega i \phi \epsilon \lambda \epsilon i ́ a s ~ к и ́ p ı o \nu ~$
















 グ $\mu$ ' є́ßочко́ $\eta \sigma \epsilon \pi$ потой $\chi \lambda \omega \rho о i ̂ s ~ є ̀ \nu ~ \lambda \epsilon \iota \mu \omega \nu і о \iota s, ~$

R. Y. Tyrrell.

## COMPLIMENTARY DINNER

TO

## PROFESSOR WILLIAM RIDGEWAY

GONVILLE AND CAIUS COLLEGE

$$
\begin{gathered}
\text { JULY 31, } 1913 \\
8 \text { р.м. }
\end{gathered}
$$

## THE KING

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Sir Arthur Evans and the New Museum

## THE CHAIRMAN

Archdeacon Beresford Potter
Mr Charles Whibley

## MENU

## Melon glacé

Tortue Claire
$\qquad$
Saumon, sauce Mousseline

Ris de Veau piqué à la Financière

Selle d'Agneau, sauce Menthe
Haricots verts Pommes de Terre

Caneton d'Aylesbury à la Broche<br>Salade<br>Petits Pois

Gelée à la Macédoine
Pêches à la Melba

Croûtes à la Dumbar

Dessert

Professor Conway

Mr H. T. Francis

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[^0]:    1 This paper is based on a lecture delivered at the Rylands Library, December in, 1912. Professor Ridgeway's brilliant service to the interpretation of Classical literature is a part of the great debt which this volume is written to acknowledge.

    2 For a demonstration of the authenticity of this poem from internal evidence, see Miss S. E. Jackson's paper, Class. Quarterly (1911), p. 163; the concordant voice of numerous and competent external witnesses is lucidly analysed in Class. Rev. xxir. (1908), p. 72, by Mr J. W. Mackail. To him, to Mr Warde Fowler and to Prof. W. B. Anderson I am indebted for valuable criticism.

[^1]:    ${ }^{1}$ Suct. Vit. 3 1.
    ${ }^{2}$ Contrast for instance his impulse to slay Helen (Aen. 11. 575) with the defensive attitude of his fighting in Book x. Il. 310-360 (up to the point at which the death of pallas rouses in him the blind rage of battle) ; or with his impulse to spare Turnus (x11. 940). [But did Vergil mean to keep the Helen passage ? J. W. M.]

[^2]:    1 This neglect is now happily over. Heinze has earned the gratitude of all students of Vergil by his sympathetic exposition of Vergils Epische Technik; and the research of the late Professor Skutsch (Aus Vergils Frühzeit) has opened a new chapter in the history of Latin poetry.

[^3]:    ${ }^{1}$ Schol. on Od. xı. 568, quoted by Norden, p. 196, footnote.

[^4]:    ${ }^{1}$ In the Gorgias ( 524 A) the three judges are Rhadamanthus (for Asia), Aeacus (for Europe), and Minos, the referee in hard cases, who alone ( 526 D) has a golden sceptre.

[^5]:    ${ }^{1}$ See the valuable collection of authorities given by Norden (p. ig ff.).

[^6]:    ${ }^{1}$ Compare Professor Raleigh's Milton, p. 126. It is true, however, as Mr Mackail reminds me, that the easy cadence is proper to the close of a great metrical period; and it may be that in Milton's generation a touch of fire would be felt in the line from its relation to great religious struggles not yet outworn.

[^7]:    ${ }^{1}$ Dion. Hal. I. 53. 2.

[^8]:    1 The ancient feeling on such a matter I may perhaps illustrate by the quaint custom of entrusting to a dead man letters addressed to the deities of the under-world, of which a considerable number have been preserved to us by the accident of their being written upon lead. These leaden documents, which are all of a sinister character -they contain curses-and which are fairly well known to most students of antiquity, were regularly posted, if I may use the expression, in tombs. They have nothing to do with the person who lies in the tomb except that he was supposed to be a good carrier, and his tomb a suitable post-box for this secret kind of message. For examples,

[^9]:    see e.g. the Curse of Vibia (Ital. Dialects, no. 130, with the authorities cited in my note on p. 128); or the article Devotiones in Pauly-Wissowa's Real-Encyclopaedie.

[^10]:    ${ }^{2}$ Inferno 1. 2.

[^11]:    ${ }^{1}$ See especially Aen. v. 764 , which points to Spring. Heinze (Vergils Epische Technik, p. 329) rather strangely assumes that Vergil meant the whole city of Segesta to be planned and built in one day (v. 11. 749-761).

[^12]:    ${ }^{1}$ He completely ignores Servius' note on the line which states the reason clearly: Hi sunt legitimi (anni) vitae humanae quibus completis anima potest transire ripas, id est, ad locum furgationis venire ut redeat rursus in corpora.
    ${ }^{2}$ Lucian, Cataplus, 5 f.; Macrob., Somn. Scip. 1. 13. 10-11; Tertull., De Anima 56 f.

[^13]:    ${ }^{1}$ For another case of highly significant silence see xir. $725-7$, where Vergil deliberately, and artistically, refrains from anticipating the event by stating beforehand the results of Jove's weighing the fates. Jove knows, but unlike Zeus or his creator Homer (Iliad vii1. 70-74, xxi1. 212) he keeps his knowledge to himself.

[^14]:    ${ }^{1}$ Aen. vili. 26-7 (cf., e.g., Hor. Sat. 1. 10. 33).
    2 Inf. xxxiv. 68 f.
    ${ }^{3}$ Professor F. Granger, Classical Review, xıv. (1900), p. 26. I am not quite sure how far my vicw of the whole passage was suggested to me by Professor Granger's

[^15]:    very interesting note (based on Taubmann's comment), and it is quite possible that I owe it entirely to him; but it seemed to arise in my mind merely out of the general view of the nature of the Book which I have held for many years.

[^16]:    ${ }^{1}$ Purg. vi. 38 . Che cima di giudicio non s' avvalla Perchè fuoco d' amor compia in un punto Ciò che dee soddisfar chi qui s' astalla.
    ${ }^{2}$ This, I hope soon to show elsewhere, is a fairly certain deduction from the combined evidence of the following passages: Catullus, Lxir. 40 ; Aen. ix. $435-7$; xi. 68-9; v. 79; Carmina Epigrapbica (Bücheler), 6ı0. 1 I.

[^17]:    ${ }^{1}$ Arist. N. E. $1145^{\text {b }} 25$; Xenoph. Mem. iv. v.
    2 Arist. N. E. $1144^{\text {b }} 18,28$, $1116^{\text {b }} 4$; Xenoph. Mem. 11. ix. 5 ; IV. vi. 7.
    ${ }^{3}$ Mem. Iv. vi. 5-6. T'̀ vó $\mu \iota \rho \nu$, however, includes the 'lawful' by enactment of the Gods as well as by enactment of men. See Mem. Iv. iv. 18-20.
    ${ }^{4}$ Mem. III. ix. 6-8; 1v. ii. 24-27.

[^18]:    ${ }^{1}$ Mem. Iv . ii. $10-40$; iv. vi. $1-4$.

[^19]:    1 Xen. Mem. ıv. iv. 9, vi. 5-6.
    

[^20]:    ${ }^{1}$ See Ward, Psychology, Encyc. Brit. Ed. 9.

[^21]:    ${ }^{1}$ See the argument with Hippias, Xen. Mem. iv. iv. 13-20.
    
    ${ }^{3}$ The obligation expressed by $\chi \rho \dot{\eta}$ also is properly 'external'-that of Necessity, or

[^22]:    
    

[^23]:    1 Apol. 22 B.

[^24]:    ${ }^{1}$ Mr St George Stock's argument that the Ion is later than the Republic, because its references to Homer are more exact, might be retorted. Probably Plato's memory of Homer was more correct when he was young, and not yet occupied with statecraft. See Mr Stock's Ion, Introd. p. x.
    ${ }^{2}$ Xen. Mem. Iv. iv. 12- 25 .
    ${ }^{3}$ Crito, 46 B . He here seems to forget the promptings of his $\delta a \not \mu o ́ v o \nu$.
    ${ }^{4}$ Grote's Plato, vol. I. ch. viii.
    ${ }^{6}$ Apol. 32 A seqq. Socrates, however, distinguished between the authority of vóros (which he should obey) and $\psi \eta \phi i \pi \mu a r a$ (which might be lawfully disobeyed).

[^25]:    ${ }^{1}$ Minos, 317 D .
    ${ }^{2}$ Xen. Mem. Iv. vi. 2-4.
    ${ }^{3}$ Ibid. Iv. vi. 2.

[^26]:    ${ }^{1}$ Laches, 192 B. 2 1bid. $194 \mathrm{~F}, 196 \mathrm{C} . \quad 3$ 1bid. 190 C.

[^27]:    ${ }^{1}$ See the work of Heinrich Dittmar, Aischines von Sphettos, pp. 130 seqq., with the interesting remarks on p. 173.
    ${ }^{2}$ Alcib. I. 121e refers to the four cardinal virtues in the order in which the $R e$ public enumerates them; Alcib. II. discusses the one of the four of which scarcely anything is said in Alcib. I.
    ${ }^{3}$ Charmides, 163 A- 70.

[^28]:    1 Charmides, 174 Br seqq.
    ${ }^{2}$ Hipt. Min. 365 D seqq.; 376 b. Wilamowitz, Sappho und Simonides, p. 180 n. , calls the Hippias Minor a comedy. He regards the Protagoras also as a comedy. This is altogether to misconceive the purport of these dialogues.

[^29]:    ${ }^{1}$ Euthydemus, 304 E seqq.
    2 Theages, 128 D.
    ${ }^{4}$ Ibid. $123-6 \mathrm{~A}$.
    ${ }^{3}$ Theages, $130 \mathrm{~A}-\mathrm{E}$.

[^30]:    1 Menon, 80 D .
    2 Ibid. 8 I A—86E.
    ${ }^{3}$ Socrates is reported by Xenophon, Mem. Iv. iv. 5, to have drawn attention to this difficulty.
    

[^31]:    ${ }^{1}$ Menon, 77 А-78 Е.

[^32]:    ${ }^{1}$ Phaedo, 6 в в.
    2 Ibid. $65 \mathrm{c}, 66 \mathrm{~A}-\mathrm{C}$.
    ${ }_{4}^{3}$ lbid. 34 A-76 D. See also Republic, et alibi.
    ${ }_{5}^{4}$ Phaedo, 75 A ; Phaedrus, 249 C.
    Phaedo, 94.
    ${ }^{6}$ lbid. 114 E .

[^33]:    ${ }^{1}$ Gorgias, $500 \wedge-502 \mathrm{C}$.
    ${ }^{2}$ Ibid. 474 D-475 A. See below, p. 52.
    ${ }^{3}$ Ibid. 475 B.

[^34]:    ${ }^{1}$ To mention Wilamowitz's judgment that the Protagoras was, with the exception of a couple of epigrams, the first work written by Plato, is due to that eminent scholar. The judgment, however, deserves hardly more than mention. See his Sappho und Simonides, pp. 179-80 n.
    ${ }^{2}$ Prot. 350 D.
    ${ }^{3}$ lbid. $35^{1 \text { b }}$ seqq.

[^35]:    Prot. 354 R, $355-357 . \quad{ }^{2} 352 \mathrm{C}$-D. $\quad{ }^{3} 298$ A seqq.
    ${ }^{4}$ But sce above, p. 50, where the reference to this subject in the Gorgias is noticed.

[^36]:    ${ }_{1}{ }^{1}$ Phaedrus, 259 E-266 B.
    ${ }^{3}$ Phaedrus, 266 в.
    ${ }^{5}$ Phaedrus, 2.4 9 B—C.
    ${ }^{2}$ Gorgias, 482 A .
    ${ }^{4}$ Phaedrus, 258 E

[^37]:    ${ }^{1}$ Cf. Phitebus, i 6 c .
    ${ }^{2}$ Phacdrus, 246E, $\tau \dot{0} \tau \eta \hat{s} \psi v \chi \hat{j} s \pi \tau \dot{\epsilon} \rho \omega \mu \alpha$.

[^38]:    ${ }^{1}$ Philebus, 64 E.
    ${ }^{2}$ For the philosophical import of Philebus, 36 E seqq., in which Socrates and Protarchus (both representing Plato 'arguing with himself') contend for and against the attribution of 'truth' and 'falsehood' to pleasure and pain, ef. an excellent article by

[^39]:    Harold H. Joachim on The Platonic distinction between 'True' and 'False' Pleasures and Pains, Philosophical Revierw, vol. xx. No. 5, September, 1911. Mr Grote's criticism of Plato here has been anticipated by Protarchus. Plato had more in mind than superficial criticism can discover.
    ' Republic, 539 B; cf. Arist. 1095 a 2.

[^40]:    1 Timaeus, $20 \mathrm{c}, 27 \mathrm{~A}$.
    ${ }^{2}$ Republic, 592 E. . ${ }^{3}$ p. 36 supra.
    ${ }^{4}$ Leges, 662 seq̣q.
    ${ }^{5}$ Ast's interpretation is right.

[^41]:    ${ }^{1}$ Leges, $732 \mathrm{E}-734 \mathrm{D} . \quad 2$ Ibid. $644 \mathrm{C}-\mathrm{D}$.
    ${ }^{3}$ Leges, 687 D seqq. Blindest of all is self-love, 731 E seqq.
    ${ }^{4}$ Leges, 689 A-C. ${ }^{5}$ Ibid. 709 B.

[^42]:     711 D.
    ${ }^{2}$ Leges, 803 в seqq.
    ${ }^{3}$ Leges, 644 D. In the later he dismisses the alternative allowed in the carlier passage.
    

[^43]:    
    
    Leges, 804 A--B.
    ${ }^{4}$ Leges, $828 \mathrm{D} . \quad{ }^{6} 1$ bid. 858 в.
    ${ }^{5}$ Ibid. $89^{5}$ р.

[^44]:    1 Where the book is not indicated the reference is to Att. xi.
    ${ }^{2}$ Fam. vii. 3.2 and 3 ; an important passage.

[^45]:    ${ }^{1}$ Elsewhere Cicero speaks of the invidiosa atrocitas which so often characterised the language of Quintus: Q. Fr. i. 2. 6.

    2 7. 2. Tum ad eum (Antonium) misi L. Lamiam qui demonstraret illum (Caesarem) Dolabellae dixisse ut ad me scriberet ut in Italiam quam primum venirem: eius me litteris venisse. That letter is not extant : but we have a letter (Fam. ix. 9) from Dolabella, written in June before Caesar's defeat at Dyrrhachium, no doubt with Caesar's approval, urging Cicero to retire from hostilities.
    ${ }^{3}$ This interesting reasoning is due to O. E. Schmidt, Briefruechsel Ciceros, p. 201, whose services in fixing the chronology of Cicero's letters can hardly be over-estimated.

[^46]:    He proves that letters took about eight or nine days to pass from Rome to Brundisium, Ovid, Pont. iv. 5. 5. Thus Att. xi. 6 (Nov. 27) asks for a speedy reply, which reaches Cicero on Dec. 17 (xi. 7). Schmidt (p. 202) adds much other confirmatory evidence.
    ${ }^{1}$ 6. 2. me discessisse ab armis unnquam paenituit...voluntatis me meae nunquam paenitebit, consili paenitet: cp. $7.4: 8.1: 9.1: 14.1: 15.1,2: 16.2,3: 24$. r.
    ${ }^{2}$ For allusions in Att, xi. to the gradual reconstruction of the Pompeian party in Africa cp. 7: 3: 10. 2: 11. 1: 12.3:14.1, 3: 15.1,2: 16.1.

[^47]:    ${ }^{1}$ She seems to have done so also during the period of Cicero's exile; as this is the most reasonable interpretation of the mysterious allusions in Att. iv. 1. 8: 2.7.
    ${ }^{2}$ Dolabella was about 22, Tullia about 31 at this time.

[^48]:    ${ }_{1}$ Thus, to take an example or two, we find words sometimes inelegantly repeated, e.g. factum (6. 3), diligentissime (8. 1), sumere (11. 2): utinam non (9. 3), which is common in later writers, e.g. Quintilian, but elsewhere Cicero always uses ne: the omission of dandas in cures litteras meo nomine (8. 2) : Achaici deprecatores itemque in Asia (14. 1), 'likewise those in Asia,' compare ille in Achaia (11.2): Achaici item ex
     Lebreton, p. 90. There is a curious use of pergit in 14.3: Quintus pergit-' is going on' (sc. abusing me). Such a strong ellipse as this is an undue extension of such an allowable use where the verb to be supplied is dicere, e.g. pergan (sc. dicere) et insequar longius, Verr. iii. 51. Pergere with the accusative is rare, cp. Att. iii. 15.5: iv. 11. 1: perge reliqua, and seems confined to this kind of phrase where dicere can be supplied, e.g. Leg. ii. 69 : though we find Phil. xiii. 40, pergit in me maledicta where Halm would add iacere or iactare, Clark adds dicere in the text; and no doubt the usual Ciceronian construction of pergere is with the infinitive.

[^49]:    ${ }^{1}$ Margoliouth argues strongly in favour of $\mu$ ovoıкóv, the Manuscript reading : but 1 am not quite convinced.

[^50]:    ${ }^{1} 1448 \mathrm{~b} 2 \mathrm{I}$.

[^51]:    1 Aristotle's Treatise on Poetry. Note 5, p. 229 (ed. 1812 ).
    ${ }^{2}$ His edition was published (after his death) in the year 1794 . The italics are not printed by him.
    ${ }^{3}$ As a matter of fact in this quoted passage the MS. authority for $\hat{\eta}$ is weak. A, B, and $C$ all read кai; hence 'Tyrwhitt was wrong in arguing from the passage; but the reading is an interesting one all the same, and we shall have to refer to it again.

[^52]:    1 The Poetics of Alistotle (Hodder and Stoughton).
    2In chap. 11, The Text of the Poetics, p. ir7. (The italics are ours.)
    ${ }^{3}$ Ibid., p. 68.

[^53]:    1 The reader will understand that I do not discuss Margoliouth's own theory further, because it is not my direct aim to criticise the interpretations of others.

[^54]:    ${ }^{1}$ So Thyestes endorsed his curse by kicking over the table : $\lambda$ ákтı $\quad \mu \alpha$ $\delta \in i \pi \nu o v$ $\xi \cup \nu \delta i x \omega s$ тı $\theta$ єis àpậ (Aesch. Ag. 1601).
    ${ }^{2}$ Selections from Polybius edited by J. L. Strachan-Davidson, pp. 73-80.-After my essay was written, some of the questions with which it deals were discussed by Professor J. S. Reid in the Fournal of Roman Studies, ii. ( r 912 ), pp. 49-52. I have added references to his article here and there.
    ${ }^{3}$ Caclius ap. Cic. ad Fam. viii. 8. 3 ; Livy xxxiii. 47. 5.
    4 If one of the accusatives were a neuter pronoun, the double accusative would be easier; but in Xen. Cyrop. v. 4. 31, which a popular Syntax quotes in this connexion, тaи̂тa is not governed by $\quad 弓 \mu \nu \nu \mu$.

