

# The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the  
Extension of the Religious Parliament Idea

Founded by EDWARD C. HEGELER

---

VOL. XXXVI (No. 3)

MARCH, 1922

NO. 790

---

## CONTENTS:

	PAGE
<i>Frontispiece.</i> GUSTAVE FLAUBERT.	
<i>Gustave Flaubert.</i> LEWIS PIAGET SHANKS .....	129
<i>The Skeptic's Challenge.</i> (Continued). HENRY FRANK.....	146
<i>A Critical View of Progress.</i> F. S. MARVIN.....	159
<i>Religion and Philosophy in Ancient China.</i> (Concluded). HARDIN T. MC- CLELLAND .....	174
<i>The New Religion.</i> CURTIS W. REESE .....	188

---

## The Open Court Publishing Company

122 S. Michigan Ave.

Chicago, Illinois

Per copy, 20 cents (1 shilling). Yearly, \$2.00 (in the U.P.U., 9s. 6d.)

---

Entered as Second-Class Matter March 26, 1887, at the Post Office at Chicago, Ill., under Act of March 3, 1879. Copyright by The Open Court Publishing Company, 1922.



# The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the  
Extension of the Religious Parliament Idea

Founded by EDWARD C. HEGELER

---

VOL. XXXVI (No. 3)

MARCH, 1922

NO. 790

---

## CONTENTS:

	PAGE
<i>Frontispiece.</i> GUSTAVE FLAUBERT.	
<i>Gustave Flaubert.</i> LEWIS PIAGET SHANKS .....	129
<i>The Skeptic's Challenge.</i> (Continued). HENRY FRANK.....	146
<i>A Critical View of Progress.</i> F. S. MARVIN.....	159
<i>Religion and Philosophy in Ancient China.</i> (Concluded). HARDIN T. MC- CLELLAND .....	174
<i>The New Religion.</i> CURTIS W. REESE .....	188

---

## The Open Court Publishing Company

122 S. Michigan Ave.

Chicago, Illinois

Per copy, 20 cents (1 shilling). Yearly, \$2.00 (in the U.P.U., 9s. 6d.)

---

Entered as Second-Class Matter March 26, 1887, at the Post Office at Chicago, Ill., under Act of March 3, 1879. Copyright by The Open Court Publishing Company, 1922.

# Thoughtful People Should Read

J. M. Powis Smith's  
**The Religion of the Psalms**

The aim of this book is to bring out the significance of the Psalms as indicative of the religious and moral standards of later Judaism. No attempt is made to find in the Psalms spiritual nourishment for the life of today. The effort is rather to present their meaning as it lay in the minds of the authors and earliest readers. \$1.75, postpaid \$1.90.

Edward Scribner Ames'  
**The New Orthodoxy**

A plea for humanized faith. Those who are dissatisfied with the scholastic faith of protestantism will find here a most welcome statement of the new point of view in religion. \$1.50, postpaid \$1.65.

George Burman Foster's  
**The Function of Religion in Man's Struggle for Existence**

A study of the influence of religion in the development of modern civilization. \$1.00, postpaid \$1.15.

Angus S. Woodburne's  
**The Relation Between Religion and Science: A Biological Approach**

The author has shown that religion and science may exist side by side in cordial relationships where the specific functions of each are recognized. 75 cents, postpaid 85 cents.

Paul Shorey's  
**Plato and Religious Problems of Today**

An instructive discussion of (1) Plato and the Irreligion of Pseudo-Science; (2) Plato and Natural Theology; (3) Plato and Ethical Religion. To be published May 1. \$1.75, postpaid \$1.90.

*Purchase direct or through your dealer.*

---

---

THE UNIVERSITY OF CHICAGO PRESS

5832 Ellis Avenue

Chicago, Illinois





GUSTAVE FLAUBERT

*Frontispiece to The Open Court.*

# THE OPEN COURT

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and  
the Extension of the Religious Parliament Idea.

---

---

VOL. XXXVI (No. 3)

MARCH, 1922

NO. 790

---

---

Copyright by the Open Court Publishing Company, 1922.

---

---

## GUSTAVE FLAUBERT.

BY LEWIS PIAGET SHANKS.

THE centenary of Gustave Flaubert was worthily commemorated by his native city, Rouen. Time has changed the local viewpoint toward the prophet's fame which persisted even after the author's death in 1880. For although he died one of the unassailable glories of France, Norman thrift allowed his villa on the Seine, once the country-house of the monks of Saint Ouen, to be sold for a factory site; a huge chimney—ironic monument—now stands where *Flaubert* wrote *Madame Bovary* and *Salammbô*; a pillar of smoke replaces the gleam of the student's lamp which until dawn served to guide the belated fisherman to shore. Only the Louis XV pavilion on the river-bank is left, preserved through a national subscription by the piety of a second generation, to be made, some fifteen years ago, the "Musée Flaubert"; the little house where he lounged and smoked, musing perhaps on the Orient of his dreams, and which drew back his thoughts to his Normandy home from the far waters of the Nile, is become the shrine of a martyr to art, who left his mark upon the form of nearly all our contemporary novels.

Flaubert's birthplace has had a better fate than the manor at Croisset. We still possess the gloomy old Hôtel-Dieu of Rouen, where he passed his early years, a naïve, meditative child who would sit for hours with finger in mouth, rapt in reverie. His father, surgeon-in-chief of the hospital, was of Champenois stock, his mother Norman and herself the daughter of a physician who had married into a noble family. Here perhaps we touch the source of Flaubert's sensitive pride. But the Hippocratic stamp left only an analytic tendency; it was his brother, nine years older, who succeeded his father. In Gustave the genius of science was long to struggle with the spirit of dream, the Champenois exuberance to combat the melancholy, idealistic and obstinate Norman. Phy-

sically the latter element predominated; he looked like a young Viking.

It was this contrasted nature which made him love *Don Quirote*, read to him at nine, which lead him to plan stories based upon it, and plays which were acted on his father's billiard table. The first misspelled letter of his correspondence reveals the future writer, divided between imagination and analysis. "If you wish to join with me in writing", he proposes to a boy friend in 1830, "I will write comedies and you shall write your dreams, and as there is a lady who comes to our house and who always talks silly things, I will write them." But eager for self-expression as he was, little Gustave proved not otherwise precocious. He was nearly nine when he learned to read; his sister, three years younger, had to set the example. At school he did not lead his form, except in history and later in philosophy. Mathematics he never understood. He hated the fixed hours, the discipline; he was a born individualist. Boyishly, he boasts to a friend that he has not even tried to see the king, who visited Rouen in 1833. Of course this is a bit of borrowed Romantic liberalism; the Romantic tide has quite bowled him over. At thirteen he starts a novel in the style of Dumas, and bored by his chum's absence, writes: "If I didn't have in my head and at my pen-point a French queen of the fifteenth century, I should be completely disgusted with life and long since a bullet would have delivered me from this mad farce which is called life."

One smiles, for the contagion of romantic rhetoric is always humorous. But the disease itself was serious; French schools, naturally classical and then intent upon pleasing a reactionary bureaucracy, had forbidden their students to read *Werther*, *Byron Faust*, *et hoc genus omne*. They had created a new sin, and rebellious adolescence never failed to take a new sin seriously. Long after, the novelist wrote: "I know not what schoolboys' dreams are now, but ours were superbly extravagant. . . . Whilst enthusiastic souls longed for dramatic passions, with gondolas, black masks, and noble ladies swooning in post-chaises amid the Calabrian hills, a few heroes, more sombre, aspired to the tumult of the press or the tribune, the glory of conspirators. . . . But we were not merely lovers of the Middle Ages, of the Orient, of revolt, we were above all things lovers of art; tasks ended, literature would begin; we ruined our eyes reading novels in the dormitories, we carried daggers in our pockets like Antony, nay more, through dis-



gust with life, B—blew out his brains with a pistol, A—hanged himself with his cravat; little praise was ours, certainly; but what hatred of all platitudes! what soarings toward grandeur! what respect for the classics! how we admired Victor Hugo!"

So Flaubert wrote novels and dramas at school, beginning at fourteen his twenty year apprenticeship for the writing of *Madame Bovary*. There are three volumes of these posthumous *Oeuvres de Jeunesse*; the first two, composed before he was twenty, show strange beginnings for the future precursor of Naturalism. Characteristic titles are *Loys XI, Rage and Impotence, A Dream of Hell, The Dance of the Dead, Agonies, November*; and hardly a page falls below the lurid promise of the captions. With adolescence the influence of morbid Romanticism becomes more than a pose; it colors his whole view of life with a melancholy and a feeling of moral solitude which his favorite Rabelais is unable to conquer except in moments of purely youthful expansion. With them combined in 1836 a passion for a lady ten years his senior, which is recounted in the Wertheresque *Memoirs of a Madman*. This unspoken adoration saved him from the venal loves of youth, and served in the plot of the second *Sentimental Education*.

Indeed the germs of nearly all his works may be found in the letters of this period and the Juvenilia. The mystery play *Smarh* of 1839 is a sketch for the *Temptation of Saint Anthony*; the very first letter reveals the interest in human stupidity which produced *Bouvard and Pécuchet*; *Salammbô* expresses his Romantic longing for the Orient and his love of antiquity seen in the essay *Rome and the Caesars*; *Madam Bovary* crystallizes the disillusion left by all his youthful debauch of Romantic dreams: "I have laid waste my heart with a lot of factitious things."

One could hardly expect that such a boy would take kindly to the study of the law, which seemed to his family the most practical career for him. Worry over the matter affected his health; he was sent South with a friend of his father's, Dr. Cloquet. Two months were spent on this journey, which included the Pyrenees, Provence and Corsica, and which only intensified his desire for other lands. Back in Rouen he wrote: "A fig for Normandy and our fair France. Ah, how I should like to live in Spain, in Italy or even in Provence. . . . I think I was born elsewhere, for I have always had a sort of memory or instinct for balmy shores, for blue seas. I was born to be emperor of Cochin-China, to smoke pipes thirty

fathoms long, to have 6,000 wives, scimitars to chop off the heads of people whose faces I don't like . . . and I have nothing but huge insatiable desires, an atrocious emui and yawnings without end."

Paris itself failed to distract him; the law bored him profoundly, and the vulgar gaieties of the Latin Quarter drove him to his room, to console his exile by copious letters to his sister.

To a friend concerned over his approaching examinations he replies: "Do I long to be successful, I, to be a great man? a man known in a district, in three provinces, a thin man, a man with a weak digestion? . . . All that seems to me very dismal . . . and were it only to be singular, it is a good thing now to leave all that to the scum, who are forever pushing themselves. . . . As for us, let us stay at home, let us watch the public pass from the height of our balcony; and if from time to time we are over-bored, well, let us spit on their heads, and then calmly continue our talk, and watch the sun setting in the west."

The expected happened. Flaubert was absolutely confused before the examiners; he collapsed utterly; and when after vacation the time came to return for a second trial, he was seized with that hysterico-epileptic attack which was to confirm his solitary misanthropy by making him withdraw from life. To lie for months in forced inaction, humoring nerves which at the least sensation "tremble like violin-strings", to be denied all excitement, all stimulant, even his cherished pipe, to endure the violent bleeding, starving and purging then used as treatment, was enough to make a sensitive youth irritable and to darken his outlook upon a world he did not fit. His nerves were unequal to life in the market-place. A need of avoiding all feeling—or shall we say the reality of his pain?—seems to have bred a disgust for Romantic subjectivity which gave him a more objective and intellectual taste in reading. His favorite books are now Montaigne, Rabelais, Régnier and LeSage; he adores Voltaire and has read *Candide* twenty times; he re-reads Tacitus and plans to re-read Homer and Shakespeare. He is growing up; the third volume of his *Oeuvres de Jeunesse*, written from 1842 to 1845, is a new, if abortive, attempt to write an objective novel (the first *Sentimental Education*); and its hero Jules shows us by what discipline Flaubert overcame his life of romantic subjectivity.

His sister married in 1845, and as all the family accompanied the wedded pair on their honeymoon journey, Gustave saw Provence

again and with it something of North Italy. At Milan, regretting the blue Mediterranean and longing for the East, his relapse into lyricism convinced him of the danger in travel for the young writer: his present duty was "to rid himself of everything really intimate, original, individual . . . to shut himself up in art and count all else for naught, since pride replaces all." His decision is made, and "unregretful of riches or love of the flesh, he has said to practical life an irrevocable adieu." Back at Croisset, he finds a new peace in his settled future, a calm exempt from laughter or gloom. He is "mature", and like a good workman, can now pound away at his anvil without care of the weather, confident that the will which has helped him accomplish this change is going to carry him further. He has learned "one thing, that happiness for men of his stamp lies in *the Idea* and not elsewhere." And with this he is advancing toward realistic objectivity: "There are actions, voices, that I cannot get over, and inanities which almost make me reel."

But his exasperated sensitiveness was not long allowed this escape into things external. Hardly had the family moved to Croisset, just purchased, when his father died, and three months later his sister Caroline, after giving birth to a daughter. Flaubert's grief was terrible, and his reaction upon it characteristic. A born pessimist, he notes his early prevision that "life was like a sickly smell of cooking escaping from a ventilator. One has no need to have eaten to know that it will nauseate. . . . My last misfortunes have saddened me, but have not surprised me. Without taking anything from my feelings, I have analysed them like an artist. . . . It is said that religious people bear the troubles of this world better than ourselves, but the man who is convinced of the great harmony, who hopes for the annihilation of his body while his soul will return to sleep in the bosom of the great whole . . . that man is tortured no more."

It is not grief which has made him a literary Buddhist. It is his readings for the *Temptation of Saint Anthony*, begun in 1845. No less than Leconte de Lisle, Flaubert becomes infatuated with the Hindus, borrows books from Paris, quotes Sakya Mouni on the grief which comes from attaching oneself to others and the necessity of solitude. But at twenty-five he, too, would have been a saint had he been consistent. Buried in the history of religions, Greek, and Latin, striving to live in the antique world and "daily growing more devoted to the classics", he forgets that the death of his sister

and the marriage of his bosom-friend, LePoittevin, have left him undefended against the Cyprian queen. This young recluse was destined to love and to suffer, and it was Madame Louise Colet, met during one of the visits to Paris with which he broke the tedium of long stays at Croisset, who inherited the vacant place he had already begun to feel in his heart.

They met at Pradier's studio—a sort of artistic and literary salon, frequented by Flaubert since his student days. Madame Colet was a literary lady some ten years older than he, but still very beautiful; she knew every celebrity in Bohemian Paris; she was in fact a Romantic Muse. Within ten days she and Flaubert called each other thee and thou; repeatedly she sent him orange-blossoms in her letters, but he had the resolution to keep her a Romantic Muse, refusing to desert his mother still sunk in her double grief, in order to live with his lady in Paris. His work too held him at Croisset; indeed, he is soon writing her mostly at week-ends, "keeping her in the shop-parlor of his heart until Sundays come." Interrupted by only occasional visits to Paris and by his travels, their correspondence lasted for eight years; it is a curious mixture of wildly romantic love, merciless self-dissection, discussions of Art and literature or corrections of his lady's verses. Flaubert certainly loved her to adoration, but he always loved art more.

Within nine months occurred several attacks of his malady; *quibus nervi dolent Venus inimica*. In May 1847 his Parisian friend DuCamp took him away for a walking trip through the Châteaux-country and Brittany. This pilgrimage of three months was to be recounted by each in turn, chapter by chapter, in a semi-humorous journal, digressive and aggressive. Flaubert's half was published after his death under the original title: *Par les Champs et par les Grèves*. A mixture of impartial observation and pungent comment, with bursts of rhetoric worthy of Châteaubriand, its personal tone makes this volume dear to lovers of the real Flaubert, so carefully hidden in his acknowledged works. In these vivid pages, one feels the student, the artist and the lover of the past. At each castle or cathedral, he delights in reliving the days entombed there; like men and their passions, these relics are magnified for him by memory, completed by the death of those who made them shrines. There is a constant sense of reality, of exact detail, in the monument or landscape, but there is also a consciousness of

the ironic indifference of Nature to man's crumbling works, which suffuses the whole with restrained romantic feeling.

The following spring came the death of LePoittevin—his literary Mentor, a philosophical and lyrical spirit, to whose encouragement we probably owe *The Temptation of Saint Anthony*. Curiously, Flaubert's realistic books are always followed by romantic ones. After the first *Sentimental Education* and the Brittany journal, the Romanticist in him was eager to escape from contemporary life into the past, from the Occident into the Orient. A painting by Breughel, seen at Genoa in 1845, had revived the inspiration of his old mystery play; the lover of *Faust*, who at his first reading "had ceased to feel the world beneath him"—the Old Adam he had tried so hard to subdue—came to the front again. "What is natural to me is the non-natural for others, the extraordinary, the fantastic, the clarion voice of metaphysics and mythology." The subject moreover haunted him; it had to be worked out; only thus could he rid himself of its obsession. So Flaubert, who loved to repeat Michelet's motto: "Nothing tempting but the impossible," began this masterpiece of dream-literature, not to be published until 1874. He made the legend of Saint Anthony a vision of dying religions: all modes of life and thought and belief—all the gods from remotest antiquity to the modern divinity Science—pass before the half-dazed anchorite, a mad procession whose lesson is the vanity of all things beneath the sun. There was no action, and this version was much longer than the final one; it took Flaubert thirty-two hours to read it to Bouilhet and DuCamp, summoned to Croisset for the occasion.

Asked for their verdict when the last sitting was ended, his friends frankly replied: "We think you ought to throw it into the fire and never speak of it again." More alive to actuality than he, they knew that the book was twenty years too late: to begin publishing in 1850 with such a lyrical extravaganza would have been literary suicide. Flaubert, "plutôt vaincu que convaincu", sadly put the manuscript away. Concern for his health, much worse since the death of LePoittevin, now made his mother approve the journey to the East proposed by young DuCamp, and before the end of October the two friends set forth from Marseilles. From the start his letters are for his mother, not his mistress; there is something paternal in these letters, something of the son who later called her "ma fille."