[^55]:    ${ }^{1} \mathrm{Mr}$ Strachan-Davidson (p. 74) objects that these cases are not quite parallel with ours, 'for in these the god is identified with an instantaneous phenomenon of active and tremendous force..., not with an object that can be preserved and worshipped as a fetish.' But Iuppiter Fulgur is not needed as evidence (there is plenty) that a fetish can be identified with a god: it does shew that an identification, whether instantaneous or permanent, can be expressed by an apposition, a double name.-Cf. Zєìs Kєfavyós at Mantineia, B. C. H. 1878 , p. 515.

    2 If Iouem lapidem were not in apposition, it would be easier in point of syntax to suppose asyndeton, on the pattern of usus fructus: 'Jupiter and the stone' (H. Nettleship, Essays in Latin Literature, p. 35 ; cf. W. Warde Fowler, The Roman Festivals, pp. 230 ff.). -Professor Reid sees a conjunction of accusatives a little like the double accusative with condonare (loc. cit. p. 52).
    ${ }^{3}$ L. Deubner in Neue Jahrbiicher fiir das klassische Altertum, xxvii. (1911), p. 333: 'Götter werden wohl manchmal geprügelt, aber dass man sie zum Zwecke eines Analogieritus von sich wirft, ist meines Wissens ohne Parallele, und vor allem : für den Ritus ist es völlig gleichgältig, ob der Stein göttlich ist oder nicht.'

[^56]:    ${ }^{2}$ Warnings against his authority on Roman matters are uttered by Mr W. Warde Fowler, The Religious Experience of the Roman People, p. 316, and by Professor Reid, loc. (ii. p. 50.
    ${ }^{2}$ Loc. cit. p. 334. Cf. Reid, loc. cit. p. 50: 'Polybius has certainly confused two quite different formalities in which the silex played a part;...and he has not only confused the two, but has introduced mythical embellishments.'

[^57]:    ${ }^{1}$ per as in per aes et libram, not as in per Iouem.
    ${ }^{2}$ This point can scarcely be argued, but try the effect of a substitution. If he had
     Toюovitov?
    ${ }^{3}$ Kühner-Gerth, Ausf. Gramm. i. 485 : 'Der Unterschied zwischen dem kausalen $\delta a ́ a ́ c$. g. und $\delta \iota a ́ c$. $a$. ist gewissermassen wie zwischen per und propter.' I cannot point to any other example of $\delta i a ́$ with ${ }^{\circ} \rho \nu \nu \nu \mu$, but the use seems possible, and I do not see how else Polybius should have translated per lapidem, if that is what was in his mind.
    ${ }^{4}$ Because the actual description speaks of only one stone. But the change of number may be illustrated by Mr L. Preller's description of the flinging of the stone (Römische Mythologie', i. 248): 'Daher auch die Fetialen gewiss diesen Jupiter meinten, wenn sie...den Jupiter Lapis in die Hand nahmen und zu dem Eide selbst...hinzusetzten : "So ich die Wahrheit sage...," nach welchen Worten er den heiligen Kiesel von sich schleuderte, der dabei gewiss nicht die passive Bedeutung jedes beliebigen Kiesels, sondern die active eines vom göttlichen Geiste beseelten Donnerkeils hatte.' The end of this passage is a forlorn attempt to combine incompatibles; it is sufficiently answered by Mr Strachan-Davidson (p. 78 ).

[^58]:    ${ }^{1}$ Livy may be romanizing here, of course, or romancing ; but even so the passage attests that to Livy the stone used by the pater patratus was not identical with a god.
    ${ }^{2}$ See the third passage of Livy.

[^59]:    ${ }^{1}$ I will suggest in passing that the box so often attributed to Pandora by modern writers really belongs to Psyche (Apul. Met. vi. 16 seq.). The error is some centuries old ; see J. H. S. xx. p. 99 f.

    59-89.
    ${ }^{3} 5^{6} 5 \mathrm{ff}$.

[^60]:    ${ }^{1} 59-68$. $\quad 269-82$.
    3 'The composition of this passage is discussed by Kirchhoff (Hesiodos' Mahnlieder an Perses PP. 44 ff .) and various more recent writers.

[^61]:    1 Cf. Eustath. p. 919, 48.
    21135.

    3637 f. For further illustrations, see the full discussions by Nägelsbach ( $N a i / h$ homerische Theologie, pp. 382 ff.) and L. Schmidt (Ethik d. Alten Griechen, ii. pp. 70 f.). The evil Elpis is treated by Mr Cornford (Thucydides Mythistoricus, pp. 224 ff .).

[^62]:    ${ }^{1}$ Il. xxiv. 527 ff .
    ${ }^{2}$ The references, unless otherwise stated, are to editions of Hesiod.
    ${ }^{3}$ So Daniel Heinsius, ed. 1613 , p. 252.

[^63]:    ${ }^{1}$ Ethik d. Alten Griechen, ii. p. 70.
    ${ }^{2}$ s.v. Elpis in Pauly-Wissowa.
    ${ }^{3}$ Aesch. P. V. 264 ff .

    Some critics regard the comment of the chorus as ironical, but they have not, I think, considered the context with sufficient attention.
    ${ }^{4}$ Hésiode et son poìme moral, p. 56.

[^64]:    1 Griech. Mythol. u. Religionsgesch., p. 1024 f.
    ${ }^{2}$ Rev. d. Et. Gr. xxii. (1909), pp. 217 ff.
    ${ }^{3}$ s.y. Pandora, in Roscher's Lexikon.
    ${ }^{4}$ Logically one might suppose, with van Lennep, that Elpis is a good included among evils because her existence is bound up with theirs, and, with Schmidt, that she is retained to be communicated to mankind by Prometheus; but this theory is not, I imagine, likely to find many admirers.
    ${ }^{6}$ Anth. Pal. x. 7 I.

[^65]:    ${ }^{1}$ There is possibly, I think, earlier evidence than these passages for the Jar of Goods. When Theognis, in a poem to which I have already alluded, writes ( 1135 ff .),
    
    
    
    it looks as if he knew and was embroidering on the version of the myth recounted by Babrius. The language and tone of this poem are however strongly reminiscent of other parts of the Works and Days, and it is possible that Theognis has merely transferred Elpis from its present Hesiodic context to a new one, suggested perhaps by the flight of Aidos and Nemesis predicted at W. D. 200 ff . I will not therefore linger over the dark problems suggested by the hypothesis that Theognis, in a passage reminiscent of Hesiod, utilises the Babrian version of the $\pi i \theta$ os-myth.
    ${ }^{2}$ I append for the convenience of the reader Rzach's text of the passage with such critical notes as seem relevant.

[^66]:    ${ }^{1}$ Against this view is the fact that in Il. 9 r f. the poet ascribes to mankind before the disaster not the goods which this jar contained but merely freedom from the ills contained in the other. As however we cannot tell what immediately preceded 1.90 in the original story, this objection is not very serious. The line which originally followed 98 may well have contained the missing nominative to $\epsilon^{\prime} \pi \epsilon ́ \mu \beta a \lambda \epsilon$.
    ${ }^{2}$ On 1. 99 see Dimitrijević, Studia Hesiodea, p. 174. Possible examples of interpolation at junctures are to be found elsewhere in Hesiod. L. ${ }_{33}$, interpolated at the point where, on the other hypothesis, the Jar of Evils is interrupted by Elpis and the Jar of Goods, is on a different footing. It is a gloss on the false reading $\gamma \hat{\eta} \rho a s$ for $\kappa \bar{\eta} p a s$ in 1. 92 borrowed bodily from Od. xix. 360 , and it is not found in all MSS.
    ${ }^{3}$ When I wrote this paper I was aware from Rzach's apparatus that Spohn had considered lines $96-98$ to be alienae indolis, but I was unable to find either his edition or any report of his reasons. While correcting the proofs I discovered that E. Lisco in his Quaestiones Hesiodeae (Goettingen мсмiII : p. 36) has reached a similar conclusion; he regards $96-99$ as an interpolation replacing some part of the story of which $90-104$ is a fragment. His argument is that Elpis is good and must therefore belong to the Babrian version of the $\pi i$ 有os-myth.
    ${ }^{4}$ Schol. Ar. Av. 971 , Philostr. Vit. Ap. Ty. vi. 39, Hesych. s.v. Пavoん́pa: cf. Hom. Epigr. vii. 1 .
    ${ }_{6}$ Diodorus, iii. 57.
    ${ }^{6}$ Hesiod, fr. 2 R.
    ; Id. fr. 4 R.
    ${ }^{8}$ Orph. Argon. 975 ff.
    ${ }^{9}$ Cf. Miss Harrison, Prolegomena, p. 285.

[^67]:    ${ }^{1}$ Hermann (Jahrb. f. Phil. xxi. 1837 , p. 129 f.) would banish Pandora from the Works and Days altogether, leaving (by the excision of 11. So f.) the woman of the Misogynist's Myth nameless as in the Theogony. The other evidence connecting the name Pandora with the first woman and Pandora with Epimetheus (Apollodorus, i. 7, 2; Palaephatus, xxxiv.; Hyginus, Fab. cxlii.; Plotinus, Enn. iv. 3. 14, etc.; and the vase, J. H. S. xxi. pl. 1) seems to make this hypothesis precarious, though it is possible that the name is introduced into the Works and Days from some other version of the story.
    
     W. D. 89 (where it is stated that the jar was left in Epimetheus's charge by Prometheus who received it from satyrs) belongs to this version of the story. Welcker wished to see Pandora's jar (box, he calls it) in the object held by Epimetheus on a curious glass cup from a Roman grave at Cologne (Jahrb. d. Ver. f. Alterthumsfreunde im Rheinlande xxviii. T. 18). The object is however neither jar nor box.
    ${ }^{3}$ Dionys. vii. 56 ff.
    4 I entertain so much doubt as to the meaning of Macedonius's epigram that I speak hesitatingly about it, but the references to old age look as if they were due to $\gamma \bar{\eta} p a s$ in W. D. 92 . In 1.5 of the epigram $\mu \epsilon \tau \grave{u} \pi \hat{\omega} \mu \mu$ is perhaps only a copyist's

[^68]:    ${ }^{1}$ One of these ( $\eta$ below) might perhaps be better placed in the next category of amorphous pieces.
    2. The material which I had suspected to be iron pyrites is identified as such by Dr Prior, of the Natural History Museum. As regards the reason for its presence in the hoard, he suggests that 'it may have been mistaken for copper pyrites, the mineral from which the copper of the bronze may have been obtained. By ancient writers such as Pliny and bioscorides the two minerals were often confounded. Dioscorides, in fact, calls pyrites an ore of copper. The name "copperas" for native sulphate of iron was given no doubt as a result of such a confusion."

[^69]:    ${ }^{1}$ Head, Hist. Num. ${ }^{2}$, p. 592.

[^70]:    ${ }^{1}$ Alh. Mitth. xix. (1894), pp. 410 ff.; esp. 463-81. Leaf (Troy, p. 87) accepts Noack's view. For an account of the fortress and palace see de Ridder, B. C. H. xviii. (1894), 271-310; Soteriadhes, 'E $\phi .{ }^{\prime} \Lambda \rho \chi .1903$. p. 76 (n. 1 to p. 74, ad fin.) ; Frazer, Paus. v. pp. 120-8.
    ${ }^{2}$ Paus. ix. 40. 5-6.
    ${ }^{3}$ Plut. Vit. Cim. § 1 ; sec Busolt, Gr. Gesch. $1^{2}$, p. 255.
    4 Strabo, ix. p. 413. ${ }_{5}$ Steph. Byz. s. v.
    (3) Strabo, i. p. 59 ; ix. p. 413.

[^71]:    ${ }^{1}$ Strabo, ix. p. 407 ; Paus. ix. 24.2 ; Steph. Byz. s. v. 'A $\theta$ 市vat (Noack, p. 416 ff.).
    ${ }_{2}{ }^{1} 507$. ${ }^{3}$ B.C.H. xviii. 446-52.
    ${ }^{4}$ Strabo, p. 413 ; Schol. B 507.
    ${ }^{5}$ Paus. ix. 38.4 (epitaph on Hesiod's tomb at Orchomenus).
    ${ }^{6}$ See Roscher and Pauly-Wissowa, s. v.
    7 Thuc. i. 12.3 ; Strabo, ix. p. 41 1.
    8 'Die Didymosscholien, die, wie wir jetzt wissen, auch beste und älteste alexandrinische Gelehrsamkeit enthalten, geben den Anlass zur Änderung mit den Worten an :
    

[^72]:    ${ }^{1} \mathrm{Mr} \mathrm{T}$. W. Allen argues that the name Boeotia was earlier used in its classical meaning than the invasion from Thessaly. He refers to Thucydides' statement, 'whence, as the Boeotians are in Boeotia in Homer, it has been inferred that this part of the Catalogue is post-Dorian. Thucydides was probably misled by the nomenclature. Some races certainly carried their names South with them, the Hellenes, Enienes, Phlegyae, Achaei, whom we can see moving; others took the name of the country which they occupied and this seems generally true of the Dorians, who became in Argos
     Boeotia Botetoi. There is no evidence that the name Botatoi was ever borne by anyone North of Oeta. The Dorians in general took their name according to their own tradition from $\Delta \omega \rho i s$, or according to Herodotus from Dryopis; they were not called Dorians till they arrived in the Peloponnesus; when therefore we find a place called $\Delta \dot{\omega} p t o v$ in Peloponnesus it is a simple case of the same place-name recurring in Greece, like Ephyra, Oechalia, Orchomenus, Thebae, and has nothing to do with race’ (J. H. S. xxx. p. 295). The tradition preserved in Thucydides and Strabo, against the testimony of Homer, must have been a strong one and probably contains the truth. Homer may have been guilty of an anachronism (which would still leave the Catalogue pre-Dorian, nor make one part of it later than another). Against Mr Allen's view is the fact that none of the early heroes of the country, Minyas, Cadmus, Alalkomeneus, Hyrieus, for example, is ever descended from Boeotus, who is apparently a later eponymus. (One scholiast, ad Apoll. Rh. i. 230, makes Minyas a son of Poseidon and Hermippe, daughter of Bocotus; another, ad Il. ii. 511, makes Orchomenus a son of Zeus and Hermippe.) And the occurrence together of such names as Thebae, Coronea, Itonia,

[^73]:    ${ }^{1}$ Hirschfeld, ap. Pauly-Wissowa, ii. p. 1202, 26.
    ${ }_{3}^{2}$ Noack, p. 464 ; Wilamowitz in Hermes, xxvi. p. 205, n. 1.
    ${ }^{3}$ ' Die ganze Anlage, vor allen die vier Thore, sowie der Umstand, dass der auf der Nordseite, nach dem Ufer führende Damm gar nicht auf das Nordthor Rücksicht nimmt, sondern im Falle irgendwelches Wasserstandes nur durch Klettern über schroffe Felsen und Übersteigen der dort thürlosen Mauer zu erreichen wäre, weisen deutlich darauf hin, dass sie auf ein ringsum trockenes, zugängliches Gelände berechnet war. Diese Burg ist nur zu verstehen in Verbindung mit dem trocken gelegten Kopaissee' (pp. 439-40).
    ${ }^{4}$ Sec Eur. Her. Fur. $217-21$; Theocr. xvi. 104 f.; Paus. ix. 9. 1, 37. 1-3, 38. 7, 25.4 , \&c.; Polyaen. i. 3.5 ; Diod. iv. 18.7 ; Apollod. ii. 67 (ed. Wagner); Strabo, ix. 414 .

[^74]:    ${ }^{1}$ Paus. ix. 24. 1: the Athamantine Plain was that north-eastern Bay of the Copais, now known as the Bay of Topolia, at the western end of which Gla is situated.
    ${ }^{2}$ For these, see Noack, pp. 463-4.
    ${ }^{3}$ Class. Rev. 1903 , p. 239 ; Hes. fr. 38 (ed. Rzach 1902). Steph. Byz. does not notice Glechon.

    * loc. cit. pp. 305-6.

[^75]:    ${ }^{1}$ Frazer, pp. 121, 126, 128. How Noack reconciles this with his idea that Gla was Arne, I eannot imagine.

[^76]:    ${ }^{1}$ Paus. ix. 36. 1-3. Elsewhere (ix. 9. 2) Pausanias says that among the mercenaries that supported Thebes against the Argives were mapà $\Phi \omega \kappa \epsilon \in \omega \nu$ каì $\bar{\epsilon} \kappa ~ \tau \eta \bar{\eta}$ Mıvváóos $\chi$ ஸ́pas oí $\Phi \lambda \in \gamma$ vial.
    ${ }^{2}$ Pherecydes is the chief authority for these legends; fr. 102 a (Fragm. Hist. Gr. i. pp. 95-6, from the Scholia to $\lambda 263$ and N 302, which state that Amphion and Zethus first walled Thebes, then Cadmus again afterwards).
    ${ }^{3}$ Roscher, s. v.
    ${ }^{5}$ Steph. Byz. s. v.

    4 Roscher, s. v.
    ${ }^{6}$ Paus. ix. 24.4.

[^77]:    ${ }^{1}$ For the text see Bergk, P. L. G. ${ }^{4}$ iii. pp. 23 sqq., and Blass in Rhein. Mus. xl. (cf. Hermes, xiv. pp. $467-9$ ). Various interpretations by Bruschi in Riv. di Filol., xxiii. 1895, Diels in Hermes, xxxi. 1896, Weil in Journal des Savants 1896, Jurenka in Philologus, lvi., the most important paper of von Wilamowitz in Hermes, xxxii. 1897, Kukula in Philologus, lxvi. 1907 (criticism by Jurenka in Zt für Ö̈st. Gymn. 1907, p. 1084 , reply by Kukula, ib. 1908, p. 566), W. W. Wilson in Am. J. Phil. xxxiii. 1912. See also Smyth, Melic Poets, pp. 175 sqq.

[^78]:    ${ }^{1} 1$ translate фâpos 'robe,' and Kukula's theory ( $\phi$ âpos $=$ Ephesian $\sigma \pi \epsilon i ́ p o \nu=$ Attic $\pi \dot{\epsilon} \pi \lambda$ as and $\theta \omega \sigma \tau \dot{\eta} \rho u=$ Ephesian $\epsilon \dot{v} \omega \chi \eta \tau \dot{\eta} \rho \mu=$ Attic $\dot{\eta} \gamma \eta \tau \dot{\eta} p u a)$ is attractive. But I have no right to an opinion on this question. Wilson's фâpos $=\phi \hat{\eta} \rho o s=\tau v p o ́ s$, whence ambrosial night, is as perverse as ï in $\pi o s ~ \pi a \gamma o ́ s=$ Pegasus $=\kappa \epsilon \in \lambda \eta s$ aiveктıкós.

[^79]:    ${ }^{1}$ See W. Headlam, C. R., xiv. p. 114.
    ${ }^{2}$ So Kukula and Jurenka.