The Eastern journey included Egypt, Syria, Constantinople, Greece and Italy. It was for Flaubert a real debauch of Romanticism, and he made the most of it. At Cairo he had his head shaved and adopted the red fez of the Turks, he tried to learn the cry of the camel, imitated the senile sheik and the howling dervish. He was tremendously impressed by the Pyramids, and the sight of the Sphynx gave him "one of the most vertiginous pleasures of his life." All this was of course to serve him later for the final *Saint Anthony*. They went up the Nile in a native boat, they saw the Red Sea, the Desert, the Thebaïd. He took notes at first, but the wealth of material soon made him stop: "it is better to be all eyes." Yet gorged with colour and thrilled by an exotic existence, he did not get over the verdict on his *Saint Anthony* for nearly four months.

The travellers journeyed by sea to Beyrouth, and from there to Jerusalem, which as usual proved a disappointment. At Damascus Flaubert went to see the lepers, a macabre pleasure which profited him in writing the legend of *Saint Julian the Hospitaller*. At Constantinople, with his face turned homeward, he had wild longings to continue the journey which he himself had shortened, to see Persia, China. The Acropolis moved him more than Jerusalem, and "more sincerely." "Oh the Greeks!" he cries: "what artists! I am breathing-in the antique with all my intellect. The sight of the Parthenon is one of the things which have most impressed me in all my life. Say what you will, art is no falsehood. Let the bourgeois be happy, I do not envy them their stupid felicity."

Yet here too, as in the case of the Sphynx, his emotion wears him out. His aesthetic delight is followed by the same nervous depression: "For all your travelling, you get no gaiety from it." He must see Italy for its art-treasures; he will not pass that way again. But he is plainly sighing for the "concentration" of solitude, for his literary evenings with Bouilhet, who came every Sunday to Croisset for their literary holiday of reading and discussion and mutual criticism; he begs him for his latest verses; he is tormented by lyric desires for "style", which thrill him even to tears. Again he speaks of the Dictionary of Accepted Opinions, which he had planned with Bouilhet in Rouen; his eyes are sharper to catch the stupidities of life; travel has developed his contempt for men by a closer contact. "One takes a deal of trouble to see

ruins and trees, but between the ruin and the tree one finds something quite different, and from all that, landscapes and depravities, results for you a calm and impassive pity." It is easy to see that this voyage was a good preparation for *Madame Bovary*.

They returned to France in May, 1851, and after a visit to England with his family—it was the year of the first Exhibition—Flaubert set to work on his masterpiece. For him the subject was nearly two years old, if we are to believe DuCamp; why is it never mentioned in his travel letters? It had its origin in real life: a certain Delaunay, a medical officer in a small town near Rouen, had been ruined and betrayed by a worthless wife, who died a suicide. As the three friends sat silent in the garden of Croisset the day after the *Saint Anthony* was condemned, Bouilhet had suggested: "Why shouldn't you write the story of Delaunay?" And Flaubert had shaken off his depression and cried "What an idea!"

Thus goes the story in DuCamp's *Souvenirs*, often more picturesque than trustworthy. Be that as it may, Flaubert's originality is indisputable. It was he, and he alone, who made of the obscure medical officer's wife a world-type. For Emma Bovary is not simply a realistic heroine; she is as real as reality. She is not merely a woman, she is woman herself under more than one aspect, and her tragedy is the ever-recurrent tragedy of disillusion. Reflecting her age, she reflects one side of every age, typifies all those whom romantic literature has spoiled for living. She is a martyr to the ideal, a victim of The Book, unable to fight reality in the borrowed armour of poetry. *Madame Bovary* is more than the *Don Quixote* of Romanticism; it is the indictment of life against a large part of our fiction.

But the character of the book only increases our wonder at the miracle of its creation. How could it come from the pen of a Romanticist? Flaubert first denied, but in later life admitted the personal basis: "Madame Bovary, c'est moi." In fact all his youthful dreams are there, beheld as through the wrong end of a dusty, distorted opera-glass, reduced to the measure of the weak and futile woman they are to drive down to sordid adultery and defalcation and self-inflicted death. But the characterization is perfect; she is never Flaubert, never the genius; she is always the drifting dreamer; and though typical, she remains throughout an individual. That she is a grandchild of Cervantes' hero is proved by what Flaubert says in letters of this period regarding

the persistence of this early influence on the mature cast of his intellect. As for Sancho Panza, the novelist has given us in his stead a whole group of characters, all bourgeois, all profoundly trivial, yet so absolutely distinguished that some have passed into literature and are quoted like real persons. Herein lies the triumph of the book, which took five years to write, and the writing of which the author compared to playing the piano with balls of lead tied to his fingers. To inform with life his heroine was as nothing to this stupendous creation; the actor in Flaubert had to "palpitate with the emotions" of characters which at times actually gave him fits of nausea. The day he "poisoned" his heroine, he vomited twice, and could not get rid of the imagined taste of arsenic in his mouth.

To walk the hair-line between twin gulfs of lyricism and vulgarity—that is how the novelist expresses the difficulty of his task in a letter to Madame Colet. Unusually full until their separation in 1854, this correspondence certainly provided an outlet for the writer's personality; we know how many poets have been made objective by a satisfied passion. Flaubert is now conscious of his two literary selves, "one in love with rhetoric and lyricism" and the other "a digger and seeker after truth, who loves to give relief to detail, who would like to make you feel *almost materially* the things he is reproducing." There the conflict is stated, and the constant struggle involved in this project—a struggle which cries out from almost every page of the letters—shows the book is a veritable triumph of will.

The reward of this pursuit of reality was the author's indictment for writing an "immoral" book, his trial and condemnation to pay a sum far greater than the price for which he sold it, only 400 francs. It seems that Flaubert was largely the victim of a censorship irritated by the political attitude of the *Revue de Paris*, which first published the novel in 1856. More disgusted than ever, he again declared that the artist must hold aloof from the mob and write for himself alone. So, after correcting the *Saint Anthony*, he put it aside as likely to bring him into further trouble. Months before *Madame Bovary* was finished, he had been sighing for a romantic subject, something allowing free scope to his long-repressed love of colour. The letters show him reading for the *Saint Julian*, but that too is given up for the time being. Finally he announces: "I am going to write a novel whose action



will take place three centuries before Christ. I feel the need of quitting this modern world, in which my pen has dipped too long, and which moreover tires me as much to reproduce as it disgusts me to behold." The result of this was *Salammbô*.

We remember his first historical novel, and the queen of France who saved him from suicide. Then it was the later Middle Ages or the Renaissance which fired his inspiration; now, with those veins exhausted by a host of novelists, Flaubert, after Gautier, reverted to an age more remote and more exotic. Not history but the young science of archaeology pointed the way, and Gautier had been quick to follow with his splendidly plastic classical and Egyptian tales. Why not then a Carthaginian romance? The task was certainly hard enough to be tempting, even to Flaubert: if he had in Polybius an outline of his subject, the War with the Mercenaries, this bare skeleton had to be clothed with flesh and muscle, draped in barbaric colours, vitalized with Punic ferocity. What better field for a poetic imagination?

It was as a scholar however that the historian of Emma Bovary attacked the problem. He spent months in gathering material. In two weeks, for instance, he "swallowed" the eighteen volumes of Cahen's translation of the Bible, together with the notes, finding in them not a few precious details for costumes, architecture, musical instruments and habits generally. But the mass of the material used was drawn from the classics: Xenophon, Ælian, Pausanias, Athenæus, Pliny, Silvius Italicus, Strabo, Theophrastus, Herodotus, Appian, Plutarch and the whole dusty ant-hill of modern archaeological research had to be ransacked; "one must be stuffed with one's subject up to the ears" in order to paint the local colour which comes without effort and "makes a book exude reality." Like *Madame Bovary*, the novel was to take more than five years of incessant toil, broken only by a visit to Africa in search of his landscapes—a journey which caused him to demolish as false the labour of months.

*Salammbô* has been called a magnificent failure, criticized as too remote, too barbaric, too full of archaeological detail, too lacking in plot despite the mysterious heroine added to provide a love interest. Something of all this is true; the author himself admitted that the statue was too small for the pedestal. But what a pedestal! Flaubert shows us a living Carthage, almost too real in its truculent splendour and cruelty, a Carthage built of gold and ivory

and blood, opulent, exotic, terrible as its god Moloch glutted with children's flesh. Gossip has it that Flaubert was trying, rhetorically, to reproduce the effect of purple, as in his previous book he had sought to render the colour of wood-lice. If gore unstinted will give purple, *Salammbô* fully attains his purpose. The book is an epic nightmare of horrors, with battles, massacres and tortures enough to prove a Freudian reflex to his self-repression; it escapes melodrama only by the muscular tenseness of its diction, the sheer force of a classic style. A masterpiece of scholarship and a triumph of imagination, *Salammbô* will always remain caviare to the general public; Flaubert himself said that he was writing for ten or twelve readers. Yet he obtained with it, in 1863 a *succès de'estime*.