[^80]:    ${ }^{1}$ I believe Professor Jebb used to translate àvei 'as good as...' (cf. Il. ix. y 6 , viii. 163 leaf) : the gap in the Papyrus is not large enough for aid (W.-M.), but allows o, (Blass).

    2 The view is supported by the scholiast or by the Alexandrians whom be uses, but we do not know that their knowledge was better than ours.

[^81]:    ${ }^{1}$ For the whole subject see his notes on Supp. 88 and Cho. 622 in the prose translations, also C. R. xiv. p. 197, xvii. p. 240 .

[^82]:    1 The word arpigetey simply means 'pasture' as in Xen. Mem. ii. 9. 7 ḯrтavat (cf. roírıs Eur. Fr. 442 N.).

[^83]:    1 von Wilamowitz.
    ${ }^{2}$ Ridgeway, Origin and Influence of the Thoroughbred Horse, pp. 286, 296.

[^84]:    1 See Ar. Vesp. 1218 Starkie, Plato, Lys. 218 c, Theaet. 208 R, Ap. Kh. ii. 306, Lucian, Nav. 46, TYmon 41.

[^85]:    ${ }^{1}$ So $\pi$ дои̂тos is $\dot{v} \pi o ́ \pi \tau \epsilon \rho o s$ Eur. Fr. 420, 518 . Cf. ä $\pi \tau \epsilon \rho o s$ фítıs Aesch. Ag. 288,
    
    
    ${ }^{2}$ The admirers of Agido exclaiming 'Oh, what winged dreams!'

[^86]:    ${ }^{1}$ oioy $\lambda$ îpos, Nauck, Fr. Ad. 285, Diog. L. vi. 95.
    2 Plutarch in Stob. Flor. p. 403, 32.

[^87]:    ${ }^{1}$ Late red-figured krater. Berlin Antiquarium Cat. 2646 , Mon. dell' Inst. XiI. tav. 4. Other instances of the same class of design are given in my Prolegomena, pp. 277-281 and 640, and Themis, p. 422.

[^88]:    ${ }^{1}$ De architect. If. 1. 5. For reference to these underground cave dwellings I am indebted to Mr A. B. Cook; for their application to the passage in the Ichneutae I am alone responsible. Most of the classical references are collected in Schrader's RealLexicon, Unterirdische Wohnungen and Stall und Scheune.
    ${ }^{2}$ Anab. Iv. 5. 25.

[^89]:    
    
    ${ }^{2}$ Dürpfeld, W., Das Griechische Theater, pp. 116 and 120.
    ${ }^{3} \mathrm{Mr}$ Cornford calls my attention to the striking similarity of the scene in the Pax of Aristophanes, where Peace is drawn up from the 'deep cave' below the earth (a ${ }^{2} \nu \tau \rho \circ \nu$ $\beta a \theta \dot{v} \ldots \kappa \dot{c}(\ldots)$ ) where she has been imprisoned by War. Hermes assists at her Anodos and the Chorus dance round her for joy holding their $\sigma \phi \hat{v} \rho a t$, which recalls to mind the lost Satyric play of Sophokles-Пагঠ்ळа $\vec{\eta}$ इфироко́то. The 'Eirene-holding Ploutos' of Kephisodotos is, like Kyllene and like Pandora, just the Earth-Mother holding the fruits of the earth.

[^90]:     p. 249). The present writer has seen the apparition of a German savant with an umbrella emerging from the Charon's staircase at Eretria.
    ${ }^{2}$ Germ. Сар. 16.
    3 v. 28.

[^91]:    ${ }^{1}$ Similar underground shelters are, it would seem, still in use. Mr Warde-Fowler kindly sends me the following extract from A. Savage Landor's Across Caveted Landsthe scene is not far from the Afghan frontier: 'I was much interested in some curious circular and quadrangular pits only a few yards from where we had stopped, which were used as shelters for men and sheep but were now deserted. They were from four to six feet deep below the surface of the ground, and from ten to thirty feet in diameter (when circular), a section being partitioned for sheep....In the part reserved for human beings there was a circular fireplace of stones, and some holes in the earth at the sides for storing foodstuff.... The difference in the temperature between the interior of these pits and the open ground was extraordinary. They were comfortably warm, even when it was uncomfortably cold as one peeped out of them.'
    ${ }^{2}$ De Re Rust. I. lvil. 3 and lxili., and see Dem. de Chers. 45, for similar storage $\sigma \iota \rho o i$ in Thrace. The word $\sigma \iota \rho o ̀ s$ survives in the French silo, grain-pit. For the wholc subject see Daremberg and Saglio s. v. granarium.

[^92]:    
     analogy of the 'tomb of Tantalos' see my Themis, p. 401, Fig. 112.
    ${ }^{2}$ Themis, p. 400, Fig. 11.
    ${ }^{3}$ See H. Bulle, Orchomenos, in Abh. d. k. bayer. Akad. d. Wiss. xxiv. 1907, Abt. 11., especially the chapter Rundbauten und Ovalbauten, p. $3^{6}$.

[^93]:    ${ }^{1}$ Bulle, op. cit. Taf. xir. For full account of circular and curved buildings, ancient and modern, see E. Pfuhl, Zur Geschichte d. Kurvenbaus, A. Mitt. xxx. 1905, p. 331, and Mackenzie, Cretan Palaces and the egean civilization, iv. The Round Hut, B.S.A., xiv. (1907-8), P. 345. Mr L. Pearsall Smith tells me that near Tarentum a whole village of circular huts known locally as trulli may still be seen.
    
    
    ${ }^{3}$ Journal of Roman. Studies, 1912, p. 25.
    ${ }^{4}$ Georg. I. 219 ff.

[^94]:    ${ }^{1}$ Cp. Macrob. 1. 16. 18.
    ${ }^{2}$ See Themis, pp. 291-295. Pithoi were of course freely used, not only for storing corn but for grain and for the burial of the dead.
    ${ }^{3}$ Vit. Num. X. Mr Cornford, in his paper on The dimap $\alpha$ ai and the Eleusinian Mysteries in this volume, has shown that the lacus into which Quintus Curtius descended was in effect a mundus. I would conjecture that the threshold with the 'brazen steps to earth's decp roots' to which Ocdipus came at Colonus (O. C. ${ }^{1} 590$ ) was a like structure.

[^95]:    ${ }^{1}$ Some such meaning of ajapxai seems essential. The question is discussed in Mr F. M. Cornford's paper on The àmapरai and the Eleusinian Mysteries.
    ${ }^{2}$ Op. cit. p. 33.

[^96]:    ${ }^{1}$ Since the above was written a very interesting paper has appeared by Dr P. Corssen, Das Gefangnis der Antigone, in Neue Jahrbücher f. kl. Alterthum xxxi. 1913, pp. 226235. Dr Corssen deals with the use as prisons of structures analogous to Mycenaean beehive-tombs. He cites the many and mostly familiar mythological instances of underground prisons, Danae, Lycurgus, Ephialtes, etc., but suggests no ritual significance. A historical case of such a dungeon, that of Philopoemen, had quite escaped me and is of special interest because the dungeon was actually called a thesaurus. Plutarch, Vit. Philop. 19, thus describes the imprisonment : the Messenians led Philopoemen eis tòv
    
    
    
    ${ }^{2}$ Iv. 5.
    ${ }^{3}$ Louvre, E. 702. Nuove Memorie dell' Instituto 1865 , pl. xv. My attention was drawn to the survival of the cave notion on this vase by the kindness of $\mathrm{Mr} \mathrm{A} . \mathrm{B}$. Cook.

[^97]:    ${ }^{1}$ As at the Anaklethra of Megara near the city's hearth, the Prytaneion, or again in the Heroic at Delphi. See my Themis, pp. 417 and 416 , where we have the Calling up and the Leading $u p$ respectively of Kore and Semele.

[^98]:    ${ }^{1}$ II. i. 2. For the myth of Glaukos see Pauly-Wissowa s. v. Glaukos of Crete is obviously the same as the sea-god of Anthedon and the ritual and myth are of Bocotian origin.
    ${ }^{2}$ Brit. Mus. D. 5. Murray, White Athenian Vases, pl. 16, the vase is signed by the master | $\Sigma \omega \tau]$ kions 1 .

[^99]:    ${ }^{\text {I }}$ Ran. 1477; the lines slightly modified also occur in a fragment of the Phrixos.
    ${ }^{2} \pi \in \rho i ̀ \quad \rho \rho \chi$. 5 .
    
    ${ }^{4}$ Themis, chapter vi.
    ${ }^{5}$ Frg. 75 [45] Christ ; see Themis, pp. 203 and 418, and cf. the festival of Herois at Delphi.

[^100]:     quem Pythonos aiunt tumulum-see Themis, p. 40x.

[^101]:    
    ${ }^{2}$ Kybele, the mountain-mother, dwelt also in a hill-house. Hesych. s. v. кर́ $\beta \epsilon \lambda \alpha$
     pp. 118 and 161.
    ${ }^{3}$ See Prof. Gilbert Murray, Four Stages of Greek Religion, 1912, p. 51.
    ${ }^{4}$ At the Lenaia. Ar. Ran. 395, see Themis, p. 421 . Since the above was written Mr A. B. Cook has, with his accustomed generosity, allowed me to read in advance the section of his forthcoming book, Zeus, that deals with the Lenaia. Mr Cook connects the Anodos vases I have discussed with the winter Lenaia rather than the spring Dithyramb. I cannot here anticipate his important and deeply interesting argument. I suspect, however, that a similar magical ritual was practised both in winter and spring. It would be appropriate at any time between seed-sowing and harvest.
    ${ }^{5}$ For this distinction between Mime and Mystery see L. v. Schroeder, Mimus und Mysterium, 1908 passim, and Die Vollendung d. Arischen Mysteriums, 191 r, p. 39.

[^102]:    1 Journal of Roman Studies, 11. 25 ff. Much also has been suggested to me by Miss Harrison's paper in the present volume.

[^103]:    ${ }^{1}$ G. B. ${ }^{3}$, Part v. vol. I, p. 207 ff.
    ${ }^{2}$ Ibid. p. 49.

[^104]:    ${ }^{1}$ Compare the temper of the epigram in Suidas, s.v. $a \pi a ́ \rho \chi \epsilon \sigma \theta a \iota: \epsilon i \mu \eta \delta^{\prime} \epsilon \xi \xi \lambda \lambda i \gamma \omega \nu$
    
     $\nu i \omega \nu \tau \epsilon \lambda \epsilon \tau \hat{\omega} \nu$. Farnell, Cults, in. 183.
    ${ }^{3}$ The use of the $\dot{a} \pi a \rho \chi a i$ at the winter Haloia rests on bad authority (Frazer, ibid. p. 60). See, however, P. 13, n. 2. At the festival of 'Ceres' at Cyprus mentioned by
     this does not seem a reason for saying (with Nilsson, Griech. Feste, 316) that it was 'a harvest-festival, not the Thesmophoria.' Farnell (Cults, II. 327) includes the passage among his references for the Thesmophoria.
    
     $\epsilon_{\epsilon}^{\nu} \theta a v \theta o \hat{\imath} \epsilon \dot{\epsilon} \mu \beta \dot{\lambda} \lambda \lambda \epsilon \nu$. For the $\sigma \epsilon \iota \rho o ́ s ~ s e e ~ D a r e m b . ~ a n d ~ S a g l i o, ~ s . v . ~ g r a n a r i u m, ~ a n d ~$ Miss Harrison in this volume. Dem. Chers. 45 , $v \pi \grave{\epsilon} \rho \tau \hat{\omega} \nu \mu \epsilon \lambda \iota \nu \omega \hat{\nu}$ кai $\tau \hat{\omega} \nu \dot{\omega} \lambda \nu \rho \hat{\omega} \nu$

[^105]:    
    
    
    
    
    
    
    
     66. A very ancient cave shrine of Pluton has been identified at Eleusis. The mundus, it may be noted, was itself dedicated to Dis Pater and Proserpina, and was called the faux Plutonis and ianna Orci, Macrob. Sat. 1. 16, 17; Warde Fowler, loc. cit. p. 26. Was Ovid conseious of this second sense of mundus, when Persephone and the Lord of the Shades are addressed: 'O positi sub terra numina mundi, in quem reccidimus, quicquid mortale creamur' (Met. x. 17) ?
    ${ }^{2}$ Clem. Alex. Protr. p. ${ }^{1} 4$ P.; Lucian's Scholiast, Rhein. Mus. 25 (1870), 548, quoted by J. E. Harrison, l'rolegomena, p. 121 ; Farnell, Cults, I11. Pp. 89, 327.

[^106]:    ${ }^{1}$ At Enna there was a $\sigma \pi \dot{r}_{\lambda} \lambda a \iota o v$, all round which grew a multitude of flowers at all seasons, and through this $\chi \dot{i \sigma \mu a}$ was an $\dot{v} \pi \dot{\prime} \nu o \mu o s ~ a ̀ \sigma v \mu \phi a \nu \eta \eta_{s}$ by which the $\dot{\alpha} \rho \pi a \gamma \eta$ took place, Ar. Mirab. Ausc. 82. Diodorus, v. 3, describes a smooth meadow with precipitous sides all round, which was the $\dot{o} \mu \phi a \lambda$ ós of Sicily. There was a large $\sigma \pi \dot{j} \lambda a \iota o \nu$ with a $\chi$ á $\sigma \mu a$ кат ${ }^{\prime} \gamma \epsilon \epsilon \nu$ towards the north. In the Vibia fresco (Maass, Orpheus, p. 219) the chariot bearing Pluton and Kore is conducted by Hermes to a round hole in the earth, the rim of which makes it resemble the mouth of a $\pi i \theta_{0}$ s.
    ${ }^{2}$ Ibid. p. $5^{8}$.

[^107]:    
    
    
     as qui finem cunctis et semina praebes, nascendique uices alterna morte rependis. Pluton, as god of the store, is like the Roman Consus with his underground altar and service of
    
     ȧтархаis уєраiрєтal. Wissowa identifies Consus' companion, Ops Consiua, with 'eine Verkörperung der reichen Fulle des Erntesegens,' Roscher, Lex. s.v. It is noteworthy that Himerius (vir. 2, p. 512) tells us that the mystae brought sheaves of corn ( $\delta \rho \dot{\gamma} \gamma \mu a \tau a$ ) to Eleusis. See also note at end of this paper, p. 166.
    
    
    
    ${ }^{3}$ Frazer, Encl. Brit. ${ }^{9}$ 23, 296 ; Farnell, Cults, 111. 15 ; Et. Mag. 448. 15, $\theta$ '́ $\sigma$ Oa
    
     p. 33. Nilsson (Griech. Feste, 324) adds a reference to Cornutus, Theol. 28, p. 56
    
     interpreted in this sense, it is clear that it might also be identical with the кatajayinthe carrying of the dimapai after harvest down into the store-chamber. Is this the explanation of the summer Thesmophoria at Delos? See Nilsson, Griech. Feste, pp. $316,317$.

[^108]:    ${ }^{1}$ Ibid. p. 88.
    ${ }^{2}$ Frazer, Adonis, 1906, p. 175 (my italics). J. Firmicus Mat. de err. prof. relig. 111., Attin uero hoc ipsum uolunt esse quod ex frugibus nascitur, poenam autem quam sustinuit hoc uolunt esse quod falce messor maturis frugibus facit: mortem ipsius dicunt quod semina collecta conduntur, uitam rursus quod iacta semina annuis uicibus redduntur. Dr Frazer adds that (like Kore) Attis was also identified with the spring flowers.
    ${ }^{3}$ Sikes and Allen on v. 379.
    ${ }^{4}$ Paus. vili. 15.2. The stone treasuries mentioned in the Andania Inscription (H. Sauppe, Die Mysterieninschr. von Andania, Göttingen, 1860 ; Dittenberger, Sylloge, 1883, p. 575), one of which was opened yearly at the Mysteries, appear to have been simply treasure-chests.
    ${ }^{5}$ ©ádapos $\theta a \lambda{ }^{\prime} \mu \eta$ are referred by Boisacq (Dict. Etym. p. 347) to the same root as

[^109]:    ${ }^{1}$ Pherekydes ap．Schol．Apoll．Rhod．4．1091；Paus．11．23．7，both cited by Jebb on Antig．945．Is Claudian＇s description of Ceres＇house at Enna，made by Cyclopes and plated with iron，reminiscent of a similar structure（de rapt．Pers．1．237）？Cf． also the кaтáyatov oíк $\eta \mu a$ into which Zalmoxis＇disappeared＂（ $\eta \phi \quad \phi \quad i \sigma \theta \eta$ ）and from which he＇appeared again＇（àvєфávך），Hdt．Iv． 95.
    
    ${ }^{3}$ Hom．hymn．Dem． 99.
    
    

    5 Hymn．Den．272：Paus．1．38．6．The custom of dancing round a $\phi \rho \varepsilon ́ a \rho$ gave rise to the proverb $\tau \dot{\eta} \nu \pi \epsilon \rho i$ тò $\phi \rho \in ́ a \rho$＇ó $\rho \chi \eta \iota \iota \nu$ ó $\rho \chi \epsilon \hat{\iota} \sigma \theta a \iota$ for＇skating on thin ice，＇ Plut．Mor． 68 в．A futeus must be meant，for there is no danger in dancing round an open spring．

    6Figured in Daremb．and Saglio，11．1229：La forme de la couverture y rappelle．．． l＇architecture adoptée dans les anciens trésors ou caveaux funéraires，et se retrouve presque identique dans les tombeaux à coupole de Mycènes．Telle est aussi à Rome l＇architecture du Tullianum．The Tullianum seems to have been a reservoir for the citadel．Some derive its name from tullii（tullios alii dixerunt silanos，alii riuos，Fest．531 f．）．The Lacus Curtius was evidently a 入áккоs or $\phi$ р́́aן，for it was marked by a puteal，supposed by some to enclose a locum fulguritum（Varr．Ling．Lat．v．150）．Suid．$\sigma \iota \rho o ́ s$, ó 入ákкos，
     in Hdt．IV．195．Compare the 入áккos in which Kallias ó $\lambda a \kappa \kappa o ́ \pi \lambda o v t o s ~ b u r i e d ~ g o l d, ~$ Plut．Arist． $3_{21 \mathrm{I}} \mathrm{E}$ ；and the dákкos кovlatós（plastered）for storing wine in Xen．Anab．

[^110]:    ${ }^{1}$ Varro ap. Aug. Civ. Dei, vil. 20 ; Cic. Nat. Deor. 11. 26, (Dis) rapuit Proserpinam ...quam frugum semen esse volunt, absconditamque quaeri a matre fingunt.
    ${ }_{2}$ Miss Harrison calls my attention to the similar custom in Borneo, where the Harvest Festival 'begins with the preparation of the seed-grain for the following season. Some of the best of the new grain is carefully selected by the women...enough for the sowing of the next season. This is mixed with a small quantity of the seed of the foregoing season, which has been carefully preserved for this purpose in a special basket. The basket contains grains of padi from good harvests of many previous years. This is supposed to have been done from the earliest time of padi planting, so that the basket contains some of the original stock of seed, or at least the virtue of it leavening the whole. The basket is never emptied, but a pinch of the old padi is mixed in with the new, and then a handful of the mixture added to the old stock. The idea seems to be that the old grain, preserving continuity, generation after generation, with the original seed padi of mythical origin, ensures the presence in the grain of the soul or spirit or vital principle of padi. While mixing the old with the new seed-grain, the woman calls on the soul of the padi to cause the seed to be fruitful and to grow vigorously and to favour her own fertility. For the whole festival is a celebration or cult of the principle of fertility and vitality-that of the women no less than that of the padi,' C. Hose and W. McDougall, Pagan Tribes of Borneo, 1912, 1. p. III.
    ${ }^{3}$ See Frazer, G. B. ${ }^{3}$ Part v. ii. 17.
    ${ }^{4}$ Hom. Hymn Dem. 473.

[^111]:    1 The emphasis is always on the use of the distributed corn for Sowing: Dion.
    
    
    
    
    
    
    
    
    
    

[^112]:    
    
    
    ${ }^{1}$ G. B. ${ }^{3}$, Part v. vol. I. 300 ; cf. vol. II. 20.
    
    
     $\kappa а \rho \pi \omega ̂ \nu ~ \delta \iota \delta o ́ \mu \epsilon \nu a t ~ \theta \epsilon \hat{\varphi}$. See J. E. Harrison, Prolegomena, 78 ff. ; Nilsson, Gr. Feste, 105 ff ., 332. In connection with the alleged use of the $\dot{\alpha} \pi a \rho \chi a i$ at the Eleusinian Haloia, it is worth noting that at the 'ancera festival in N. Africa the new corn is in some cases eaten on the threshing-floor, Doutté, Magie et Relig. dans l Afrique du Nord, 1909, p. 568.
    ${ }^{3} \dot{a} \pi a \rho \chi \dot{\eta}$ seems to be parallel to $\dot{a} \phi o \rho \mu \dot{\eta}$, 'that from which you start.' Thus the original sense of the word is not 'first-fruits,' regarded as thank-offerings for the ended harvest, but includes the fruit which is the beginning of the next crop. Cf. Ar. $\pi \in \rho \imath$
    
    

[^113]:    ${ }^{1}$ Frazer, ibid. 65 ff.
    
     p. 138 .
    ${ }^{3}$ That confusion had already gone far when the Homeric hymn was composed is shown by the fact that it makes the Rape occur at a time when all the flowers are in bloom. This suits neither the harvest nor the seed-time-the two moments when the corn really does disappear. It must be due to a ritual enactment of the whole story in spring.

    Since this paper was printed, I have come upon a note in Servius (on Verg. Bucol. 111. 104 Dic quibus in terris...Tris pateat caeli spatium non amplius ulnas) which all but identifies the cave of the Rape of Proserpine with a mundus : alii (dicunt) specum in Sicilia per quod rapta est a Dite Proserpina; alii mundum in sacro Cereris...simpliciter intelligendus est cuiuslibet loci puteus....Cf. Lobeck, Aglaoph. p. 832.

[^114]:    ${ }^{1}$ Bactađ $\bar{\eta} p a s, \dot{o}$, is of course derived from ßaorá $\langle\omega$. In a folk-tale from Phárasa in the Anti-Taurus mountains a woman troubled in this way goes to the priests for help, but in vain : jó кратíүкау da they could not secure her ( $=\delta \dot{\epsilon} \nu$ т $\grave{\nu} \nu$ éкриítovv).

[^115]:    1 Pieces of bread are distributed at the Greek Mass as a substitute for Communion, and so called divi $\delta \omega \rho o \nu$. When the loaf is used for the Mass itself, the stamped part is called the oppayis and plays a special part in the ritual, for which see Covel's Some account of the present Greek Church, 1722, p. 29.

    2 The letters TKIIV are commonly seen at the foot of the Cross in eikons of the Crucifixion.
    ${ }^{3}$ For this sce also Brockhaus, Die Kunst in den Athos-Klöstern, 1891, p. 276.
    

[^116]:    ${ }^{1}$ For these gems see Furtwängler's Antike Gemmen, 111. pp. 69 sqq.

[^117]:    1 Of these one is figured by Sir John Evans in The Ancient Stone Implements of Great Eritain, p. 61, and another, which is in the National Museum at Athens, by Miss J. E. Harrison in B. S. A. xv. p. 318, Fig. 1.

[^118]:    ${ }^{1}$ Probably the ancient Mykalessos, B. S. A. xiv. pp. 232 f.
    ${ }^{2}$ Grave 51, B.S.A. xiv. pp. $265-270$. Our vase is p. 268, No. 50. The siren is there wrongly described as a sphinx.
    ${ }^{3}$ For the photographs of this vase I am indebted to Professor Burrows who took them in 1909. The drawing used on Pl. I was made by M. E. Gilliéron fils in 1910. It gives a correct idea of the scene as a whole, but in several details it is defective as compared with the photographs; e.g. the tripod and the right hand of the man who faces the bird. Possibly the vase, which is in bad condition, had suffered in the interval. Cp. the way the early b. f. Sophilos fragment appears to have peeled, Wolters, Jahrb. xi11. p. 17. I was unable while writing these pages to go to Greece and examine the actual vase in Thebes Museum ; and owing to the war it has not been possible, as it would otherwise have been, to obtain information from Thebes by correspondence. For the same reason the dimensions of the vase are not fully given. [Miss H. Goldman, of the American School, has kindly written from Thebes (June 7, 1913) to say that the hgt. with lid is $\cdot 242 \mathrm{~m}$., without lid $\cdot 14 \mathrm{~m}$.]

    4 See below p. 172 , n. 3 .

[^119]:    ${ }^{1}$ B. S. A. xiv. p. 292, where hgt. is wrongly given as 10 m . instead of 20 . The smaller vase here illustrated is Gr. 18, No. 102.
    ${ }^{2}$ B. S. A. xiv. p. 294, No. 255.
    ${ }^{3}$ On Graves 51 and 18 see B. S. A. xiv. pp. 265 f. (51), 287 f. (18), 305-6; 306 (black figure); 308 f. (Boeotian kylikes) ; J.H.S. xxix. pp. 309, 310 and 'A $\rho \chi$. 'E $\phi$. 1912, pp. 113, 114, 253 (aryballoi); Ure, Black Glaze Pottery, pp. 5 f.
    ${ }^{4}$ E.g. B. M. 64. 10-7. 1567 and 1569 , Camiros, purple line ware like our Gr. 18 vase but with black rays and vertical wavy lines on reserved bands.
    ${ }^{5}$ E.g. B. M. Cat. Vases, 1v. F $136,137,470-472$, called ib. p. 8 and Fig. 17, lepastai ; Taranto Mus., Necrop. Canosa fondo Piacenza Sep. 1; C. R. St. Pét. 1860, Pl. I; Lecce Mus. (from Ruvo) 162 and (higher and more spherical) 159 . For hemispherical bowl with hemispherical lid, late r. f., cp. Bari Mus. 1501 and (no handles) B. M. F 306 (from Bari).
    ${ }^{6}$ Ath. Mitt. xv. pp. 3 I8f. Cp. Nilsson, Jahirb. xviur. pp. 124 f.
    ${ }^{7}$ For a deeper example see Gracf, Vasenscherben d. Akrop. No. 496, which, so Dr Gracf writes from Jena, appears to be very similar in shape to our vase. No complete lids to Vourva bowls are preserved, but some of the vases have a rim to receive one, e.g. Graef. ib. Rand oben wie zur Aufnahme cines Deckels ausgehühlt; Collignon-Couve, Pl. xxiv, 608 A. For extant fragment of lid, Jalirb. xviri. Pl. 9.

[^120]:    ${ }^{1}$ Dr Graef in a letter notices this point and inclines to the view that our vase is of Eastern or island fabric, but adds that since Vourva ware must have been under Eastern influence, the similarity of shape is in any case significant.
    ${ }^{2}$ B. S. A. xiv. p. 269, Fig. 14, No. 231, and ib. Pl. IX b.
    ${ }^{3}$ On 23: see Droop J.H.S. xxx. p. 27, n. 42 (where 'exact' is inaccurate). Droop sees Laconian influence. I hope to discuss the Rhitsona b.f. kylikes in 'A $\rho \chi$. ' $巨 \phi .1914$.

[^121]:    1 As often on archaic vases, Weicker ap. Roscher, Lexicon, Seirenen, pp. $618,628$.
    ${ }^{2}$ The similar combination of vessel and stand, Vasensch. d. Akrop. 590 a, Pl. 27, is labelled $\lambda \dot{\epsilon} \beta \eta$ 的 by the vase painter. ${ }^{3}$ Also Vasensch. d. Akrop. $65_{4}, b, c$, Pl. 41.
    ${ }^{4}$ The curious scene of two sirens with a tripod between them, C. R. St. Pét. 1874, Pl. II, 7 (cp. ib. 1866, p. 58), throws no obvious light on ours.
    ${ }^{5}$ Schol. Ran. inóo. Iv (Didot, p. 274 : omitted by Rogers, Frogs, p. xlv, as 'very stupid and worthless').
    ${ }_{6}$ r. f. amphora, Polygnotan style, from Ruvo, Roscher, Lexicon, Marsyas, Fig. 5.

[^122]:    1 There is no room on the missing fragment for the legs of a standing crane, but cp. Ath. Mitt. x111. Pl. x11, Kabiric fragment with unquestionable pygmy and crane, where the crane's body almost touches the ground line, and the legs slope very much forward, crossing the ground line as do those of our siren. Or the legs might be regarded as doubled up in flight. For a human figure advancing on a bird (siren?) that is apparently rising in flight, cp. Vasensch. d. Akrop. 654 a, Pl. 42 (der Vogel scheint herabzufliegen).
    ${ }^{2}$ Furtwängler, Berl. Cat. Vas. I. No. ${ }_{17} 85$, Kranich wie grosser Schwan gebildet.
    ${ }^{3} \mathrm{xv}$. p. $711 . \quad+1 \mathrm{ix} 390 \mathrm{~B}$ [Ath. omits $\chi \eta \nu 0 \mu \epsilon \gamma^{\prime} \theta \epsilon \epsilon \mathrm{s}$ ].
    ${ }^{3}$ On B. M. B 77 the pygmy is twice the size of his bird.
    6 Cp. e.g. Gerhard, Auserlesene Vasenbilder, Pl. cvi.
    ${ }^{7}$ Cp. Puncb cxliv. p. 40 , Fig. 105.
    8 Panofka, ib. p. 90, speaks not of a goose and a noose, but of a swan and a leading string. For bird and leading (or rather driving) string, cp. Hague Mus. No. 393, below p. 177, n. 2: but on Panofka's vase the string is not attached to the goose.

[^123]:    1 'Exercice d'haltères (?)' de Ridder, ad loc.
    ${ }^{2}$ As on our vase, one figure faces a bird (large cock).
    ${ }^{3}$ Note comedies named 'Sirens' by Epicharmos (Mullach 1. p. 140), Theopompos and Nikophon (Meineke, If. pp. $81 \mathrm{r}, 850$ ), that seem to have treated of the sirens' dealings with Odysseus. If our siren scene burlesques an epic legend we may compare B.S. A. xiv. Pl. x. g from Grave 50 (ib. p. 257 f.), roughly contemporary with the grave in which our vase was found. A kneeling figure (Oedipus?) is clipping the Sphinx's wings from behind. With this last cp. Vasensch. d. Akrop. $654 a$, Pl. 42. A crouching man attacks a flying figure (only tail and part of wing preserved) from the rear. Graef suggests that the flying figure is a bird and the man a $\sigma \pi \lambda a \gamma \chi^{\nu} \pi \pi \tau \eta s:$ but B.S.A. xiv. Pl. x.g suggests that the flying figure may be a siren. In that case the figures stirring a $\lambda \epsilon \beta \eta \xi$ behind the man with the knife might be brought into connexion with the sirens' cooking vessels mentioned in Theopompus' Sirens, Meineke, frag. iv.
    ${ }^{4}$ Ath. Mitt. xiri. Pl. xir.; B. M. B 77 ; Boston Mus. Rep. 1899, p. 80, No. 32 ; Scheurleer, Cat. Oudheden 's Gravenhage, No. 393, Pl. xxxvir.; Arch. Anz. 1891, p. 119 , No. 18 (mannikin chases two swans).
    ${ }^{5}$ Ath. Mitt. xill. pp. 423 f.

[^124]:    1 No. $6{ }_{14}$, Pl. xxv. and Fig. 5.
    ${ }^{2}$ E.g. lotus on 1. and running figure on r. of C. and C. Fig. 5 : the scene is said by Couve, B. C. H. xxir. p. 293, n. 2, to be 'assez voisin' to Berl. Cat. Vas. 1785 , a Kleinmeister kylix quoted above, p. 176, n. 2. ${ }^{3}$ B. C. H. xxıI. p. 293.

    4 'Figures noires, sans couleurs de retouche, sur fond jaune.... Le dessin par endroits paraît viser à la caricature.' C. and C.

    6 Athens, one of the vases numbered 10530 (Kabirion) ; Ure, Black Glaze Pottery, Pl. xvir. 29 (Rhitsona); Bonn Mus. Inv. 804 (Thebes).
    ${ }^{6}$ I know only Edgar, Cairo Mus. Cat. Vas. Pl. x. 26. 197 (bought, Alexandria, where Boeotian black figure traditions probably persisted, see Arch. Anz. 1909, p. 18).

    7 B. C. H. xx11. pp. 289, 290.
    8 A fairly thick red band running round inside (not noticed in Collignon and Couve) favours Bocotian origin: see J.H.S. xxix. p. $35^{1}$. In C. and C. it is catalogued under Ancien Style Ionien et Corinthien.

[^125]:    ${ }^{1}$ Neut Jahrb. f.' Philch. u. Pacd. cxish. (1891), pp. 823 ff.

[^126]:    1 Über die Echtheit der lucianischen Schrift de Saltatione, Halle, 1894.
    2 Cf. Libanius, ed. Förster, 1908, IV. p. 416 . Schmid fell into the same trap when he ascribed to Rothstein (Ouaest. Lucian. s888, p. 38) the opinion that Libanius wrote the Lucianic dialogue. See Bursian, CVIII. 1901, p. 254, and Förster, l.c., P. 407, n. 1.

    3 Wochenschr.f. Kl. Philol. 1894 , No. 23, p. 627.
    ${ }^{4}$ Bursian, cvili. 1901 , p. 254.
    ${ }^{5}$ Lucian und Menipp, pp. 365-370.

[^127]:    ${ }^{1}$ Pisc. 8, 18, 25, 26, 32, 37, Herm. 48, 63, Merc. Cond. 24.
    ${ }^{2}$ L'Alticisme de Lucien, 1897, pp. 124 ff.
    ${ }^{3}$ Der Atticismus, 1887, 1. pp. 250 ff.

[^128]:    ${ }^{1}$ Lykinosdialoge, Progr. Hamb. 1886, pp. 35 ff.
    ${ }^{2}$ op. cit. p. 365 , n. 2.
    ${ }^{3}$ Essai sur la Vie et les Cuuvres de Lucien, 1882, p. 49.
    ${ }^{4}$ l.c. I did not see Schmid's reference to Verus till after my own theory was formed.
    ${ }^{5}$ L'Annuaire de l'Association pour les ćtudes grecques, 1879.

[^129]:    1 I know of only onc other allusion to Antioch in Lucian, Pseutol. 20, 21.
    ${ }^{2}$ Eissai, p. $18 .{ }^{3}$ DeSalt. $76 .{ }_{4}$ Verus, 8. in.

[^130]:     uses it of Romans, e.g. D. Mort. 12. 7, Ver. Hist. 2. 17.
    ${ }^{6}$ c. $4^{6 .} \quad 7$ c. 20 . ${ }^{8}$ cc. $21,32,55$.

[^131]:    Pl. xii, p. 81.
    ${ }_{2}$ Millin, Gall. Myth. II. pl. cxxv, no. 466. Él. Cer. iIf. 14.
    ${ }^{3}$ Schneider in Arch. Epig. Mitt. aus Oest. 1879, p. 28, thought the vase to be a forgery, though he had never seen it. Further mentions are made by Hartwig in Mristerschalen, p. 59, and by Bulle in Roschers Lexikon, 111. 2, p. 2855.

[^132]:    ${ }^{1}$ 111. $37 \mathrm{I} . \quad{ }^{2}$ De Vario Usu Tridentis.
    ${ }^{3}$ J. H. S. x111. p. $13 . \quad 4$ Rhein. Mus. 1905 , p. 1 ff.
    ${ }^{5}$ The Thunder-weapon in Religion and Folklore, chap. vii.
    ${ }^{6}$ Published in part in Ant. Denk. I. pl. 7.
    7 l.c. p. 23.

[^133]:     Hermes fishing see Él. Cer. III. 75, from a b.-f. kylix.

[^134]:    1 A brief summary of the main argument of this paper has appeared in Rassegna Numismatica, 1913 (Gennaio-Marzo), pp. 5, 6 and in the Bollettino Riassuntivo of the Third International Archacological Congress, p. 86.

[^135]:    ${ }^{1}$ Probably a laurel branch, possibly an orb.

[^136]:    ${ }^{1}$ So also on pp. 210, 211 and in the map. It may well be preferable, however, since this phrase dates from 90 A.D. and the great 'Minerva' from before 88 , to take templ. D. Aug. ad Mineruam as 'the Divus Augustus temple by the great Minerva.' There were other templa diuorum Augg. then, e.g. Gens Flauia, porticus diuorum in Campo Martio, templum diuorum ( $=$ aedes D. Titi et Vespasiani) in Foro. Pliny's Minerva library might then be rooms (?a Palladium) in Caligula's palace adapted by Vespasian or Nero, and that of the Templum Novum sacred only to Apollo and Augustus.

[^137]:    ${ }^{1}$ B. B. Rogers The Birds of Aristophanes London 1906 p. v ff.
    ${ }^{2}$ See e.g. J. B. Bury $A$ History of Greece London 1900 p. 458 ff.

[^138]:    ${ }^{1}$ Aristoph. pax 475 ff.
    ${ }^{2}$ That this is the true form of the name appears from the Corp. inscr. Att. ii. 3 no. 1723 ГIइTOKAH乏 $\vdots \Gamma I \Sigma \odot E T A I P O \vdots$ A $\mathcal{M O N E Y \Sigma ~ ( M e i s t e r h a n s ~}$ Gramm. att. Inschr. ${ }^{3}$ p. 54).
    ${ }^{3}$ A similar allusion to Argive topography occurs in Aristoph. av. 399 àmotaveiv $\dot{\epsilon} \nu$ 'Opveriés, where again the name is selected partly because it suggests birds (ö $\rho \nu \epsilon \epsilon$ ) and partly because the town was uppermost in the thoughts of the people owing to its capture by Athenians and Argives in 416. Does the oracle ib. 967 f. $\dot{\alpha} \lambda \lambda^{\prime}$ örav
     refer to the alliance of Argos, whose symbol was the wolf, with Corinth (KópıvOsкоро́v $\eta$ ) ?
    ${ }^{4}$ Aristot. frag. 287 (Frag. hist. Gr. ii. 190 Muller) ap. schol. vet. Theokr. 15. $6_{4}=$ Eudok. viol. $414^{h}$.