The inevitable reaction followed, announced long before. "The deeper I plunge into antiquity, the more the need of the modern recaptures me," he wrote in 1859; even then he was "cooking up in his brain a mess of ordinary people." This literary ragôût was the final *Sentimental Education*. He did not again spoil things by giving himself a rôle; after twenty years that lesson was learned; indeed, his passion for objective facts and his desire for finality in externals made him plan to set forth the whole "histoire morale" of the men of his generation. For this picture of French society from 1840 to 1852 the scholar turned sociologist, demanding bits of personal experience from friends, spending months over books, newspaper-files and old reviews. The book is invaluable to the historian, but it took Anatole France, with his *Histoire Contemporaine*, to make such novels popular. Again the setting overshadows the actors; even the hero Frédéric, a weaker brother of Emma Bovary, fails to hold our interest; they are half-despicable nonentities, excepting Madame Arnoux who incarnates Flaubert's first love—the one really sympathetic figure in all his books. Characters and style alike are nerveless; the plot drifts aimlessly on the tide of events; one is crushed by the author's fatalism, overcome by the miasma of boredom reflected here from his weary days as student in Paris. His dislike for men was now become contempt, with dire results to artistic relief. Yet there are some who think this book Flaubert's best, because of its absolute reproduction of life in all its vulgar triviality.

Published in 1869, the novel's picture of '48 was soon forgotten in the stress of war and a greater revolution. The Prussian invasion made the writer a patriot; Flaubert in uniform drill-

ing a squad of militia is a pathetic figure dignified only by the tragedy he shared with France. "The Terrible Year" struck him down in his tenderest spot, his pride. "One cannot write when one has lost one's self-esteem." But he did write, mainly to escape the griefs already falling thick and fast upon him. In 1869 Bouilhet had died, his alter ego, "his literary conscience", and to the task of rewriting the *Saint Anthony* was added the duty of editing, with a preface, the poems left by his friend. Not long after the war other companions of letters followed—Jules de Goncourt, Duplan and Sainte-Beuve. In 1872 his mother died, whose self-effacing devotion had so long made possible his literary seclusion, who after his nightly debauches of composition, would keep the house quiet until he rose at eleven—his first unfailing morning visitor, come to sit a moment on the bed of her big boy and ask news of his work or sleep.

In 1872 also passed his brother-at-arms Théophile Gautier. Among the older generation there now remained only Tourgueneff and George Sand; after Bouilhet's death Flaubert had turned instinctively to the latter. He needed affection, and her generous heart, always in want of someone to care for, was quick to call him to its warmest corner. Her letters to him are admirable in affection and counsel; when she too died in 1876, he can only cry: "I have lost my mother a second time." After her death his literary letters are mainly to LePoittevin's nephew, Guy de Maupassant, whom Flaubert trained in his classic art and came to love almost as a son. But he clings most to his old friends, and one is glad that his sister's child, grown up in his home and loved and taught by him for many years, was to save him from the obligatory solitude of old age. When in 1875 this niece faced ruin through her husband's failure in business, Flaubert generously turned over his fortune, £46,000, receiving in return an allowance and a home with her. The needy novelist had to accept a sinecure as librarian to assure his modest luxuries.

The work of this gloomy decade shows no slackening in effort. Completely rewritten after much additional research, the *Temptation of Saint Anthony* failed to win the suffrage of the mob in 1874; two other dramatic ventures were no more successful. Flaubert now planned and began a work of satiric realism, *Bouvard and Pécuchet*. Finding this too difficult, he laid it aside in 1876 and wrote his long-projected *Saint Julian the Hospitaller*, a naïve

mediaeval legend inspired by a window in the cathedral at Rouen. After this short tale he returned to modern reality in a longer narration, *A Simple Heart*, the story of a poor rustic maid-servant, tender and devoted throughout a sordid life of toil, turning in love to all that surrounds her and sunk in her illusions to the end. A marvel of restrained pathos, the story shows that for once the novelist has listened to the good advice of George Sand. Next came the classically Oriental *Hérodiad*, with its vivid evocation of the past—a tale much admired and often imitated. It is a fine study of the opposition of races—the religious fanaticism of the Jews, the proud indifference of the world-conquering Romans: every figure of the story is living: Herod sated with vices, the wicked *Hérodiad* and her siren daughter, the fiercely vituperative prophet; the setting has a dazzling brilliance, a magic Syrian colour. These stories were published in 1877 under the title of *Trois Contes*. In artistry if not in significance the volume ranks with *Madame Bovary*; undertaken in a holiday mood, it shows what books Flaubert might have written had he developed the historical tale, instead of leaving it to his disciple and successor Anatole France.

His triptych finished, Flaubert returned to *Bouvard and Pécuchet*, the realistic satire in which he hoped to “spew forth his venom” upon a detested world of materialism. Taking as his heroes two middle-aged clerks, copyists both, he shows them spending an unexpected legacy in a mad attempt to satisfy their various desires for knowledge. Ambitious but inept, they “investigate” all the sciences, using stupid and contradictory texts; at each failure their curiosity turns to a new hobby, until, disgusted with the collapse of everything in their hands, they resolve to copy again as before. The two decide to set down (all) the silly and impossible things that books have shown them, for they hope by comparison to arrive at truth. This was to be the Dictionary of Accepted Opinions conceived by Flaubert in 1850, the book “which will make the reader no longer dare to speak for fear of uttering some of its platitudes.” It is a satire of human stupidity, nihilistic as all his books except *Salammbô*; after treating the vanity of religions, of romantic love, of modern politics, Flaubert wished to show the vanity of education made universal, the democratic dream; and for this monument to folly he read 1500 volumes and piled up a stack of notes eight inches high. Some think that this unique creation alone definitely proves his genius; others,

expanding a *boutade* of his own, that he had become "bête" by contagion. Obviously we cannot decide the matter, for this "book of his revenge" was destined never to be finished. The first half was not quite completed when the eighth of May, 1880, Flaubert fell dead of apoplexy at the foot of his desk, "hurrying desperately", as he tells us in his last published letter, and "weary even to the marrow."

He died a martyr to art, regretting like all old bachelors the children and especially the grandchildren foregone by his celibacy, confessing to George Sand the folly of his choice and its reason: "I was afraid of life." But this fear was reasoned, the effect of his malady; he was no weak character, like Amiel. Pride had early taught him how to overcome the timidity inherent in all imaginative natures. A mere boy, he cured himself of dread of the dark and dizziness when on a height—prowling in the school court-yard at dead of night, climbing steeples and walking on high balustrades. Even then Flaubert showed the will-power and virility which were to sustain him in his double battle with disease and with the muse. It is this which makes him, a grown man, keep at his Latin and Greek until he can read them, and which explains his victory over a natural lyricism. Will, supported by pride, gave him force to die a martyr to art.

His life has the unity of a great purpose. "I have always lived without distractions", he tells Louise Colet. "I was born with a lot of vices which have never put their heads out of the window. I am fond of gaming and have never touched a card. I like dissipation and I live like a monk . . . My life has never balked from the days when I could only write by asking my nurse for the necessary letters, down to this evening when the ink is drying on my corrections. I have followed a straight line, constantly prolonged and direct, through everything, and have always seen the goal retreat before me from year to year. How many times, between advances, have I fallen flat just as I seemed to reach it. Yet I feel that I am not destined to die until I have left somewhere a clarion style such as I hear in my brain, which may well rise above the voices of the parrots and locusts."

When he wrote this, he had not published a word. Yet he felt he was one of the Olympians. Before he died, he knew it. For twenty years he worked in obscurity, studying for hours each day at the fountain-head of antiquity, analyzing the great French writ-

ers to learn all the resources of his palette. It was the ideal which delayed him, not the conflicting forces of his environment and his literary heredity, confusing as they were. "My admiration of the masters increases as I progress," he tells us, "and far from losing hope at that crushing parallel, it strengthens on the contrary my unconquerable whim to write." He remembers the maxim on the identity of patience and genius, and cries: "Would to God that Buffon's impious speech were true! I should be sure to be one of the first!"

He knew all the martyr's joys. If he sacrificed all to his religion, he glimpsed in days of enthusiasm "a state of soul superior to life, oblivious of glory and happiness"; he strove to attain an aesthetic stoicism, and actually lived for days rapt in the world of his fancy. With all his vexations, he "would not exchange his life for anything." "I love my work with a love frantic and perverse as an anchorite's", he exclaims; begs his mistress to "save the essence of her passion for her poetry, for Art is great enough to use the whole of a man." Through Art he attains the secret of the mystics; "constant looking at the sky will give the seeker wings."

Critics have exaggerated the price he paid; it was only the price we all pay for the exclusive pursuit of a single end in a World of the Many. If his art, his solitude and his ambitions exasperated his sensibility, if he died a perfect misanthrope, content to be alone "because he then heard no stupidities", would he have found the pin-pricks of family life or the amenities of politics more endurable? He had a devoted mother, and he had friends to the end, for he was above all a friend; and they were always glad to receive him. But even in his last years, in his greatest literary loneliness, he refuses to visit Madame Sand in her lovely country-seat at Nohant, because he knows from experience that a visit would cost him three months of reveries, filling his brain with real images instead of the fictitious ones he had built up so laboriously. To regret that he never married may please the sentimentalist, but Flaubert knew that he was "a man-pen", destined to find ink "his natural element", that "thoughts and books and literary conversations of five and six hours with LePointevin" were the things he best remembered, and that for him, as he superbly tells Colet, "living had no concern." He died a solitary, but not without love, and as he thought with gratitude of the masters whose silent company had helped to make him a master, so his tenderness often

went out to the strangers, to the unborn who were to share his dreams. He did not die childless; no artist can read his books and his letters unconscious of his kinship with that Don Quixote of Art. As Flaubert himself said: "A book creates for you a family which will never die; all those who shall live in your thoughts are like children eating at your hearth-stone."

## THE SKEPTIC'S CHALLENGE.

BY HENRY FRANK.

(Continued)

THE CELL:

Who me  
From subterranean depths calls forth and asks  
To ope my tiny lips?

BRAIN:

Sing, elfin Child,  
Of living substance and its miracle  
Of birth.

CELL:

E'en though infinitesimal,  
Yet hath Nature reared in me,  
Structures rare and magical,  
Finer than man's eye can see.

E'en while yet Laurentian rocks  
Cooled amid the fires of earth,  
I, inchoate, in the shocks  
Of flaming carbon, saught my birth.

Upward through Silurian slime,  
Coral and cretacious crests  
(Wove of carbon, shell and lime)  
Caught me in their ageing breasts.

Ichthyosaurs, whose lizard form,  
Fish-like, clove the primal seas;  
Massive birds, that vied the storm,  
Saught me in the ocean's lees.



Mammoth forests, mammals vast,  
 Apes, prehensiled or long armed,  
 Harbored me from ancient past,  
 As life's stream my fellows swarmed.

Up from depths post-pliocene,  
 Time hath wove within my web,  
 Life's each changing, tragic scene,  
 As earth's tides did flow and ebb.

Prophesied in plasmic egg,  
 History confirms my fate ;  
 None needs God for favors beg,  
 He cannot now His laws re-state.

Cells that lie in leaf or bark,  
 Leaf and bark alone produce ;  
 Self-same insect, ape or lark,  
 Unlike cells cannot educe.

Each its kind must reproduce,  
 Moulded by the trend of time,  
 Urge resistless can induce,  
 But what chimes with Nature's rhyme.

Sprung from merging slime and sea,  
 Life thro me thus swift revealed,  
 Throbbing in a fluid free,  
 Shaped me in the soil concealed.

Up from protoplasmic yeast,  
 Primally alike, I ween,  
 Bubbles plant or man or beast,  
 Living fluid, red or green.

Each hath writ within itself,  
 Fate that fashions form and soul ;  
 I, the inborn mystic elf,  
 Urge them on toward final goal.

Nature, nascent, wrought through strife,  
Proving what best thrives is best;  
In the struggling march of life,  
Conquering forms defied arrest.

Cells innumerable have thriven,  
In the protoplasmic stream,  
Each with primal impulse driven,  
Far from Eozoic dream.

Fixed in fated, final form,  
Each cell at its office works;  
Though in space a myriad swarm,  
None its instant duty shirks.

Time was when uncertain fate,  
Lingered in unshapen cells;  
Struggle, stress, contention, hate,  
Destined each where now it dwells.

Magical the structures reared,  
By these elfin architects;  
Castles, houses, with most weird,  
Labarynthian effects.

Tiny, microscopic forms,  
Genius, manifold, display;  
E'en in trampled, earthen worms,  
Marvels lurk that men dismay.

Palpitant, each drop of life  
Throbs with vast machinery,  
Weaving like a shuttle rife,  
Shapes past human mimicry.

Every form of mammal, plant,  
Fibred flower, convolved-brain,  
Slowly grows from substance scant,  
Bit by bit and grain by grain.

We, the magic toilers are,  
 Miracles of nature work ;  
 Gods cannot create a star,  
 But with powers that in us lurk.

Outwardly our form oft dies,  
 Deathlessly our substance lives ;—  
 Where Life's shuttle swiftly flies,  
 There the essence of us thrives.

Life, 'tis ours to give on earth ;  
 Dint of our mechanic toil  
 Weaves, in planetary birth,  
 Soul and sense, from inert soil.

Up from slimy "ooze" we climb,  
 Ever on from mite to Man,  
 Through aeonic gulfs of time,  
 Seeking Nature's vaster span.

BRAIN :

*(exultantly)*

List, thou benighted Sponsor of the Faith,  
 To knowledge falling from the lips of those,  
 Who toil with indefatigable skill,  
 And build the microscopic majesty  
 Of Kingdoms, tho invisible, sublime,  
 Inimitable and unparalleled.  
 Thou prat'st withal of supersensuous soul,  
 —A tenuous, sublimate, encompassing  
 Entity—a substance, void of aught  
 Substantial—essence superior to laws  
 That reign in space—uncorrelated with  
 Pan-Cosmic energies that surge from suns,  
 Or spiral incandescent Nebulae,  
 From chaos weave the planetary spheres,  
 Or wake the sleeping buds on vernal boughs.  
 Thou reason'st, 'sooth, "Mind is not chemic or  
 Cohesive force combining molecules,  
 Which shape the infinite phenomena  
 Of rolling worlds ; nor is 't electric spark,  
 Which from fused atoms confluent forms evokes ;

Nor magic Motion metamorphosed in  
 The vital, throbbing cells, whose ruby breasts  
 The stage become whereon enacted is  
 The mirage and tragedy of Life."  
 Hence Mind is other than aught manifest,  
 Within all visible or viewless realms,  
 Uncorrelated, super-spacial, free!!  
 Thou prat'st of an Architect of worlds,  
 Though infinite, beyond Infinity.  
 A Being compassing Infinity,  
 Himself beyond an infinite universe!  
 Such logic would befoul a sea of thought!  
 'T is contradiction's very self. Or Mind  
 Is all, or Matter: or, perchance, the two,  
 Identical, are opposite sides of each.  
 Diverse in function, once, inseparate  
 In nature; in essence all identical.  
 Whatever Mind may be, it must needs be  
 Invisibly inwove in visual forms,  
 And one with Energy that moves the world.  
 'T is inconceivable that Mind's a Thing,  
 Apart and extricate from substance, which  
 Is all-pervasive. If Matter be, 'tis Mind;  
 Or mayhap—Mind is Matter's other self,  
 Both immaterial and material,  
 As sense-perceived, or felt insensible.

MIND:

Halt, thy too rapid speech! O Reason hear:  
 This boaster claims machinery and mind  
 Are one: The Thought which organizes is  
 The thing itself, self-shaped from shapeless mass  
 Into organic grandeur. The Builder and  
 The building are the same: The Clock creates  
 Itself with genius increate. O Fie!  
 O how has Logic fallen to base use  
 And merged in mimic nonsense. 'Tis too true  
 The age is all distraught, confused, by wild  
 And senseless admiration of a false  
 And boastful Science.

BRAIN :

'T is sad to hear thy groans.

These are the piteous grievings of an Age,  
 Though moribund, unconscious of its death.  
 If Reason grant I will my summons send  
 For still another witness who shall prove  
 That what prevails, and called the universe,  
 Was not directed to its end by some  
 Intelligence that played upon 't, as plays  
 With clay the potter. 'T is Man is self-deceived.  
 He, standing on the topmost summit of  
 Age ascending peaks, *chef d'œuvre* of Time,  
 Himself, the acme and supreme apex  
 Of Nature's moulding powers, motivated and willed  
 By conscious purpose, thinks that Nature is  
 Thus purposed by some pre-existing Mind.  
 He would the infinite confine within  
 The bounds and limitations of the laws  
 That operate within his narrow being.  
 Beholding stationary objects moved  
 By his initial impulse, he recks not  
 Of Motion beginningless, inherent in  
 The universal essence; knowing he  
 Discerns but objects moved externally,  
 He halts at thought of Builder dwelling within  
 The building of life evolving from itself!  
 He sees the *outer* world: 'T is Science casts  
 Its penetrating eye beyond the mist  
 Of momentary vision, weighs the stars  
 And suns upon its balances; dissects  
 Their vast anatomies, dissolves their beams,  
 And learns the secret of their origin.  
 The intimations of a buried Past  
 She scents, and, sleuth-like, trails the mystery,  
 Through cosmic labyrinths, till solved at last!  
 Behold her work: She causes the glistening sand  
 Upon the beach to ope its flinty lips,  
 And speak its truth; she makes the boneless worm  
 Its parentage reveal; the bell-domed flowers  
 Upon the sea, the urchins, starry-shelled,  
 And bony-shielded reptiles makes tell whence

They sprung, and from what fiery soils: and e'en  
 The earth, prolific mother of all forms,  
 Must needs divulge her inmost secrets; speak  
 Her origin from flaming Nebulae:—  
 She must again disport the fiery robe  
 That once enveloped her; the plangent mists  
 And watery envelope which once concealed  
 Her mountainous breasts, that heaving bulged anon  
 Above subsiding seas; she must reveal  
 Whence soil and seed begun, and whence the life  
 That surged and swelled in thousand rivulets  
 From self-impregnant womb; she must give tongue  
 To every leaf and pebble, to layers of dirt  
 That stratify the globe; to fossilied stone  
 And bones, the teeth of centuries have gnawed!  
 The panorama of the world, the eyes  
 Of Science survey with penetrating gaze:—  
 Its cosmic transformations, tragedies;  
 Its cyclic births and deaths, recorded in  
 Millennial resurrections; its unbegun  
 Beginning and its endless end. Bethink:—  
 To listening ears of Science, Time narrates  
 What countless centuries have left untold.  
 This knowing, no more should humble Man, bewitched  
 By sacred ignorance, belie the plan  
 Of Nature, measured by his paltry powers.  
 Man strives t' achieve by conscious will; therefore  
 His limitations: Nature, self-evolved,  
 Forges forth from Atom's unsensed throb,  
 To crowning Consciousness in Man sublime!  
 Hail, first-begotten, foremost offspring of  
 Self-forming, self-evincing cosmos, speak!