[^139]:    1 Paus. 2. 36. 2. 2 Id. ib. 17. 4. $\quad 3$ Strab. 372.
    
    
    ${ }_{5}$ Mart. ep. 1o. 89.

[^140]:    1 Aristoph. av. 1633.
    ${ }^{2}$ Id. ib. 1534 f., 1600 f.
    
    ${ }^{4}$ Id. ib. 1537 ff .
    ${ }^{6}$ Id. ib. 1753.
    ${ }^{6}$ Id. ib. $1720-1765$ trans. B. B. Rogers.
    ${ }_{7}$ This rendering, I fear, implies a confusion of $\beta$ aroì $\epsilon a$, 'queen,' with $\beta a \sigma \iota \lambda$ eia, 'kingdom.' That the former, not the latter, word was intended by the poet is clear from the metre of lines $1537,1753$.

[^141]:    ${ }^{1}$ H. W. Stoll in Roscher Lex. Myth. iii. 2512.
    ${ }^{2}$ Id. ib. i. 2653 f.
    ${ }^{3}$ Aristoph. av. 1714 тád $\lambda \omega \nu$ кє $\rho a v \nu o ́ v, \pi \tau \epsilon \rho o \phi o ́ \rho o v \nu i o ̀ s ~ \beta \epsilon ́ \lambda o s . ~$

[^142]:    1 Zeus Bafı入єús and Hera Bafiגєıa in a federal oath of the Boeotians and Phocians （Ath．Mitth． 1878 iii． 19 ff．）；Hera Baбi入ís（Corp．inscr．Gr．sept．i no． 3097 ）beside Zeus Barı $\lambda$ és at Lebadeia（O．Gruppe op．cit．p． 78 n．17）．So Hom．h．Her．iff．
    
    
    
    

    2 Phoronis frag． 4 Kinkel ap．Clem．Al．strom．1．164． 2 ＇O $\lambda v \mu \pi t \alpha ́ \delta o s ~ \beta a \sigma \iota \lambda \epsilon i \eta s, ~$ ${ }^{7} \mathrm{H} \rho \eta \mathrm{s}$＇A $\rho \gamma \epsilon$ ins，Dittenberger Syll．inscr．Gr．${ }^{2}$ no． $6{ }_{17}$ ， 5 f．$=$ Michel Recueil d＇Inscr．gr．
    
    
     ${ }^{7} \mathrm{H} \rho a s$ к $\lambda \epsilon i \theta \rho a \phi \epsilon ́ \rho \omega \nu=$ Kaibel Epigr．Gr．no．822． 5 ff ．＝Cougny Anth．Pal．Append． 1.
    
    

    3 There appears to have been no temple of Hera at Athens till the time of Hadrian （Paus．1．18．9），unless we reckon the ruined temple on the way from Phaleron to Athens，said to have been fired by Mardonios（Paus．1．1．5，10．35．2）．
    ${ }^{4}$ Possibly not so original as we might suppose．I incline to think that Kratinos had hit upon a very similar idea．He is known to have dubbed Perikles Zeús and Aspasia both＂H $\rho a$ and Túpavvos：he is suspected of having called Aspasia Tupavyo－ $\delta$ aí $\omega \nu$（Meineke Frag．com．Gr．ii． 61 f．， 147 ff．）．When，therefore，we read in schol． Aristoph．$a v .{ }_{1} 536 \ddot{\epsilon} \sigma \sigma \iota \delta \dot{\epsilon}$ кai $\pi a \rho \dot{a} \mathrm{~K} \rho u \tau i \nu \omega \dot{\eta}$ Baбi $\lambda \epsilon \iota a$ ，it is tempting to conclude that Kratinos spoke of Perikles and Aspasia as the Zeus and the Hera Bafi入єia of Athens．
    ${ }^{5}$ Aristoph．av． 480,635 f．， 1534 f．， 1600 f ．， 1626 f．， 1631.
    
    
    

[^143]:     Libye, Belos, Anchinoe, Aigyptos, Danaos, etc.) and Phoenicia (Agenor, Kadmos, Phoinix, etc.) play a large part in the mythology of the early kings of Argos.
    ${ }^{1}$ Brit. Mus. Cat. Vases iv. 6I no. frog.
    ${ }^{2}$ F. G. Welcker Alte Denkmäler Göttingen $186_{4}$ v. 410 pl. b, 4, J. Overbeck Griechische Kunstmythologie Hera Leipzig 1873 p. 140 ff. (B) Atlas pl. 10 , 1 and $1^{a}$.

    The vase, when I first saw it, had been very skilfully repainted so as to appear quite complete. My friend $\mathrm{Mr} \mathrm{H} . \mathrm{B}$. Walters kindly had it cleaned for me with ether (September 29, 1910), and thus fixed the exact limits of the restoration. I am therefore enabled to publish here for the first time an accurate drawing of the design by that excellent draughtsman, the late Mr F. Anderson.
    ${ }^{3}$ The panther appears to be a variant of the lion, which on other vases representing the judgment of Paris precedes (Welcker op. cit. v. 388) or is carried by Hera (id. ib. v. 398 f. pl. R, 2, A. Furtwängler Beschreibung der Vasensammlung ion Antiquarium Berlin 1885 ii. 716 ff. no. 2536 ) and is usually explained as symbolising the sovereignty of Asia (Eur. Tro. 927 f., Isokr. Hel. 41, alib.). These adjuncts recall another statue of Hera at Argos: Tert. de cor. mil. 7 Iunoni vitem Callimachus induxit. ita et Argis signum cius palmite redimitum, subiecto pedibus eius corio leonino, insultantem ostentat novercam de exuviis utriusque privigni.
    ${ }^{1}$ Mr H. B. Walters in the Brit. Mus. Cat. Vases iv. 61 says: 'Before Hera hovers

[^144]:    Iris or Nike, with wings spread,' etc. But, if Nike were hovering in the air, her feet would point downwards : see e.g. F. Studniczka Die Siegesgöttin Leipzig 1898 pl. 3, 19 ff.
    ${ }^{1}$ Cp. P. Gardner $A$ Grammar of Greek Art London 1905 Pp. 244-253.

[^145]:    ${ }^{1}$ 1v. 72. Apollodorus, 111. 156, gives him 20 daughters but names only Aegina.
    ${ }^{2}$ Schol. at Pind. Ol. vil. 24. This is the more striking as the Rhodians believed their isle to have risen out of the sea.

[^146]:    ${ }^{1}$ Another 'Asopid' who seems connected with Poseidon Hippios, and has Gorgon affinities, is Harpina, mother by Ares of Oenomaus, Paus. v. 22.
    ${ }^{2}$ See C. O. Muller's Aeginetica on Aegina's membership of the pre-Achaean Calaurian Amphictyony, whose patron-god was Poseidon. In historical times the island's patron was Zeus Hellenios.

[^147]:    1 When the island was Dorised, the 'old inhabitants' were not driven out. Paus. 11. 33.

    2 The Eagle was perhaps their totem. Zeus appeared in that shape to Aegina, on whom he begot Aeacus. Cf. Leda's Swan.

[^148]:    ${ }^{1}$ Published at Paris by Didot.
    ${ }^{2}$ Also published by Didot.

[^149]:    ${ }^{1}$ Or possibly early $1^{\text {th }}$ t.

[^150]:    1 See below, towards the end of this section.

[^151]:    ${ }^{1}$ Included in Muller's Geog. Grafci Min.
    

[^152]:    ${ }^{1}$ Or, arouiov. $\quad 2$ First quoted by Welcker.

[^153]:    1 i.e. with the loss by haplography mentioned below.
    ${ }^{2}$ It may be mentioned that in Pauly-Wissowa's Encyclopaedia there is a list of 128 Apollonii, none of whom however is mentioned as the author of the ioropiat $\theta a \nu \mu a ́ \sigma \iota a \iota$.

[^154]:    ${ }^{1}$ Wescher and Foucart, Inscr. de Delphes, iv. 26.

[^155]:    ${ }^{1}$ Die Stadt Athen im Alterthum, 1. 624, note 4.

[^156]:    ${ }^{1}$ Rheinisches Museum 38.481 ff.

[^157]:    ${ }^{1}$ Unger, Rh. Mus. 38.48 mf ., suggests that Oropus went over to Athens as soon as the Boeotian league was dissolved, i.e. c. 172 b.c., cf. Livy 42.44. An article by Wilamowitz, 'Oropus und die Graer' (Hermes, 21. 103 ff .), throws a great deal of light on the problem of Oropus.
    ${ }^{2}$ Wilamowitz (Hermes, 21. 103 ff .) rightly says that the fragments must have been written at a time when Athens was free and Chalcis in subjection, but when both cities were equally undevastated. He then says that the years 228-201 are such a period.

[^158]:    ${ }^{1}$ Cf. what Wilamowitz (Pbilologische Untersuchungen, 4. 165) says about Heracleides, "Die wenigen Blatter aus den hellenischen Stadtebildern sind an unmittelbarer Lebensfalle in der griechischen Literatur fast unerreicht."

[^159]:    ${ }^{1}$ May 1 take the opportunity of recalling a small point I made years ago in an account of the Early Age of Greece? Professor Ridgeway speaks of the unexplained names of the great Achaians of Homer, and connects the fact with their being immigrants. I called attention to Fick's equation of 'A $\chi i \lambda \epsilon u$ 's (abbreviated for
    

[^160]:    ${ }^{1}$ See Cumont, Astrology and Religion among the Greeks and Romans (American Lectures), pp. 24, 46.
    ${ }^{2}$ Cf. Bund $5^{1}$ (SBE v. 21).

[^161]:    ${ }^{1}$ Hirt in his map assumes that the Aryan migration came through the Caucasus, the Scyths pushing back later on. The other line seems to me more probable.

[^162]:    1 See notes and references in Early Zoroastrianism (index s.v.).
    ${ }^{2}$ This would be possible if the loss of $d h$ were set down to the Semitic medium through which the name has come.

[^163]:    ${ }^{1}$ See Early Zoroastrianism, p. 5 f., for references: and the discussion on the subject in J.R.A.S. 1909 and Igro.

[^164]:    ${ }^{1}$ There is a possible hint of a frontier between $d h$ (still voiced) and $d$, down in the south-east of Europe and in Asia Minor, in the prehistoric period of Greek. A series of place-names in Greece, with one or two common nouns, show the formative suffix $-\nu \theta_{o-}$ or $-\nu \theta-$. We naturally compare the series in -nd- found in Asia Minor. Remembering that Macedonian retained the voiced aspirates in historical times (Kretschmer, Einleitung, 288), we might suggest that $d / 2$ was still sounded in Greece, and $d$ in Asia Minor. Kretschmer hinself (pp. 293 ff .) thinks that the names started from $n$ t, which the later Greeks wrote $\nu \theta$, and their eastern neighbours changed to $n d$; and he essays to prove that the language of prehistoric Greece was not Indo-Germanic at all. If that is true, of course my suggestion disappears; but I think the alternative possibility may be noted.
    ${ }^{2}$ The very partial change of $q^{\frac{2}{2}}$ to $f$ (Streitberg, Urgerm. Gramm. p. 111) may be a trace of this infection.
    ${ }^{3}$ I should put the Greeks (except the Acolic group) on the $q$ side of the line, so as to account for the dentalising of $q^{\underline{u}} e$ etc., and the reversion of the guttural in the combinations $u \eta^{* *}, q^{*} u$ ctc. Both of these processes demand a proto-Greek guttural.

[^165]:    ${ }^{1}$ A noteworthy connexion of ideas in the Indian and the Germanic spheres may be cited from Hillebrandt's section on Ritual etc. in the Indo-Aryan Grundriss (pp. 5 f.). 'Twelfth Night' answers curiously to Skt dvādafāha-the twelve days or Kleinjahr which make a lunar year of 354 days up to a roughly estimated solar year. The word $i c e$ is a suggestive contact in vocabulary, shared by no other Idg. dialect-group.

[^166]:    1 See Justi in the Iranian Grundriss, ii. 396 ; also Hirt, Die Indogermanen, ii. 582.
    2 See my Lectures for the investigation of the sphere of Zarathushtra's work.
    3 I have read somewhere a comment on the unsymmetrical character of the Sanskrit representatives of the palatals, but I cannot trace it now.

[^167]:    ${ }^{1}$ Franks Bequest, The Treasure of the Oxus, by O. M. Dalton, 1905.

[^168]:    ${ }^{1}$ e.g. Dalton, op. cit. p. 11 .

[^169]:    ${ }^{1}$ Roscher, Ausfilhrl. Lexikon, s.v. Gryps.
    ${ }^{2}$ P. Gardner, The Coins of...Bactria and India, pls. 11, 111, iv.

[^170]:    ${ }^{1}$ See Mariette, Les Mastabas, pp. 74, 75. Murray, Saqzara Mastabas, Pls. 1, 11.

[^171]:    ${ }^{1}$ De Mortillet, Musée préhistorique, fig. 1153. The axe figured in Montelius, Civilisation primitive en Italie, Pl. xxxiii. 15, after de Mortillet, fig. ${ }^{1154}$, has an engraved swastika. Note a circle in relief on the Valentano axe, Pl. cxlii. 14.
    ${ }^{2}$ Montelius, op. cit. Pl. cxxi. 21-27, hoard from Monte Rovello; cf. Bull. di Paletn. 1909, Pl. ix and xi.

[^172]:    ${ }^{1}$ Bull. di Paletn. xxin (1897), pp. 119, 120 , with statistics of Sicilian examples, and xxvi (1900), p. 167. Compare Quagliati's remarks, ib. Xxix (1903), pp. 114, 119 ; he figures an axe from the great Manduria hoard which closely resembles those illustrated above, even to the knob on one side of the butt. These scuri seem to be common in Terra d'Otranto as well as in Sicily ; in Bull. di Paletn. xxvı. p. 190, Pigorini describes a hoard of nineteen.

[^173]:    ${ }^{1}$ Gerhard, A.V.III. i84, and a poor cut in Daremberg and Saglio, s.v. Hasta, where the author of the article oddly describes the spear as having a 'double pointe.'

[^174]:    ${ }^{1}$ Op. cit. p. 175, note 1 , he mentions a similar iron butt in the Museo Etrusco at Florence. There is another in the Copenhagen Museum, noted by Sophus Muller, Aarbpger for Nordisk Oldkyndighed, 1882, p. 326.

[^175]:    1 The classical Lychnidus, the Byzantine Achris or Achrida; to-day called by Greeks and Vlachs Okhridha, by Bulgars, Turks and Albanians Okhri.
    ${ }^{2}$ See Gelzer, Der Patriarchat von Achrida (Sächsische Abhandlungen, 1902), p. 8 : this and his two articles in the Byzantinische Zeitschrift $(1892,1893)$ are the best existing accounts of the Patriarchate of Achrida.

[^176]:    ${ }^{1}$ This is the Albanian name: the Turks and Slavs call it Giorja, the Vlachs Kortsheaoa, and the Greeks Koritsa.

[^177]:    ${ }^{1}$ Weigand, Die Aromunen I. p. ror: the name is a hellenized form of the Albanian Muskopoie and this word is of Slav origin. The Kortsha district is one of those in which the Albanian population has been spreading eastwards and pushing back the Bulgarian.
    ${ }^{2}$ For an account of Moskhopolis and district see Leake, Northern Greece 1. p. 343 ; Weigand, Die Aromunen I. pp. 96 ff.
    ${ }^{3}$ My copy gives $\pi o \iota \mu \dot{\eta} \nu$, but $\pi o \dot{\prime} \mu \nu \eta \nu$ may really be the right reading.

[^178]:    ${ }^{1}$ This is a Greek village near Tshotili to the west of Lapsishta (Anaselitsa), and it is remarkable that to-day Greek masons from Krimini are often employed by the Vlachs of Northern Pindus, who are never masons themselves.

    2 v. Gelzer, op. cit., p. 104; Weigand, Die Aromunen 1. p. 99.
    ${ }^{3}$ v. Gelzer, op.cit., Pp. 104, 139.
    4 v. Gelzer, op. cit., p. 14.
    ${ }^{5}$ I. 226, 1 .

[^179]:    ${ }^{1}$ Krumbacher, Byz. Litteratur, p. 553.
    ${ }^{2}$ e.g. Chalcocondylas, 1. pp. 16, 17, 29 (ed. Bonn).

[^180]:    1 This line is also quoted by Bp Fisher on the Seven Penitential Psalms, but with vult instead of scit.

[^181]:    ${ }^{1}$ Not Pliny. In several sections (e.g. 22, 64) matter peculiar to Solinus, or at least not drawn from Pliny, is embodied.

[^182]:    ${ }^{1}$ The St John's MS. has also a few later marginal notes.

[^183]:    Readings of the MS. :- ${ }^{1}$ poratam discuscit. ${ }^{4}$ cecat. ${ }^{5}$ designant. ${ }^{6}$ clause. ${ }^{7}$ Plin. N.H. xx. 113 sqq. on Apium, "visus quoque claritati inimicum." ${ }^{8}$ Consipiens.

[^184]:    ${ }^{1}$ An Enquiry into the Art of the Illuminated Manuscripts of the Middle Ages, by John Adolf Bruun, Part I, Celtic Illuminated Manuscripts, 1897 (p. 48).

[^185]:    ${ }^{1}$ Celtic Art in Pagan and Christian Times, p. 258.

[^186]:    ${ }^{1}$ Owing to limitations of space, only one ME form is as a rule quoted: many variant forms have been recorded, but unless they have any bearing on the question of the ultimate history of the name they are not quoted here. The following abbreviations are used:

    Ass. Assize Rolls. Surtees Soc.
    Bı̈̈rk. Bjorkman. Zur Altenglischen Namenkunde.
    Brkb. Brinkburn Cartulary. Surtees Soc.
    Сн. Calendar of Charter Rolls.
    Cl. Calendar of Close Rolls.

    EDD English Dialect Dictionary.
    FPD Feodarium Prioratus Dunelmensis. Surtees Soc.

[^187]:    1 The single toft and the now lost -by mentioned above hardly invalidate this statement.

[^188]:    ${ }^{1}$ The Wansbeck is for earlier Wanespic and does not contain this suffix. Bulbeck Common is so called from the Barony of Bulbeck, of which it formed part. Bulbeck is from the Norman Bolebec.
    ${ }^{2}$ Dalton-le-Dale (co. Durbam) is mentioned in Bede as Daltun, showing that the word was in common use in pre-Viking days.

[^189]:    ${ }^{1}$ Amm. Marcellinus, xv. 9. 4 (from Timagenes): Drasidae (Druidae ?) memorant re uera fuisse populi partem indigenam; sed alios quoque ab insulis extremis confuxisse et tractibus transrhenanis, crebritate bellorum et alluuione feruidi maris sedibus suis expulsos. Cf. also Caesar, Gall. in. 4 ; vi. 24.
    ${ }^{2}$ Cf. especially Kossinna, Korrespondenz-Blatt f. Anthropologie, 1907, p. 57 ff.; Kauffmann, Deutsche Altertumskunde, p. 174 ff.

[^190]:    ${ }^{1}$ Cf. Caesar, Gall. vı. 19 ; Diodorus, v. 28 ; Mela, 111. 2. 19. See also Kauffinann, op. cit., p. 265 , note 2 .

[^191]:    ${ }^{1}$ Cf. Bremer in Paul's Grundriss d. germ. Philologie, iII. p. 774 f. ; Much, Deutsche Stammeskunde, p. 55 (where some doubt is expressed as to the Celtic origin of this suffix)
    ${ }^{2}$ Cf. especially Kossinna, Beiträge, xxvi. 283 , note ; Kauffimann, Deutsche Altertumskunde, p. 68.
    ${ }^{3}$ But cf. Korrespondenz-Blatt f. Anthropologie, 1906, p. 167 (in the report of a paper read by Prof. Schröder) : 'So wird es möglich sein, die paar Dutzend keltischen Flussnamen, welche Mullenhoff für das vor allen Dingen streitige Weser- und Emsgebiet verzeichnete (denn die Elbe ist fast ganz germanisch, der Rhein fast ganz keltisch), auf einige Hundert zu steigern.' So far as $\mathbf{I}$ can learn, this paper has not been published.

[^192]:    ${ }^{1}$ The -g-seems to be due to Roman (or Greek ?) pronunciation. The later forms of the name are Vuisura, Vuisara, Vuesera, etc. Cf. Mullenhoff, p. 215, notes.

    2 With regard to the name Ems (Amisia, Amisis, etc.) Mallenhoff (pp. 217, 221) seems to have entertained some doubt, though apparently on the whole inclined to treat it as Celtic. In view of names such as Aliso, Alisia (Alesia), Alisincum, Alisontia, Anisus, there is obviously much to be said in favour of this view.

[^193]:    ${ }^{1}$ Bremer, op.cit., p. 775 , is inclined to regard Wipper as Celtic. On the other hand Visurgis is interpreted as 'Ligurian' by D'Arbois de Jubainville (Les premiers Habitants de l'Europe ${ }^{2}$, p. 177 ff .), who connects it with the place-name Vézeronce (Dep. Isere), called Visorontia in the sixth century, and the river-names Visone (Piedmont), Veizere (a tributary of the Dordogne), formerly Visera, etc. Cf. Cramer, Rhein. Ortsnamen, p. 75 f., where attention is called also to the German river-names Wiese (Baden), Wieslauf (Würtemberg), etc., as well as (p. 74) to W. gww, ' moisture,' 'river.' The assumption that gwy must necessarily represent a stem *Weis- is probably erroneous, and I see no objection to identifying this word with Visone and Wiese, as well as with Ouse $<$ Ang.-Sax. Wuse, which seems to represent an earlier *Wise; cf. Skeat, Place-names of Cambridgeshire (Camb. Antiq. Soc. Publications : 8vo Series, No. xxxvi.), p. 46.
    ${ }^{2}$ Viuri (gen.), Bede, H. E. iv. 18, v. 21 ; ad Viuraemuda, v. 24. Later forms are Weor, Weorra, Wirra, etc. (Sym. Dunelm.).

[^194]:    ${ }^{1}$ D.B. Wevre, Wivreham; later Wever(e), etc. (cent. xiii). The same name may perhaps also be traced in Weaverthorpe in the E. Riding (D.B. Wifretorp), though there is apparently no river there now.
    ${ }^{2}$ The name seems to go back to the twelfth cent. in this form (cf. Dugdale, Mon. Angl. v. 594-apparently from the register of Holme Cultram Abbey, which has not been published). Waver probably represents an earlier *Waefer, with the Northumbrian change $e>\mathscr{e}$ after $w$.
    ${ }^{3}$ Unless of course one is prepared to accept the 'Ligurian' theory, which cannot be discussed herc. It seems to me that the supposed traces of Ligurian in northern Europe may be explained with far more probability as due to the existence of common elements in Ligurian and Celtic.
    ${ }^{4}$ It was pointed out by Müllenhoff (p. 213 f.) that the name of the Saale (£ádas)the chief river of Thuringia-recurs in several districts which were once Celtic, though he himself rejected the idea that it was of Celtic origin. But the word sole, 'salt-water,' is not conclusive evidence to the contrary. The name Unstrut, which he likewise claimed as Teutonic (p. 214 , note), seems to have undergone some change which was not purely phonetic. The earliest known form Onestrudem (Greg. Tur. 1II. 7) suggests that the second element may be identical with Struth, Strote, a name borne by more than one stream in Westphalia (cf. Jellinghaus, Westfal. Ortsnamen, p. 125), and which bears a suspicious resemblance to W. Dr $\mathbf{r w d , ~ ' s t r e a m , ' ~ I r . ~ s r u t h . ~}$
    ${ }^{5}$ E.g. Liger, Arar, Isara, Samara, etc. in France ; Isara, Dubra, etc. (cf. Embscher, Wetter, Neckar, etc.) in S. Germany and the Rhincland.

[^195]:    1 Unless, possibly, Alara may be identified with Arar.
    ${ }^{2}$ It may be observed that many of them contain an $n$-suffix, e.g. Wïmme (cf. p. 3 17), Leine, Eder (Adrana). The last of these is usually regarded as Teutonic (: O.H.G. atar, Ang.-Sax. aedre). But this is also a common suffix in Celtic river-names, e.g. Sequana, Matrona, Axona, Sabrina, Alauna.
    ${ }^{3}$ I do not understand the identification of this name with Seine (Sequana) proposed by Müllenhoff (p. 22 If.) and Kauffmann (p. 69, note). Are not the Frankish and Ang.-Sax. forms of the latter-as also the modern form-due to a late Latin soundchange?
    ${ }^{4}$ E.g. for the case of Waal (Vahalis, Vacalus).

[^196]:    ${ }^{1} \mathrm{~m}$ heanma $M S . \quad{ }^{2}$ dhead $-M S . \quad{ }^{3} \ddagger \mathrm{~d}$ written ower the $\mathrm{g} M S$.

[^197]:    ${ }^{1}$ bfoghbhail $M S$.
    ${ }^{2}$ Read as' ttig ?
    ${ }^{3}$ Lug $-M S$.

[^198]:    1 Read gach ceard ?
    ${ }^{2}$ Read téd ?

[^199]:    osgl-MS. $\quad{ }^{2}$ san MS. $\quad{ }^{3}$ Read Thúathaibh or is ar Thúaith.
    ${ }^{4}$ saoirndeas $M S$.

[^200]:    ${ }^{1}$ See O'Grady Cat. p. 361.
    2 A.T. 1350 in a later hand.

[^201]:    3b. ar] air C , os F , ós L ; fionnmháoi F . c. chuinn] cuinn F , chruinn L . d. blaith F ; beannchruinn F , bhenncruinn C , bharrchruinn $\mathrm{L}, \mathrm{A}$.
    4. om. L. a. do tainmnighedh C ; eacht] úair F . b. tú C . c. fearr liom] raaith linn other MSS; hainmneaghadh $\mathrm{F}, \mathrm{A}$. d. a silim bairrleabhair bhláthcháomh F .
    5. om. L. a. cuinn F. b. teghdhais C , theaghais F , theghduise A. c. duaim C, dfuaim F, dhúaim A. d. da thruaill criadh C , dha th. criadh F ; criadh A.
    6. F, A invert 6 and 7. In L after 2. a. ville iná] uille (alt. later to óille) na F , uille no A ; cruachuin L , cruachain C , cruacha A ; cuinn F . b. an múr so $\mathrm{F}, \mathrm{L}, \mathrm{A}$; úmhuill F , ubhaill $\mathrm{C}, \mathrm{L}$. c. le múr $\mathrm{F}, \mathrm{A}$, ré dún C . d. dún $\mathrm{F}, \mathrm{A}, \mathrm{L}$, múr C .
    7. om. L. In C follows 8. a. temhra A . b. mic F . c. sidhgreagaidh F , sídhgreadhuidh C , sithgread- A ; ṡailg- A. d. bf́infledhaidh C , bfinfleghoidh A , bfínnfleasgaidh F ; mbláith mb, C, F ; mbuabhaillghloin A.

[^202]:    21 a. i om. L; chruachna $F$, chruachan $L$; tsoir $F$. b. ttocht $F$, $L$, ttecht $C$; féaraidh F , feroigh $\mathrm{L}, \mathrm{C}$. c. bfuil F , fuil L ; tsíar F , toir vel thíar C ; taibhsi F . d. dochíam $\mathrm{C}, \mathrm{L}$, adchiam F ; tsoir F ; tủairimsi C , túaraimsi $\mathrm{F}, \mathrm{L}$.

    22 a. thoir C , L, thsíar F (sic $\operatorname{leg}$.) ; thigh $L$, tigh C , thoigh F ; cruachna $\mathrm{F}, \mathrm{L}$. b. bheithe F , L, beithe C ; úrlúachsa F , bogluachra $L$. c. ts̉iar ina tsoir F ; ina] na $C$. $d$. chrannghoile $L$, crannghoile $F$.

[^203]:    23 a. tréigen $C$, $L$, treigadh $F$; múir $F$, mhúr $C$; chruachna $L$, crúachna $F$; fraoich $F$, L. b. nemhghuth $L$, ní guth $C$, ga dulc $F$; finnmháoith $C$, fionnmháoi $F$, ghégmhaoith L. c. eanoigh F , enuigh $\mathrm{C}, \mathrm{L}$. d. innbhearaibh F , innbheruibh L, inbhearaibh C.
    $24 a$. a nucht uisge a nucht feadha $\mathrm{F}, \mathrm{C}$, anucht uisge is $\dot{\mathrm{f}}$ edba L. b. na] om. $L, C$; foirgnedha $C$, foirgneamha $F$, fuirgnemha $L$. c. tá $C, L$, ata $F$; chathair $F, L$; ag cenn $L$, a ccionn $C$, os cionn $F$; bhredh L, C, bregh F. d. do aithin $C$, do athain $F$, $L$; fuirgnemh $L$, foirgned $h C$, foirgneamha $F$.

    25 a. da C. b. fiodhbhadh F , fiodhbhuidh L ; foirgneamhaibh F , fuirgnedhuibh L. $\quad$. gach bládh $\mathrm{F}, \mathrm{L}$, a mbladh C ; da uncertain in $M S$, dá bhuadhuibh L , da buadhaibh F , da mbuannaibh C .
    $26 a$. iongnaidh F , iongnadh $\mathrm{C}, \mathrm{L}$. b. chathruigh L , chathraigh C , chathair F ; mháonmhuighe C , mháonmhuigh F , maonmhoighe L . c. an táongha $\mathrm{F}, \mathrm{C}, \mathrm{L}$ (sic leg.). d. 7 i L ; condocht F , chonnocht L .

    26 A . Only in F and L. In L follorus 26 B. a. saorfaidh L. b. dioghuinn dúin $L$. c. di as ionmhuidhe is í as ferr $L$. d. ionghuire $L$.

[^204]:    28 a. ciorcaill F , cerchall L , cercaill C ; clar̄ duinn C . c. sní L ; fuil C , bfuil $F$, fuil $L$; sa] san $L$; chercoll $C$, chearcholl $F$, ccerchall $L$; chláir $L$. d. leatrom F ; clethramh $\mathrm{F}, \mathrm{C}$, clethráimh L .

    29 a atáid L ; meanmnach F , mhenmnach L . b. um ua L , im úa F , dúa C . c. sleaghaibh F , slesuibh L; seól C, L, seóil F. d. dfearaibh F.

    30 b. firminnti C , firmamint F . c. dá niadhthar] da ndúntar F , dá niathar L , nach dúinter C ; air F , fledh C . d. budh] as $\mathrm{F}, \mathrm{L}, \mathrm{C}$; ṡoillsi L (recte) ; ó C , L , le F ; théduibh C .

    3ı a. ré C , re L , le F ; táobh F ; thighe F , tighe C , L. b. chláruigh L , chlar- C , cáolaidh F ; dioghuinn F , ndioguinn C , L . c. as] is F ; iontsamhruidh C , ionnṡamhruigh L , ionsamhlaidh F ; thúaigh $\mathrm{F}, \mathrm{L}$, ath $\angle \mathrm{C}$; tegh L . d. re fiodhadhbaidh F , ó fiodharghoimh L , ré fiogharghoim C (sic leg.) ; fúair L , fuair C , bfuar F ; fúighlech C, bfaoilleach F (sic leg.), finfledh L. Was a rhyme teagh: bfaoilleadh intended?

[^205]:    32 a. togbhaid F, togbhuid L; laoch L; codhuil] codhail C, codail F. b. tighe $\mathrm{C}, \mathrm{L}$, toighe F ; úi concubhair F . c. realtannaidh F , réultonnaigh C , reltannaigh L . d. chreachtlannaibh F , creuchtonnuibh C ; gcủaluann $M S$, cualann F , L (?), ccúalann C.

    33 a. comhramha F , comrumhach C , comhranhach L . c. lór fionnfuaire C ; astoig C , astoigh $\mathrm{F}, \mathrm{L}$ (recte). d. goim gháoithe C , goimh ghaoithe L .

[^206]:    34 a. iona L, na F, C; na huighe F, L, C (sic leg.). b. baidhbhe F, báidhbhe C ; cáonraidhe F , caonruidhe C , chalruighe L . c. téd F ; fleachadh F , flechadh C , lethadh L ; dhi F, L. d. dodheachd F, dorachadh C, dorechadh L.

    34 A. F, C, L. The text of F is printed. a. fud C, fud L (recte). b. techta C, L; ethach nallmardha L. c. re gialluibh C ; re L; ghalluibh L. d. san] sa C, L; rélannuigh L .

    35 a. Áodh C; chuirr F, L. b. ac macraidh súairc sill n. F, ag macruidh suairc ṡol nuachuinn $L$; maicne] fine $C$. $c$. tí a ngrúaidh ar ngabhail dhatha $F$, tí a gruaidh ag gabhail dhatha C , tighe an gruaidh a gabháil etc. L. d. ó L, tre F, lé h. C ; fuair fionnbhracha $C$, bfuair bfionnbracha $F$, fuair fíonbhratha $L$.
    36. om. F, L. a. é so C. b. loighes C.

    37 a. do haitheóntaoi C , L , do haitheaontáoi F . b. ar colamhnaibh F , ar colbhaibh na C , ar colbha na L . c. Flann] dall with flann written above C. d. dfáisdine $\mathrm{F}, \mathrm{L}$.
    38. om. L . In F the order is $37,39,40,38$, in $\mathrm{L} 37,39,41$. a aithnidh C , aithne F (and in $c$ ); neill F . b. flaith C , rí F ; slimger] possibly slinnger $M S$, slimgér C , slinnger F . c. banfáidh C , cabhain F . d. tre anáil ngáoth ngeintlidhe F .

[^207]:    49 a. más] mas F , madh C ; ghiall C , gíall F . b. dúa F , dú C ; uirghíall F . c. dobeir nert C , bú neart F ; is] agus F . d. ag t. C, do t. F.

    50 a. áodh om. L; bhreagh F , bhredh L . b. ar F , a C ; les L , lios $\mathrm{F}, \mathrm{C}$; ghaoidheal $L$, gaoidheal $F$, gáoidheal $C$. c. cách uair da chuir ceand a cceand $F$, cach uaidh dá ccur iona chenn $L$; gach uaim do chur ceann a cceann $C$. d. ar uaim néirenn $L$, do fuaim e. $F$, um uaim e. C.
    51. om. F, L. a. úi] om. C. b. ag finnchliaigh C. c. osgardha C. d. mná rosgmanla C .
    52. om. F, L. The translation follows C , which reads:

    Bruidhen réidh rioghna Deala soillsi ináid na soillsedha síol ríoghradh fa bróin bhúabhall a siodhbhrugh óir Fionngualann.

[^208]:    ${ }^{1}$ Bishop Whitehead, Bull. Madras Museum, 1907, v. 3, 123.
    ${ }^{2}$ Gazetteer of the South Arcot district, 1906, I. 392.

[^209]:    ${ }^{1}$ Kivers, The Todas, 1906, 414.
    ${ }^{2}$ L. K. Anantha Krishna lyer, The Cochin Tribes and Castes, 1909, 1. ro8.

[^210]:    ${ }^{1}$ Anantha Krishna Iyer, op. cit. 1. $9^{8-9 .}$
    ${ }^{2}$ Ibid. 1. 146.

[^211]:    1 A hōtri is one who presides at the time of sacrifices.
    ${ }^{2}$ Fawcett, Bull. Madras Museum, 1900, 11. 1, 64.

[^212]:    ${ }^{1}$ Anantha Krishna 1yer, op. cit. 1. 104-5.
    ${ }^{2}$ Gazetteer of the Bellary district, 1904, 1. 75.

[^213]:    ${ }^{1}$ Anantha Krishna Iyer, op. cit. I. 296.
    ${ }^{2}$ Ibid. 1. 108.

[^214]:    ${ }^{1}$ Fawcett, Bull. Madras Museum, 1901, 1iI. 3, 250.
    ${ }^{2}$ Gazetteer of Malabar, 1908, I. 166.

[^215]:    1 Anantha Krishna lyer, op. cit. 1. 121.

[^216]:    ${ }^{1}$ A. 11. 26.
    ${ }^{2}$ Q. vi. ch. 23.
    ${ }^{3}$ B. p. 28.

[^217]:    ${ }^{1}$ G. p. 618.
    ${ }^{2}$ H. in. p. 606.
    ${ }^{3}$ H. in. p. 607.
    ${ }^{4}$ K. pp. 54-56.
    ${ }^{5}$ L. p. $5^{8 .}$

[^218]:    ${ }^{1}$ M. pp. $187-8$.
    ${ }^{2}$ See M. p. 172.
    ${ }^{3}$ D. p. 68.

[^219]:    ${ }^{1}$ D. 73 .
    ${ }^{2}$ N. xvili. 106.

[^220]:    ${ }^{1}$ O. pp. 16-17.
    ${ }^{2}$ P. 20.
    ${ }^{3}$ H. I. p. 472.

[^221]:    ${ }^{1}$ H. . . p. 453.
    ${ }^{2}$ L. P. 15.

[^222]:    ${ }^{1}$ H. II. p. 499.
    ${ }^{2}$ H. 11. p. 498.

[^223]:    ${ }^{1}$ O. p. 16.

[^224]:    ${ }_{1}$ The effect of the more historical study in the oriental field is seen most significantly in the work of William Robertson Smith (Religion of the Semites); but one may also note Father Lagrange's admirable Etudes sur les Religions Sémitiques (1905), and the newer tendencies in the German 'pan-Babylonian' and 'mythical' schools (see e.g. A. Jeremias, The Old Test. in the Light of the Ancient East, 19:1). Reference may also be made to the recent protest of the Egyptologist G. Foucart (Histoire des Religions et Mithode Comparative, 19:2).