*(slowly above the surf-laden surface of the waters, emerges the peak of  
 a rising mountain. When the embossed knoll is well above the  
 water's edge, the sea gradually stills, lapping at last in  
 leisurely waves, and upon the mountain-top there  
 appears the perfect shape of a human bust, as if  
 cut out of the rocks of the peak. It represents  
 the ideal Goal toward which all the  
 manifold shapes and forms of  
 Nature have been moving)*

FORM :

Naught but myself exists, nor can  
E'en primal mists unshapen move  
From primal urge to final man,  
From flaming gas to stars above.

All energy seeks path in space;  
Ultimate shape each motion takes;  
No less the ray in rapid race,  
Than wave, the tempest madly shakes.

The vapor floating in the sky;  
The viewless germs that ride the air;  
The flakes of snow that wayward fly;  
By me are fashioned, frail and fair.

The cystalled grain, the fibred leaf,  
The fronded fern, the crawling worm,  
The wriggling sperm in neural sheaf,  
Have struggled toward their final form.

I have not always been as now,  
But slowly through millennial strife,  
Time shaped the fashion of my brow,  
And lineaments carved by struggling life.

I was not, ere all worlds began  
Predestined and forethought by fate:  
Or cast athwart the infinite span,  
Full-formed in embryonic state.

None saw me, erst I trod the Void,  
Or latent lay in Chaos wild,  
Or, seized by Chance and oft decoyed,  
Was toward some distant goal beguiled.

For none so rash to prophesy,  
How sprung from far chaotic womb,  
Each myriad possibility,  
Would final form in time assume.

Behold the snow flakes on the pane!  
 Their sparkling crown and star-formed crest,  
 (From moisture fashioned grain by grain)  
 The plan of Nature well attest.

Ne'er Man's ingenious mind hath wrought,  
 Such magic as these vapors weave,  
 When frosts, which have their bosoms saught,  
 With chilling passion to them cleave.

The mists' white feet, in variant form  
 Flit vagrantly through frosted air—  
 Unlike in calm or gathering storm,  
 When skies are dun or sun is fair.

'T is chemic or electric touch,  
 The pulsive heat, or radiant sky,  
 The weight of gravitation's clutch,  
 Or cosmic stress, determines why.

I shall thus variously disport,  
 In multifarious moulds, the power  
 That reigns supreme at heaven's court,  
 To shape a star or humble flower.

Thus throughout the natural world,  
 All forms evolve from forces, welled  
 From primal source and onward whirled,  
 Till by conflicting forces quelled.

Naught pre-exists as final form;  
 No destiny foretold its end;  
 Else useless were the stress and storm,  
 That from eternity contend.

The stars whose constellations swing  
 Their pendulous orbits through the sky,  
 Heard not the morning angels sing  
 Creations hymn from thrones on high.



With cosmic and concussive shock,  
 Their cataclysmic course they saught;  
 Their whirling seas of fire did rock  
 The world, as ruthlessly they fought.

Their breasts with titan blows oft smote;  
 Their shaping forms to atoms crushed:—  
 Restored, upon the heavens they wrote,  
 Their fiery epic as they rushed.

Whence come, or whither fleeing, they  
 Uncharted, knew not, nor shall know;  
 But onward, through the stellar way,  
 Their courses seek like whirling snow.

Thus, Whate'er in heaven or earth,  
 Is cast within Expression's mould,  
 Reveals the meaning of its birth,  
 When read in Nature's tale, oft told.

Millennial epochs come and go,  
 The stars repeat their ancient life,  
 And cyclic resurrections flow  
 From cyclic death and cosmic strife;

Still, whatsoe'er my changes be,  
 I am eternal, infinite;  
 The world's vast drama is of ME,  
 And yields me homage requisite.

BRAIN:

Thus speaks the wisdom of the star and stone,  
 Or crude and nebulous essence that once surged  
 Through seas primordial, till shaped to worlds.  
 And thus all substances, from ghostly rays  
 And vanishing atoms, carve their native forms:—  
 No less, impond'able than opaque things  
 Leap from invisible sources of the air.  
 O womb of infinite Fecundity:  
 O, cosmic, procreant, all-filling Ether,  
 Abyssal vista of Eternity,

Thou, too, by form immeasurable, art  
 Encompassed, beyond the mental grasp of Man,  
 As natural law and reason postulate.  
 To Man the infinite is compassed by  
 The horizon of his mental vision, which  
 Fades in vague, vertiginous distances.  
 Immeasurableness is not unmeasured, save  
 By incommensurate minds. The sky-kissed mount,  
 Whose hooded brow is studded by the stars,  
 Is measureless to crawling worm; and, well,  
 The gilded mote might deem the golden ray,  
 In which it floats, immeasurable, if  
 'T were conscious; forest monarchs would to grass  
 Blades seem beyond the reach of rule or chart.  
 In Nature, all is due proportioned and  
 Perceived as relative.

MIND:

*(angrily expostulating)*

Ah, relative,

Indeed! But who ordains the appointed bounds  
 Of relative function? Who hath swarmed the Void  
 With fecund Forces that beget in womb  
 Of Time, the diverse forms that Nature needs?  
 Who hath these all-substantial worlds evolved  
 From Naught? Who hath so armed the Atom's breast  
 Protected, that it drives what it dislikes  
 From its embrace, and what it likes attracts?  
 Who first conceived of Form, while Matter was  
 Invisible, chaotic and unshaped?  
 Who carved the contour of the Universe,  
 With matchless grandeur and sublimity?  
 Who urged initial impulse on inert,  
 And moveless Matter, whose inertia wells  
 Within, and drives it on its endless course?  
 Who twirled the spiral rings of Nebulae,  
 And from their substance rolled the golden orbs,  
 That glorify the amethystine skies?  
 Who timed the clock-like movement of the spheres,  
 And tonal rhythms of aerial waves?  
 What, then, is Matter but the mould of form,

The Potter casts in matrix of the Mind?  
 Without His conjuration, where were worlds  
 And planets that populate the bluey Void?  
 Speak, if thou canst, whence Matter, Force, or whence  
 The electric clasps that wanton atoms bind?  
 O, wondrous wisdom, crowning Nature's work!  
 Came all by Chance, that specious god of thine?  
 Or was't ordained by Him, the Infinite,  
 From whose supernal Mind, the blending beams  
 Of Wisdom and Intelligence pervade  
 The visible and invisible paths of space?

BRAIN :

I previously have said, that Science sunk  
 Its probing shafts into the mysteries  
 Of Nature to such depths, already it  
 Has reached the vanishing rim of substance and  
 Ostensible reality, where sways  
 Tumultuous Energy, unheard, unseen.  
 Man, now, amazed, pursues the floating wraith  
 Of Matter, past visual zones till it dissolve  
 In Motion's vibrative, ethereal waves.  
 Thou speak'st of Naught, whence sprung created worlds!  
 That Nothing is, which lies beyond the reach  
 Of human sense; yet 't is but nothing to  
 The unperceiving sense. When substance fades  
 Beyond the zone of sense, tho dissipant  
 And swallowed by Vacuity, 't is not  
 Dissolved to Nothingness, tho lost to sense.  
 There is no nothingness, nor vacuum,  
 In the far, abysmal depths of shoreless space!  
 If Nothing were, then God were nothing, too;  
 Or Nothing were true God. For how can Aught  
 Exist in Naught, save as the Naught itself  
 Become existent Aught? Be not befooled!  
 If God made Matter, Himself, then, matter is.  
 Else were He ignorant of what He made,  
 And His omniscience were a vapid boast.  
 The Universe is not a sphere, and bound  
 In space, outside of which a God may live;  
 'T is neither here nor there, but everywhere;

All-comprising, boundless, infinite, supreme!  
 And God himself is therein full expressed,  
 Or else unsought by thought of rational Man.