[^225]:    ${ }^{1}$ 'The great masterpieces of Greek literature were all familiar to the scholars of the sixteenth century, and yet some of the most serious blots on the Authorised Version of the New Testament are due to the translators' ignorance of some quite elementary principles of Greek syntax’ (S. R. Driver, The Higher Criticism, 1905, p. 19).

[^226]:    ${ }^{1}$ See, for example, Spencer and Gillen, Native Tribes of Central Australia, i899, pp. 14 seq.; Northern Tribes of Central Australia, 1904, pp. 26 seq.

[^227]:    ${ }^{1}$ A belief in fairies is one in beings of a supernatural order, not recognised however by the existing religion; and to suppose that a man's soul appears in the night-moth (or the like) is to believe that there is something that can be called a soul, and that it survives death. An orthodox writer (W. St Clair Tisdall, D.D.) justly remarks that a man who 'cherishes a "lucky sixpence" is nevertheless a religious man in a way' (Christianity and other Faiths, 1912, p. 16). Indeed, it is not difficult to show how commonly the 'survival' has a twofold aspect, one associating it with its current and modern context, the other with a context out of touch with the present, and often older, cruder and unsystematised

[^228]:    1 May one contrast the comprehensive, somewhat grandiose, and relatively unsuccessful work of Herbert Spencer with the more specialistic but more successful influence of Darwin? The former would have provided all with an entire body of thought, the latter stimulated thought in every department.

[^229]:    ${ }^{1}$ Strictly speaking, every alleged 'survival' should be shown to have no functionno useful function, let us say-and since the notion of a survival is suggested by the vestigial remnants in the body, it is proper to point out that the belief that certain organs of the body are useless or functionless has sometimes proved in the past to rest upon imperfect observation; so E. S. Goodrich, The Evolution of Living Organisms (1912), pp. 68, 78 ; cf. also A. Sedgwick, Ency. Brit., art. 'Embryology,' vol. ix. p. 323 , col. I (on the relation between the retention of an organ from a lower development and its function).

[^230]:    1 Systematised religion (or theology) seems to be without that childlike nalveté and frankness which we find in popular religion and, equally, among some types of mystics. See the present writer, Actes du IVe Congrès International d'Histoire des Religions (Leiden, 1913), p. 100.
    ${ }_{2}$ A general reference may be made to S. 1. Curtiss, Primitive Semitic Religion To-day (1902); J. P. Peters, Early Hebrezu Story (1904); H. Gressmann, Palästinas Erdgeruch in der israel. Rel. ( 1909 ); Sir W. M. Ramsay, 'The Permanence of Religion at Holy Places in the East,' The Expositor, Nov. 1906, pp. 454-475; and the present writer, Rel. of Ancient Palestine ( 1908 ), pp. 21 seqq., 50, 59, 61, 67 seq.
    ${ }^{3}$ Similarly, Mr A. J. B. Wace has recorded the actual rise of a cult of Eikons at Koroni in Messenia; the features are those elsewhere found in old-established cults, although, historically, the cult itself is quite modern (Liverpool University: Annals of Archaeology and Anthropology, 11. 1910, pp. 22 seqq.).

    4 The fact that certain characteristic features of the Baal-cult do not prevaile.g. cercmonial licentiousness-is an interesting illustration of the risk attending promiscuous comparisons; we could not have 'reconstructed' the Baal-cult from the

[^231]:    weli-cult, or vice versa. Further, should any example be found of the old abominations against which the prophets of Israel inveighed, these will not be 'survivals,' handed down over twenty and more centuries, rather will they be due to the psychological and other factors that account for their origin in the first instance.

[^232]:    ' Proceeding on these lines one might note the recrudescence of 'superstition' at any period when there is a deeline in the national or systematised religion.

[^233]:    ${ }_{1}$ For example, a critical study of the Old Testament suggests that there was an earlier culture of a particular stamp, rich in myth and legend, and that of this we have fragments often rationalised, and often with new context, meaning and value.
    ${ }_{2}$ Apropos of the above note it may be added that the serious complexity of some of the problems of the Old Testament appears - to me at least-to be due to the downfall of an old culture and the inauguration and rise of a new series of conditions.

[^234]:    ${ }^{1}$ W. Wright, Comparative Grammar of the Semitic Languages, pp. 20 seq., 178.
    ${ }^{2}$ Classical Arabic, for example, is much too elaborate and artificial to be treated as identical with $A$.
    ${ }^{3}$ How easily one can misinterpret the significance of 'primitive' features in

[^235]:    institutions is interestingly shown by the late F. W. Maitland in 'The Survival of Archaic Communities' (Law Quart. Rev., 1893), reprinted in the Collected Papers (ed. H. A. L. Fisher, Cambridge, 1911), II. pp. $313-365$; see especially pp. 333 sqq., $33^{8,} 353$ seq., 363.

    1 Some of the ordinary dangers that attend the application of biological concepts and methods to the study of the phenomena of social communities are well pointed out by Irving King, The Development of Religion: A Study in Anthropology and Social Psychology (1910), pp. 207 sqq.

[^236]:    ${ }^{1}$ Prof. J. H. Leuba, in A Psychological Study of Religion (New York, 1912), seems to me to correlate too prematurely the characteristics of child and of rudimentary thought. On the other hand, the theory of the priority of Magic is hardly in harmony with the development of the child-mind, and for this reason, at all events, has serious initial difficulties; see further below, pp. 399 seq.
    ${ }^{2}$ See Dr J. G. Frazer, Totemism and Exogamy (1910), I. pp. 93 sqq., 342 sqq., Iv. p. in i; also The Betief in Immortality (1913), 1. pp. 88 sqq. In these pages 1 retain the word 'totem' in the popular sense of the object of the cult, and not the group that share it.
    ${ }^{3}$ Sce, for some of the evidence, Frazer, 'Jot. and Exog., 1. pp. ${ }^{1} 4^{8}{ }^{1} 153$.

[^237]:    1 See Principal F. B. Jevons, The Idea of God in Early Religions (ı910), pp. 59, 87.
    2 The evidence, first published by Messrs Spencer and Gillen (above, p. 38 I n. i), is conveniently summarised by Dr Frazer (op. cit. i. pp. ıog sqq., 230 sqq.), who observes : 'the custom seems to be a formal acknowledgment by the rest of the tribe that the totemic animal or plant properly belongs to the men of the totem, though these men have almost abnegated in favour of their fellows the right to eat the particular animal or plant' (p. 231).

[^238]:    1 See B. Malinowski in Festskrift to Eduard Westermarck (Helsingfors, 1912), pp. 8 I sqq., especially pp. $97,100,105,107$ seq. He remarks also: 'speaking more generally, it may be asserted that without the study of religious and magic influences any evolutionary scheme of economics must be incomplete.'

[^239]:    1 One may compare the relationship between (a) the child and the doll (or rather the teddy-bear), and $(b)$ the mother and the babe. From the psychological point of view it is important to distinguish between the nucleus of feelings, thoughts, etc., and the object of them ; cf. p. 387 above, on the evolution of local cults.

    2 In this transition, instead of the group acting as a whole we may find the most prominent part taken by a representative, a priest, or a king. It is not necessarily indicative of totemism when, e.g., the Arabs of Sinai, according to Herodotus, adopted

[^240]:    a peculiar tonsure to copy their god Orotal-Dionysus (i11. 8). The transition may rather be called sociological or political, and we find in Egypt (at an earlier date, but on a more complex social level) that only the kings, princes or nobles have certain adornments in imitation of a national deity. See Ency. Brit. vol. vir. pp. 230 seq., art. 'Costume.'

    1 Hutton Webster, Primitive Secret Societies (1908), pp. Ior seq. In Old Calabar when a man passes the sacred objects of Egbo he walks as one lame (p. 116), and in the annual death-dance at Pulu in the Torres Straits masked performers imitate the characteristic gait and actions of the deceased tribesmen (p. 162).

    2 'The Gonds, a hill tribe of Hiudustan, dance... with a shuffing step...the Kukis of Assam have...an awkward hop with the knees very much bent...the Andamans hop on one foot...' (Ency. Brit. vol. vir. p. 795).

[^241]:    ${ }^{1}$ This correlation naturally recalls Robertson Smith's brilliant theory of the sacramental comınunion in totemisı.
    ${ }^{2}$ Some of the remarkable peculiarities of native vocabulary are perfectly utilitarian, and appear strange merely because our mode and needs of life happen to differ from those of the native. See A. M. Hocart, "The "Psychological" Interpretation of Language,' British Journal of Psychology, v. (1912), pp. 272 seq.

[^242]:    1 Webster, op. cit. pp. $164,172,177$. Elsewhere we may find military reviews taking the place of religious gatherings (see H. M. Chadwick, The Heroic Age, pp. 368 seq.).
    ${ }^{2}$ Strictly speaking the evolution of an environment (e.g. Central Australia, Great Britain, Japan) should be distinguished from that of the world of thought ; see above, p. 379.
    ${ }^{3}$ It may be objected that this involves the problem of instinct and intelligence, because sooner or later we arrive at examples (e.g. the young child or babe) where the

[^243]:    state of consciousness must be very rudimentary and there is no preliminary experience. If so, it is well to recognise that upon this problem depends any treatment of magic and religion, and that upon the latter depends a problem which cannot be solved simply by attention to animals or to the results of ingenious experiment. It is not improbable that the comparative study of religious and other intuitive ideas will simplify the problem of instinct. Sec also below, p. 402 n. I.

    1 As for example, when it is popularly supposed that the inculcation of science would in itself implant scientific methods. On this analogy, comparative grammar would be doubly useful, as likely to inculcate rational principles of comparison.

[^244]:    ${ }^{1}$ This is partly inevitable because the very sympathy that makes for understanding tends to inhibit the exercise of criticism. Here, to be sure, everyone has to find his own attitude.

[^245]:    ${ }^{1}$ If it is supposed that primitive magical practices are 'instinctive' activities and that ritual is older than belief or dogma, there is still the question of the meaning present in consciousness on the occasion of any instinctive action. See the discussion in the British Journal of Psychology, ill.pp. 209-270 (Dr C. S. Myers and others), and Myers' restatement in his review of Prof. Lloyd Morgan's Instinct and Experience (in Mind, 1913 , pp. 269-275).
    ${ }_{2}$ This is certainly the case with the numerous enquiries in the field of Old Testament

[^246]:    research; both here and elsewhere the 'comparative method' needs to be used with attention to the dynamic aspects of thought.

[^247]:    1 On this view, totemism may be regarded as a specifically pre-anthropomorphic system of belief and practice. It is noteworthy that certain areas, however uncivilised, manifest no clear traces of totemism. May this not be due to the influence of an earlier, though now lost, culture? In like manner, medieval and modern Palestine, though in many respects inferior to the earlier conditions, has quite shaken off some of the earlier characteristic features; see above, p. 386 n. 4.
    ${ }^{2}$ Greece and Babylon (1911), pp. 13 seq., 54 sqq.
    : So, if 1 interpret her aright, Miss Jane Harrison in her Themis (1912).

[^248]:    ${ }^{1}$ In oriental lands, for example, it will be disputed whether a man is inspired or mad-the exhibition is non-normal, but whether it be extraordinarily good or otherwise has been open to question. Modern political life, too, forces us to realise the difference between all that, as we say, appeals to the heart or to the feelings or to human nature, and its value when viewed in the critical light of the evolution of ethical thought.
    ${ }^{2}$ Cf. p. 384 n .1 above on the relation between the one and the many.

[^249]:    ${ }^{1}$ M. M. Pattison Muir, Mind, Jan. 1913, pp. $4^{8}$-61.
    ${ }^{2}$ From Religion to Philosophy (1912); cf. e.g. pp. vii seq. 'the outward difference [between religion and philosophy] only disguises an inward and substantial affinity between these two successive products of the same consciousness' ; cf. also p. xi, foot, on the 'metaphysical' and the 'supernatural.'
    ${ }^{3}$ It is often forgotten that the mental equipment which controls the interpretation of difficult, subtle and crucial phenomena goes back to the time when a man had not yet become an 'expert' in his special field. The scientist who happens to be-let us say-a 'determinist' sometimes fancies that he is so just because he is a scientist-and if so what of those scientists who are not 'determinists'? In like manner, the very conspicuous differences between the 'higher critic' of the Bible and his 'conservative' opponent depend, not upon knowledge alone, or, as often alleged, upon acquaintance with the East or with archaeology, but upon factors more temperamental, constitutional and 'structural' than intellectual. It is a common trait to seek a rational basis for ail our intuitions and convictions, and this instinctive tendency is highly significant for the true relationship between intuition and intellect.

[^250]:    ${ }^{1}$ The necessity of finding a better and more fruitful method of 'thinking of thought'-if the phrase be allowed-is obvious if we consider the frequently crude

[^251]:    ${ }^{1}$ E.g. class and caste-divisions depend essentially upon ideas; and the "remote god" of any area is so because the ideas entertained of him sever him from ordinary life.

[^252]:    ${ }^{1}$ The age of abundant material is not necessarily the one that profits by it ; note e.g. the great store of material in the libraries of Assyria in the seventh cent. B.c. when the land was on the point of downfall.

[^253]:    ${ }^{1}$ Rev. J. Skinner, D.D., A Critical and Exegetical Commentary on Genesis (Edinburgh, 1910), p. 53.
    ${ }^{2}$ The Belief in Immortality and the Worship of the Dead, 1. 69 sqq.

[^254]:    ${ }^{1}$ P. A. Kleintitschen, Die Küstenberwohner der Gazellehalbinsel (Hiltrup bei Münster, preface dated 1906), p. 334.
    ${ }^{2}$ A. Landes, 'Contes et Légendes Annanites,' Cochinchine Franfaise, Excursions et Reconnaissances, No. 25 (Saigon, 1886), pp. 108 sq.

[^255]:    ${ }^{1}$ Otto Meyer, 'Mythen und Erzählungen von der Insel Vuatom (Bismarck-Archipel, Sudsee),' Anthropos, v. (1910), p. 724.
    ${ }^{2}$ R. Schomburgk, Reisen in Britisch-Guiana (Leipsic, 1847-1848), I1. 3 19.

[^256]:    ${ }^{1}$ Miss A. Werner, 'Two Galla Legends,' Man, x111. (1913), pp. 90 sq.
    ${ }^{2}$ Ch. Keysser, 'Aus dem Leben der Kaileute,' in K. Neuhauss's Deutsch NetrGuinea, 11. (Berlin, 191s), pp. 16ısq.

[^257]:    1 R. H. Codrington, D.D., The Melanesians (Oxford, 1891), p. 265 ; W. Gray, 'Some Notes on the Tannese,' Internationales Archiv für Ethnographie, Vn. (1894), p. 232. A like tale of the origin of death is told in the Shortlands Islands and again, with some variations, in the Admiralty Islands. See C. Ribbe, Zwei Jahre unter den Kannibalen der Salomo-Inseln (Dresden—Blasowitz, 1903 ), p. 148 ; Josef Meier, 'Mythen und Sagen der Admiralitảtsinsulaner,' Anthropos, 111. (1908), p. 193.

    2 George Brown, D.D., Melanesians and Polynesians (London, 1910), p. 365. In another version of this Samoan tale no mention is made of shellfish. See George Turner, LL.D., Samoa (London, 1884), pp. 8 sq.
    ${ }^{3}$ H. Sundermann, Die Insel Nias und die Mission daselbst (Barmen, 1905), p. 68.

[^258]:    ${ }^{1}$ A. Fehr, Der Niasser im Leben und Sterben (Barmen, 1901), p. 8.

[^259]:    ${ }^{1}$ Genesis, ii. 17, compare iii. 3.
    ${ }^{2}$ Genesis, iii. 22.

[^260]:    1 The notion that animals could renew their youth was not unknown to the Hebrews, as we see by the verse of the Psalm (ciii. 5), 'Thy youth is renewed like the eagle.' If the commentators are right in suggesting that in application to the eagle the idea is derived from observation of the annual renewal of the bird's feathers, the belief would be exactly parallel to the belief in the immortality of serpents, lizards, and other creatures which annually cast their skins. Strictly speaking the bird referred to ( ) (ֶׁ) is not the cagle but the great griffon-vulture, which abounds in Palestine. See H. 13. Tristram, The Natural History of the Bible, Ninth Edition (London, 1898), Pp. 172 sqq.

[^261]:    ${ }^{1}$ Genesis, iii. I 4 sq.
    ${ }^{2}$ Genesis, iii. 5 .

[^262]:    ${ }^{1}$ Cullen Gouldsbury and Hubert Sheane, The Great Plateau of Northern Rhodesia (London, 1911), pp. 80 sq .
    ${ }_{2}$ Rev. John H. Weeks, 'Stories and other Notes from the Upper Congo,' Folk-lore, xı1. (1901), p. 461 ; id., Among Congo Cannibals (London, 1913 ), p. 218.

[^263]:    ${ }^{1}$ Rev. H. Callaway, The Religious System of the Amãulu, Part I, Unkulunkulu (Springvale, Capetown, and London, 1868), pp. 1, 3 sq.; compare id., Part 11, Amatongo (Springvale, \&cc., 1869), p. ${ }_{1} 38$.

[^264]:    ${ }^{1}$ Rev. Lewis Grout, Zulu-land (Philadelphia, N.D.), pp. $1 \ddagger^{8} \mathrm{sq}$. Both Callaway's and Grout's versions of the story are translated verbally from the words of the Zulus; Callaway gives the Zulu text beside the translation. Compare Dudley Kidd, The Essential Kafir (London, 1904), pp. 76 sq.
    ${ }^{2}$ See The Belief in Immortality and the Worship of the Dead, I. 60 sq.
    ${ }^{3}$ Henri A. Junod, The Life of a South African Tribe (Neuchâtel, 1912-1913), 11. 328 s\%. Compare id., Les Ba-Ronga (Neuchâtel, 1898), pp. 401 sq. The particular species of lizard which according to the Thonga outran the chameleon and brought the message of death is a large animal with a blue head.

[^265]:    1 W. A. Elmslie, Among the Wild Ngoni (Edinburgh and London, 1899), p. 70.

[^266]:    ${ }^{1}$ For evidence see my note on Pausanias, 11. 10. 3 (vol. 1נI. pp. 65 sq.).
    2 Numbers, xxi. 6-9.
    3 For some examples see Adonis, Altis, Osiris, Second Edition, pp. 73 sqq.
    4 Taboo and the l'erils of the Sonl, pp. 29 note ${ }^{1}, 5 \mathrm{r}$ sq.

[^267]:    ${ }^{1}$ They probably found the descendants of palaeolithic man living on the chase, and these they so completely exterminated that they have left no mark on the ethnology of Britain. The evidence is not yet so clear as to allow a definite decision.

[^268]:    ${ }^{1}$ Rice Holmes (Ancient Britain and the Invasion of Julius Caesar, pp. 110, 408) takes the view that the Broad-heads were in Britain as on the continent in the neolithic age on insufficient proof. The neolithic age of the round barrows in which they are buried, without metal in Orkney and Scotland, but with, in some cases, flint knives and drinking cups or beakers found elsewhere with bronze daggers and razors, is based on dangerous negative evidence. And the statement that the Broad-heads who introduced beakers 'brought no bronze with them' is refuted by the recent great work of Abercrombie, who refers them to the Early Bronze Age. Abercrombie, A Study of the Bronze Age Pottery of Great Britain and Ireland, 4to, 1912, vol. 1. c. 1, 2, 4.

[^269]:    ${ }^{1}$ Archaeol. Journ. Lxi. pp. 309-319. Victorian History, Somerset, Early Man, ch. 11. par. 3, 4, 5. Wales, Cambrian Archaeol. Assoc. 1912, p. 92.

[^270]:    ${ }^{1}$ In man the anterior fibres of the temporal muscle are supplied by the same branch which supplies the external pterygoid muscle, and the posterior fibres by the same branch which supplies the masseter muscle.

[^271]:    1 The hypoglossal nerve is of course in series with the cervical spinal nerves.

[^272]:    ${ }^{1}$ I owe this suggestion to my friend Mr H. S. Souttar, C.M., F.R.C.S., of the London Hospital.

[^273]:    1 This sense of the word must not be confused with the same word commonly used to denote Adam's first wife Lilith, so called because she was created to become his 'companion.' For this warning I am indebted to my friend Mr G. D. Hornblower, whom I take this opportunity of thanking for much assistance in working out the subject-matter of this paper.
    ${ }_{2}$ There is an amusing if entirely unorthodox addition to, or variant of, this belief. Some say that when a man is born forty ginn are born with him. These are tempters, but each year one dies so that by the time he is forty he should be reconciled to divine things, and leave the wickedness of this world. A woman on the other hand is born with only one tempter, but a new one is added every year until the age of forty, when she reaches her maximum of wickedness.

[^274]:    ${ }^{1}$ Bara was founded by Danagla. Cf. H. A. MacMichael, Tribes of Northern and Central Kordofan, p. 15, where writing of the end of the 18th century he says 'It was at this time too that Bára, built originally by Danagla, was beautified with trees and gardens.'

[^275]:    1 'An Attic vase now in Bologna represents the god Dionysus on the way to his ship. This vessel is furnished with wheels; and, as a matter of fact, we learn from the Greek writers that a ship of this kind, dedicated to Dionysus, was driven through the streets of Athens....' C. Rademacher, Art. 'Carnival,' in Hastings' Encyclopaedia of Religion and Ethics, Vol. 111. p. 226 .

[^276]:    ${ }^{1}$ The slight importance attaching to the early days of the mulid is shown by the fact that one of Mr Brunton's informants, a Luxor man, said that the festival of Abu'l Heggag lasted only nine days.

[^277]:    ${ }^{1}$ There is a boat festival at Keneh where Sidi Abdul Rahim, one of the three companion sheykhs, is buried, and outside his tomb is a piece of stone said to be a portion of the boat.
    ${ }^{2}$ I may refer to the representations of boat shrines on sledges on the walls of the temple of Seti 1 at Abydos, and especially to the description engraved on a sandstone tablet, found by Champollion, of the voyage of the god Khonsu to Bekhten: 'Then King Ramses gave command, and Khonsu...was placed in the Great Boat ; and around the Great Boat were five small boats, with chariots and horses, numerous and splendid, on the right hand and on the left' (M. A. Murray, Ancient Egyptian Legends, p. 16). A boat shrine on wheels which may well resemble that described in the legend is figured by Rawlinson (Herodotus, 11. p. 108, f. n.), while in Ghizeh Museum there is a golden model of a boat on wheels bearing the name of Kames. the son of Queen Aahotep of the seventcenth Dynasty.

[^278]:    ${ }^{1}$ For a summary of early Mohammedan influence in Ceylon, see Tennent's Ceylon, 1859, Vol. I. pp. 579-591. Another example of an 'Arab' custom adopted in the far East is the 'circumcision' of girls, practised by Malays, often reduced to the drawing of a few drops of blood from the clitoris. In certain instances the rite may be repeated for its purifying virtue.

[^279]:    ${ }^{1}$ F. Chabas, Le Calendrier des Jours Fastes et Néfastes de L'Année Égyptienne.
    2 I owe this translation to the courtesy of Dr A. H. Gardiner.
    ${ }^{3} \mathrm{Mr}$ Hornblower points out that the leila el khusumat, as the nights of this unlucky period are called, extend from the 1st to the 6th of the Coptic month of Amshir (February-March). These are not, however, the true intercalary days of the Coptic year called eyyam el nesi, which occur in the second week in September at the end of the Coptic year. Nevertheless the Egyptians still observe the days of the guma'a kelil khusumat, and know them as kharig el sena, 'the days outside the year,' although they have no idea why they are so called.

[^280]:    ${ }^{1}$ Egyptian Calendar for the year 1295 A.H. (1878 A.D.) corresponding with the years 1594-1595 of the Koptic Era, Alexandria, 1877 . This, with its terminal notes, is a mine of folk-lore. The author, Roland Mitchell, has concealed his identity on the title-page by transliterating his name into hieroglyphs. It should be noted that this calendar does not correspond accurately with one by E. Tissot entitled Almanach pour l'année 1583 de l'Ėre Copte.

[^281]:    * Through the kindness of J. Bazley White, Esq., jun., I have been enabled to examine a human calvaria from Swanscombe near Galley Hill. The calvaria is accompanied by the lower jaw, part of the upper jaw and by the atlas and axis vertebrae. The interest of these specimens is extraordinarily great, for Mr Bazley White describes them as having been found 'about nine or ten feet down, in the alluvial gravel, on top of the chalk,' and as regards the surroundings, Mr Bazley White adds that 'as far as I can remember, the ground had not been excavated, or touched in fact.'

    The skull is of a modern type, but though slightly distorted, it is not comparable in this latter respect to the Galley Hill skull. The chief point of importance, to my mind, is that besides the Galley Hill skeleton, the Swanseombe skull and vertebrae should have been found so deep in the gravel. Like the Galley Hill bones, those from Swanscombe are much marked or scored by rootlets. They are very friable and almost completely devoid of gelatine, to judge by their extreme fragility.

    In addition to this record, I may add that Mr Suteliffe writes (in the Memoirs of the Manchester Philosophic Sociely, June 24, 1913, p. 16 of reprint) to the effect that bones of modern oxen (including a complete skeleton) have been found near Galley Hill at a depth of cight fect in a gravel-pit.

[^282]:    * $24 \frac{1}{2}$ feet below O.D.
    $\dagger$ A human skull from a cist-grave in Scotland has been sent to the Cambridge Museum and gives valuable evidence on this point. For the cist-grave skull, when first

[^283]:    ${ }^{1}$ The Pulse of Asia, London, 1909.
    ${ }^{2}$ The Wanderings of Peoples, Cambridge, 1911.

[^284]:    ${ }^{1}$ This statement is perhaps too sweeping. In many places we have evidence that small bodies of immigrants have been venerated because they were regarded as divine or as the ghosts of the dead, and the material culture may have formed only one factor in the production of this idea. Again, when the immigrants have been allowed to settle, any mental superiority they may have possessed cannot but have shown itself in many ways though even here it is the manifestation of this superiority in material concerns which is most likely to impress the rude imagination.

    2 See Fiji and the Fijians, Vol. 1., by Thomas Williams, London, 1858, p. 3.

[^285]:    1 Address, Section H, British Association, 1911; Report, p. 490, or Nature, 1911, 1.xxxvil, 356, and Folk-Lore, 1912, Xx111, 307.

[^286]:    ${ }^{1}$ Festskrift tillegnad Edvard Westermarck, Helsingfors, 1912, p. 109.

[^287]:    ${ }^{1}$ Rude Stone Monuments, London, 1872.

[^288]:    ${ }^{1}$ See Man, 1911, p. 176.
    ${ }^{2}$ The Ancient Egyptians, London and New York, 1911; Man, 1912, p. 173; and in the present volume.
    ${ }^{3}$ Maori and Polynesian, London, 1907.
    ${ }^{4}$ Man, 1912, p. 174 ; and Rough Stone Monuments, London and New York, 1912.
    ${ }^{5}$ The most cogent objection to the existence of a 'megalithic race' is not to be found in the present dissimilarity of physical character or of general culture in the places where the monuments are now found, but in the long intervals which elapsed between the appearance of these monuments in different places. If archaeologists are right in supposing that the megalithic monuments of Ireland were built a thousand years after those of the Mediterranean and those of Japan still another thousand years later, there can be no question of uniformity of race. No people settled on the way to

[^289]:    these extremities of the megalithic distribution could have preserved their racial purity. Such long intervals make possible some community of racial character among the carriers of the megalithic culture, but they exclude the idea that they can have been of one race.

[^290]:    ${ }^{1}$ I have been attacked for making this statement on a previous occasion, but it comes as a great surprise that anyone ignorant of this well-known fact should venture to discuss the problems of the Early Mediterranean.

[^291]:    ${ }^{1}$ It is not vital to my argument to insist upon the necessity of metal tools for this work: but as a matter of fact everyone who examines the chisel marks in the Old Kingdom subterranean chambers and the hundreds of copper-stained stones in the burial shafts must admit that it is a historical fact that copper chisels were used.

[^292]:    ${ }^{1}$ In Egypt it was found that the orientation of the graves of these early people was only a rough approximation, the direction of the Nile at the spot being often taken as the north-south line.

[^293]:    1 The italics are mine.

[^294]:    ${ }^{1}$ I have not entered into the evidence for this here, but should say that it was the facts of these racial movements that drew iny attention to the megalith-problem.

[^295]:    ${ }^{1}$ A type of rock-cut tomb resembling this one in plan also occurs in Sicily in the full Bronze Age (Second Siculan Period). The corridor leading from the vestibule into the rectangular tomb 'sometimes passed through an antechamber' (Peet, 7, p. 80). 'Occasionally we find an elaborate open-air court outside the façade of the tomb, built very much after the megalithic style.'

[^296]:    ${ }^{1}$ Procopius, De aedific. 1. 8, 9.

[^297]:    ${ }^{1}$ Malalas, Chron. iv. p. 78.

[^298]:    ${ }^{1}$ The information came in a Reuter telegram; 1 noted it in The Western Daily Mercury (Plymouth) for Ap. ı0, 1906. The despatch concludes as follows:
    'The road between Cercola and Ottaiano is destroyed. It is covered with burning mud. Refugees from the district of Ottaiano state that eight or ten houses and five churches have collapsed, among them being the Church of San Michele, which was rich in artistic treasures and was built on the site of the ancient Castor and Pollux Temple.'
    ${ }^{2}$ II. $30,3 \mathrm{I}$.
    3 Hesychius Milesius 4, 3. The goddess Semestra here mentioned was a nymph or ncreid, whose cult preceded the arrival of the Greek colonists: she belongs to an old nature worship.

[^299]:    ${ }^{1}$ Dion. Byzant. Anaplus, ed. Wescher, p. ıı, ä $\rho \chi \epsilon \tau a \iota \delta \grave{\epsilon} \tau \hat{\omega} \nu \pi о \tau а \mu \hat{\omega} \nu$ Kv́dopos
    
     rives $\delta \dot{\epsilon}$ є́ $\pi \iota \chi$ ஸ́ptov $\eta p \omega a$.
    ${ }_{2}$ Procopius, De aedif. 1. II.

[^300]:    ${ }^{1}$ Older, that is to say, from the standpoint of their appearance in Murray Island.

[^301]:    1 Cf. Reports of Cambridge Anthropological Expedition to Torres Straits, vol. iv.
    ${ }_{2}$ The sign + or - over a note indicates that the pitch is to be slightly raised or lowered.
    ${ }^{3}$ A cent is the hundredth part of our tempered semitone, -hence one-twelvehundredth part of the octave.
    R.

[^302]:    1 have one record of a closely similar song in which, however, six instead of five steps are used in descent to the lower octave (cf. Reports of the Cambridge Antbropological Expedition to Torres Straits, vol. iv. pp. 244, 247).

[^303]:    1 I am indebted to Prof. and Mrs C. G. Seligmann for the opportunity of studying the records of these songs ; they form not the least interesting of the many valuable results of the Seligmann expedition embodied in The Veddas (Cambridge University Press, 19 II).

[^304]:    1 The figures beneath the notes of this and the following songs express the pitch in vibrations per second.

[^305]:    1 There is good reason for believing that in most respects the Veddas are far from being a very primitive people, but just as in Ancient Greece music was ill-developed in comparison with the arts of sculpture and drama so the music of the Veddas may have retained its primitive character, despite the complexities of their social organisation.

[^306]:    ${ }^{1}$ It would be useful to keep the term 'tone-distance' (or 'distance') for those intervals which are thus formed, and to reserve the term 'interval' for those which have arisen through a feeling for consonance.

[^307]:    ${ }^{1}$ A fifth occurs in one song, but is impure and 'dead,'-that is to say, it is merely an interval between the end of one phrase and the beginning of the next.
    ${ }^{2}$ I use $\dot{C}$ and C to indicate the upper and lower notes of the octave.

[^308]:    ${ }^{1}$ Thus the tone-distance of (about) 185 cents seems to be a favourite unit, G-F, A-G, $\dot{\mathrm{D}}-\dot{\mathrm{C}}, \dot{\mathrm{E}}-\dot{\mathrm{D}}$, measuring respectively $186,187,178$ and 188 cents.

[^309]:    ${ }^{1}$ Cf. also the calibration of pan-pipes (E. von Hornbostel's article in 'T. KochGrünberg's Zquei Jahre unter den Indianern, Berlin, i910, vol. ii. pp. 378-391), where the third partial of one pipe is used as a means of tuning another, and the consequent interval of a fourth is subdivided into two approximately equal tone-distances.

[^310]:    1 The numbers (i-viii) will be repeated in the next few pages, when the corresponding factors are again referred to.
    ${ }^{2}$ Cf. F. Alt, Ueber Melodientaubheit und musikalisches Falschhören, Leipzig, 1906, pp. 14 ff .

[^311]:    ${ }^{1}$ Abraham, Sammelbd. d. internat. Musikgesellsch., 1901, vol. iii. p. 69.
    ${ }^{2}$ von Hornbostel, Ztsch. f. Ethnol., 191 1, pp. 60 Iff.
    ${ }^{3}$ Zur Grundlegung der Tonpsychologie, Leipzig, 1913.
    ${ }^{4}$ The middle c of the pianoforte is written $\mathrm{c}^{1}$. Successive octaves above it are written as $c^{2}, c^{3}, c^{4}$, etc. ; those below are written as $c^{0}, C_{0}, C_{1}$, etc.

[^312]:    1 The degree to which two simultaneous tones fuse with one another is in the order of their recognised consonance. Thus octave tones fuse more perfectly together than fifths, fifths than fourths, fourths than thirds or sixths.

[^313]:    ${ }^{1}$ Malay Magic, 1900, p. 485.

[^314]:    1 'De Hulpmiddelen der Zeevisscherij op Java en Madoera in gebruik,' Batavia, 1909, pp. 93,94 and pl. xvi.

[^315]:    ${ }^{1}$ H.M. 'Siboga' expedition, $1899-1900$. Introduction and description of the expedition, Leiden, 1902 , pp. 60, 61 .
    ${ }^{2}$ Reproduced in Frobenius' Völkerkunde, Hannover, 1902, p. 285, fig. 240.

[^316]:    ${ }^{1}$ Annual Report on British Nerv Guinea, 1897-99, p. 46, pls. I and Ir.

[^317]:    1 Papua, 19ı2, p. 1 if.
    ${ }^{2}$ Melanesians and Polynesians, 1910, p. 323.
    ${ }^{3}$ The Nerw Nerv Guinea, 19ı0, p. 313.

[^318]:    ${ }^{1}$ The Solomon Islands and their Natives, 1887, p. 151.

[^319]:    ${ }^{1}$ Man, 1912, p. [9], with figures.
    ${ }^{2}$ J. E.-Partington, Album of the Pacific Islands, i, pl. 197, fig. I.

[^320]:    ${ }^{1}$ Rev. R. H. Codrington, D.D., The Melanesians, 1891, p. 318 (Solomon Islands). Capt. W. T. Wawn, The South Sea Islanders, 1893, gives an illustration, apparently from memory, but no description, and it is not certain whether his figure relates to the Solomons or to the islands off S.E. New Guinea. Rev. A. Penny, Ten Years in Melanesia, p. 77 (Solomon Islands). Norman H. Hardy and E. W. Elkington, The Savage South Seas, 1907, p. 116 (Solomon 1slands). Rev. G. Brown, D.D., Melanesians and Polynesians, 1910, p. 323 (Solomon Islands).

[^321]:    1 The loom is also apparently known in parts of the Bismarck Archipelago, and seems also to have been in use in former days in the Banks Islands, but it does not appear to be known in the Solomon Islands.

[^322]:    ${ }_{1}$ The explanation of this and other technical terms will be found in the Appendix on Terminology.

[^323]:    ${ }^{1}$ The last is vouched for by W. Turner, Tour in the Levant, III. 512 : the other beliefs seem generally current.
    ${ }^{2}$ I.e. (Noнírцaтa) K $\omega \nu \sigma \tau a \nu \tau \iota \nu i ́ \tau a, ~ c f . ~ C o n s t a n t i n a t u s ~(s c . ~ s o l i d u s) ~ l i k e ~ M i c h a e l a t u s, ~$ Romanatus (ss. vv. in Ducange's Glossarium Lat. Med. et Inf.), all current coin-names in the XI. century.
    ${ }^{3}$ La Guilletière, Lacédémone ancienne et nouvelle (1676), p. 578. 'Médailles de Ste-Helène' are mentioned as curiosities by Monconys ( 1648 , Voyage, 1. 43 1), and as charms by Poullet (Rel. du Lervant, 1668, 11. 20).

[^324]:    ${ }^{1}$ Epilepsy. Cf. Poullet (l.c.), where this and migraine are cited as diseases against which 'medals of S. Helen' were worn.
    ${ }^{2}$ Good examples are shewn in the B.M. Catal. of Byzantine Coins, Pl. L. 12 (Basil I), LI. 9 (Leo VI and Constantine VIII). I have little doubt that the 'gold penny of S. Helcna' shewn to pilgrims at Rhodes in the xiv. century and the pieces generally known in mediaeval times as Santelene (Hill in Archaeologia, Lix. (1905), p. 13, note d) were coins of this class.

[^325]:    ${ }^{1}$ With regard to these may be noted a curious superstition to the effect that when the obv. and rev. dies are symmetrically placed (i.e. not reversed) the coin in question contains wood of the True Cross.
    ${ }^{2}$ A venetian sequin 'in which the figures on each side correspond, head to head and feet to feet (cf. above, note 1), is worn by Egyptians as a charm against ophthalmia' (Lane, Modern Egyptians, 5th ed., p. 256).