And, prithee, what of Spirit? Knowest thou aught?  
 Where is't? If insubstantial, where abid'st it?  
 If not of Matter how shall Matter sense  
 What is insensible? Impassable  
 The gulf twixt Sense and Spirit if diverse  
 And incommunicant each be. Thou, loud,  
 Of Spirit speak'st; but Science, of Energy:  
 In Nature both must be the same, the Source  
 Primeval, whence from seeming nothingness  
 Majestic grandeurs of the world unfold.  
 Here then may reason rest at last in peace,  
 Discerning harmony in human thought:  
 Here found, at last, the final unity;  
 In Nature and in Man, the conflict ends,  
 And energy and spirit breathe as one:  
 They are but breathing wave and waving breath,  
 Eternal Motion whence evolves the world.  
 Come forth, then, Thou eternal Source and speak:

*(over the entire globe a strong, stirring but evenly modulated breath of wind sweeps round, carrying with it all movable objects, yet not creating commotion, but rather a pleasing sense of intermingling harmony among the moving objects, while the globe itself revolves leisurely. Finally a zephyr seizes a mist upon the surface and whirls it slowly round and round in spiral form till it assumes a lofty graceful figure, whirling round in the gentle breeze, and lit with green and red and violet rays. The figure, MOTION, speaks)*

(To be Continued.)

## A CRITICAL VIEW OF PROGRESS.

BY F. S. MARVIN.

Using as far as possible Mr. F. S. Marvin's own words, I have tried in a previous article<sup>1</sup> to sketch the development of the gospel of progress through science which he preaches. A critical history of its growth would be a very different thing, and something much needed. I attempted, however, simply to present this doctrine as it is conceived by those who believe in it. I do not know how real it may seem to the majority of informed and sober people. To me, I confess, it seems flimsy and shallow; yet its very confusion and self-contradictions make its adequate criticism a complex, difficult task. This task I do not now propose to undertake exhaustively; I wish merely to mention a few very simple considerations which such a criticism would have to include.

In the first place, Mr. Marvin pretends to write history, and to prove this doctrine by the sanction of historic fact. He candidly tells us, it is true, that while "the growth of a general or European frame of mind" is perfectly evident, still, "it is one thing to believe in and realize this, and quite another to trace its workings in the manifold difficulties and turnings of practical life." Yet he has an easy way of surmounting this and similar difficulties. His method is just to disregard everything that does not support his "strong clear clue." "We are surely justified," he says, "in giving the first place in our treatment to those sides of human nature in which the historic development is most marked." And again: "From tool to tool, from flint axe to steam-engine, is a striking, palpable measure of man's achievement from his earliest beginnings to our own days. This must not be understood to confine the idea of progress within the limits of the mechanical arts or to suggest that mechanical tools are the highest product of human intelligence. . . . But man's tool-making is so characteristic and progressive, it brings together

<sup>1</sup>"Progress through Science," *Open Court*, February, 1922. Both articles form parts of a book, *Progress and Science: Essays in Criticism*, to be published in the early fall by the Yale University Press.

and exhibits in working order so many of his powers, that if we were isolating one aspect only of his activity, the series of his tools would best display the growth of mind." Mr. Marvin shows skill in achieving plausibility, but by this simple method one can make history "prove" anything one wishes. It has often been done; and accordingly the person who wants to be convinced rather than hypnotized must throughout Mr. Marvin's work rewrite it for himself as he reads. Evidently, these books are not "history" at all, though their disguise is singularly effective for capturing those who swallow propaganda whole.

A case in point is Mr. Marvin's treatment of religion. He is struck by the religious basis of ancient civilizations, such as that of Egypt, and he sees that the formation of strong and stable governments, extending over great areas, apparently had then to depend upon the development of the religious spirit. Accordingly he says that the religious spirit was valuable for the beginning it alone could make towards the organization of humanity for the conquest of nature; it alone was able to bring and hold together great societies around one centre of government, to inspire individuals with such passion for the social structure as to forget themselves for its sake. We owe, he continues, the same debt to Mediæval Christianity. At the break-up of the Roman Empire Christianity providentially stepped in, not merely to rebuild an old civilization, but to widen and strengthen its germ of permanent truth—that is, to implant in men's hearts the hope of a world-polity in which all humanity should be harmoniously united in the pursuit of a common social end. The consequence is that the Middle Ages, which apparently contributed nothing to progress through science, in reality gave us the very possibility of such further progress. It is true "that at the close of the Middle Ages man was not on the whole better equipped by his knowledge of the laws of nature than he was in the hey-day of Greek science. . . . But on the other side of the picture we see the social force and unity of the vanguard of mankind immensely strengthened by the process of these unscientific centuries; and this development was no less essential to the coming conquests of mankind than scientific knowledge itself." "The social unity of all mankind, the common action and purpose of the universe," we are told, "became articles of faith, guaranteed by the most powerful organization in the world." And mediæval Christianity culminated in the "demonstration" "that there is one principle which rules the heaven-

ly bodies in their certain courses and by the same law the souls of men. As surely as we see the former revolve in their orbits, so surely is mankind created to work together for the salvation of all." Thus the "ideal purpose" of the Papacy was "to bring together the two realms of man and nature under one Law of Love."

Mr. Marvin unobtrusively makes the transition from talk about the social benefits resulting from religious faith to talk about religion as being itself essentially socialistic propaganda. It is a remarkable transition, but the passages just quoted show that it has been made. Accordingly it is easy for Mr. Marvin when he reaches the nineteenth century to say that in this period, particularly during the last thirty years of it, there was real and great "religious" progress, and that it centered in "the growing devotion of religious people to good works, especially of an organized kind." "The progress of religion," he says, "consists essentially in bringing its conceptions more and more nearly into harmony with the highest moral ideas of mankind." Now "in our own and recent times both the public and the preachers are turning to the good will, the good life, the desire to help one's neighbors, as evidence of religion, apart from creed or formal practices. . . . The modern parish and diocese is a network of societies and agencies for improving the moral and social condition of its members."

Plainly here is falsification of two kinds. In the first place, Mr. Marvin misrepresents the well-known character and essential nature of mediæval Christianity. Christians did indeed preserve much of the old Greek and Roman civilization through the long period of barbarism and slow rebuilding; they did hasten the development of a new European civilization. Yet it can be said in a sentence that civilization was not the Church's aim. Whatever its failures and lapses, the Church did not aim at the creation of an Earthly Paradise. Often unwillingly and always with difficulty, the Church still did contrive to preach the depravity of the natural man and the sinfulness of all earthly and fleshly desires. Not social amelioration but the greater glory of God through the redemption of men's souls from temporal corruption was the Church's aim. Certainly a vague sense of human solidarity did arise in isolated instances from the reflection that God's grace might come equally to all men, irrespective of race or social condition, but this is a very different thing from saying that the Church taught as an article of faith "the social unity of all mankind." To recognize this it is enough to remember that

the Church never discouraged the private accumulation of wealth, that it never sought to relieve temporal injustice or oppression, that it never attempted to level social inequalities—that, in a word, it frankly left worldly affairs to the children of this world, being itself concerned with the totally different, eternal realm of the spirit. And so far as it failed of this general aim, failure did not come from any bias in favor of social amelioration.

In the second place, Mr. Marvin misrepresents the nature of religion itself. Did any man or woman—it may be asked, with no intention of flippancy—ever worship God in spirit and in truth for the sake of providing the children of the poor with pasteurized milk, or in order to found homes for orphans?—did any man or woman indeed ever worship God in spirit and in truth for the sake of making his neighbors across the street or next door more honest? A plain answer to this question puts the matter in a clear light. To any one who has known religion even at a distance the question will seem perhaps worse than absurd, yet it makes a fair summary of Mr. Marvin's assertions. The truth is that a religious person may partially express or give outward result to his religion through good works, even of "an organized kind." He may thus, for instance, help to support "fresh-air homes" for city children or, more questionably, he may see to it that his neighbors do not disobey the prohibition law or falsify their income-tax returns. But others may do these same things from quite other motives, from simple good will or benevolence, from devotion to efficiency, from the itch which allows no rest to the meddling busybody. Good works thus are not even certain evidence of religion, and are by so much the less religion itself. Religion itself is a condition of the inward man—an inner, personal experience in which the individual finds new life in the consciousness of the grace and the fatherhood of his God and in the assurance thereby given him of the eternal peace which passeth understanding. This means that essentially religion is not a social activity at all, and that, moreover, the very entrance-way to religion is a deep conviction of the relative emptiness of the mutable things of the outward world. This truth is as old and as generally known as it is fundamental; yet to many, perhaps to most, even the language here used will seem unreal. As far as this is so, if we are frank with ourselves we can only confess the obvious reason—that we are strangers to the religious experience. Perhaps some of us are unconscious strangers, if we have mistaken



for religion some meagre or pallid system of ethics. In either case such confession, however disagreeable, is at least serviceable to the cause of truth. And self-deception is the most innocent name one can give to all attempts at the transference of a creditable name to secular activities howsoever meritorious.

Mr. Marvin's treatment of the history of Christianity and of the nature of religion gives a new, rich meaning to two old-fashioned aphorisms by Benjamin Whichcote. "Among *Politicians*," Whichcote said, "the Esteem of Religion is profitable: the Principles of it are troublesome;" and "The grossest Errors are but Abuses of some noble Truths." These sayings are sufficient comment upon the nature of Mr. Marvin's perversion of truth in his well-intentioned effort to write history according to his own fancy. Yet in this quite as fully as in his general belief in progress through science Mr. Marvin faithfully mirrors a popular contemporary point of view. There is a connection here which will presently become plain. First, however, it is necessary to glance at several aspects of this general belief.

Knowledge, said Bacon, is power; we may command nature in so far as we learn her laws and obey them. Such knowledge, then, opens up to us stores of power, or material wealth, not otherwise obtainable, and from this profitable character of science has come its popular justification and its immense prestige. In considering this fact a remark made by Thomas Hobbes is worth remembering. "In the first place," Hobbes wrote, "I put for a general inclination of all mankind, a perpetual and restless desire of power after power, that ceaseth only in death. And the cause of this, is not always that a man hopes for a more intensive delight, than he has already attained to; or that he cannot be content with a moderate power: but because he cannot assure the power and means to live well, which he hath present, without the acquisition of more." No one is likely to dispute these words, but they bring to light a problem. For the desire of power means primarily power for one's self, or at the very least power in which one can definitely participate. It is a common-places that we feel pride in our country's power so far as we benefit from it in material prosperity; that, on the other hand, our feeling tends to be one of resentment—making more or less violent "reformers" of us—in proportion as we are conscious of not receiving a fair share of the general wealth. This at any rate seems to be the very common rule. Moreover we want

wealth ourselves for our own private purposes, which are diverse. That is the fact which makes power a neutral thing, perhaps good for the individuals who fortunately possess it, but at least as likely to be evil in the long run for them, and altogether likely to be evil for the generality of mankind. For power always involves control over other human beings, the use of other men as instruments for one's own ends. This is the unescapable fact, though many habitually and conveniently forget it, no matter what the form of one's wealth may be, and, it may be added, no matter what the form of our political institutions. The demagogue proposes an easy remedy for the evils of power. He would simply make it "public," instead of private; and it is always possible that his appeal to the gullible will so succeed as to effect a redistribution of power from which the demagogue and his friends will benefit. But the very nature of material power is such that it can be made "public" in only a fictitious or verbal sense. A group of individuals must always control it, and in doing so must use other human beings as means to their own ends. Demagogues may be more conscientious and humane than other men, or they may not—but we have nothing save their own assertions for surety. A strong effort is apparently still on foot to convince the rest of the world that the new distribution of power in Russia is not succeeding. This may or may not be true; but the significant fact about the Russian experiment appears to be that already it has been discovered there that the sole condition of success is governmental compulsion to industrial work.<sup>2</sup> Granting that the government is composed of perfect and incorruptible beings, stable prosperity may thus in time result for the *community*. But prosperity conditioned by the tyrannical oppression of the individuals who make up the community can in the end prove only an empty mockery, no matter how widely it is distributed.

Mr. Marvin is more or less hypnotized by the contemplation of material power. He thrills with emotion whenever he speaks of its vast increase through science. This is, he says, "stupendous," which no one would deny. Yet Mr. Marvin is no sophistical advocate of the "public" control of power, nor yet is he blind enough to commit himself to the position that power is in itself a good thing. Concerning the latter, "it would be well for the world,"

<sup>2</sup> Since the above sentences were written it has become plain that even this measure has been unavailing.

he says, "if the unification of scientific theory had had its counterpart in the unification of sentiments and aims in life. But progress in inventions . . . has been as fruitful in producing more and more effective ways of destroying the life and work of man as it has been in protecting and promoting them. One hopeful fact, however, may be recorded. Nearly all the achievements of science in fabricating weapons of destruction can be converted with little change into constructive channels. The process of manufacturing the most deadly explosives is near akin to that of producing the most effective fertilizers of the soil. Dynamite prepares the way for railroads as surely as it levels forts." This fact may be admitted; but in recording it Mr. Marvin quite begs the question which he himself raises, and we shall presently see that there is little enough basis for hope that men's aims will soon cease to conflict with each other. In fact the more perfect the unification of such sentiments and aims in life as Mr. Marvin has in mind, the more certain are future conflicts amongst men.

It must be remembered that the goal of our progressive humanity is "the fullest life of which the individual is capable"; in other words, the attainment of a state of affairs in which the individual may freely satisfy all his desires, which are assumed to be naturally good. They are also numerous. "Man is a great deep," wrote S. Augustine, "whose very hairs, O Lord, thou hast numbered and they are not lost in thee; yet more easily numbered are his hairs than his affections and the motions of his heart"—*et tamen capilli eius magis numerabiles quam affectus eius et motus cordis eius*. This is true; men's desires, free rein being given them, are inordinate; they endlessly grow in intensity and in number. Old desires increase through satisfaction and new ones are added to them. Periods of satiety and disgust do not retard their march. Every one knows that commerce finds its readiest and largest, if not always its surest, profits in novelties; and the rapidity with which fashions, not alone in clothes, alter themselves is proverbial. This "expansion of the spirit," as Mr. Marvin loosely and admiringly calls it, is a restless longing for change and new excitements which from its very nature can never be satisfied, for satisfactions do only increase it.

One may wonder if "progress" of this kind is worth our effort, and if its contemporary apologists are really understood by their energetic and unreflective disciples. Yet this is not the only fact to

be taken into account in understanding its nature. One of the remarkable and almost neglected results of the union of science with industry has been an increase—it is said of well over four hundred *per cent.* in a hundred years—in the population of the western hemisphere. As our power of satisfying our desires has grown, so has the number of those who insistently desire. The development of organized industry, too, has been to a great extent dependent on this increase in the army of workers. We may easily develop means of controlling our numbers, but, if our population becomes stationary or dwindles, so inevitably will progress through science cease or recede. From this there is no escape; the fact is only evaded, not met, by loose conjecture, which can derive no sanction from history, concerning man's boasted inventive capacity. This capacity is marvelous, but it operates within strict limits, of which requisite man-power is one. Furthermore, applied science has thus far contrived for a brief space, as such things go, to improve the material well-being of a large minority of the population of about half the globe. This material betterment has been extraordinarily great, but for it we have already paid a price which we are only now beginning to realize. Even Mr. Marvin admits that in the early nineteenth century "the condition of the mass of the people of England was probably worse than it had been at any previous period," and this is certainly not the darkest part of the story. Then and later, industry has succeeded only through oppression, through the degraded and ruined lives of the multitude; and the attention paid to material benefits has had its natural consequence in materializing, narrowing, and debasing the lives of rich and poor alike. Yet what we have paid in these ways is perhaps nothing to what we shall still pay. We entered upon a new period of payment in 1914, which will be with us for many a weary year. "Competition of riches," wrote Hobbes, "honor, command, or other power, inclineth to contention, enmity, and war: because the way of one competitor, to the attaining of his desire, is to kill, subdue, supplant, or repel the other." And as such competition brought on the war, so did exact science make it the most destructive and cruel struggle within recorded history. Its economic consequences are already seen to be of the most pervasively dangerous kind. Yet the sort of "progress" possible through applied science by its very nature promotes just such wars.

If the aim of making mankind more comfortable were attain-

able, and if the price paid for material benefits were not far greater than the benefits themselves, there would be still the question whether this would contribute, as Descartes and countless others have thought, to the real betterment of humanity. Perhaps this question has already been answered, but it deserves explicit recognition. Wise men of all ages have laid it down that real human betterment can come only through the development of our spiritual capacities, and that all other things should serve as means to this end. Without being more precise, we may accept this as a truism which no one can seriously deny. It is easy to see that a starving man's greatest need is food, and a freezing man's, warmth, and that without these and similar elements of material well-being a man cannot, if he would, cultivate his higher faculties. It is also easy to say in consequence that if men are once made sufficiently comfortable and given sufficient leisure they will all straightway turn to the cultivation of their higher faculties. That is the argument, and Mr. Marvin like the rest looks forward to the attainment in this way through science of the spiritual betterment of the race. But argument is too dignified a word for such reasoning. Patently nothing of the sort actually happens, nor is there any good ground for hope that it may. What does happen is that concentration of attention upon material well-being blinds one to benefits of any other kind. The power to secure material advantages breeds, as has been said, simply the desire for more. The "sufficiency" of which Mr. Marvin and others fondly dream is never achieved, because this desire is infinitely expansive and can never be satisfied. Yet as far as it is satisfied it inclines men to believe there is no reality or meaning in spiritual values. Their materialized lives are good enough for them. Any one who has never learned and relearned this from his neighbors—any person so singularly fortunate may find in the life of our age more general illustrations of compelling force, not to speak of the assumptions underlying the exact sciences. One of the most significant, if not the most striking, of these illustrations is the decline of liberal education, most notable in America, but beginning to be evident in Europe as well. Everywhere it is being supplanted by vocational and technical training which meets the irresistible demand for something "practical." Nor only this, but the subjects of study most profitably yielding themselves to philosophic treatment, and of the greatest efficacy for educating the

characters of men, are prevailingly taught in an illiberal manner, aped without discrimination from the exact sciences, by teachers with eyes only for facts to students with eyes only for trade values.

It seems to me that in the light of these considerations Mr. Marvin's loose talk about the unifying efficacy of science loses all plausibility. Men are not necessarily united or filled with brotherly love by being brought, physically, more closely together. This has been known indeed rather to kindle antipathies which, if repressed, sooner or later break forth with preternatural vigor. This at the most produces a dull uniformity of manner and appearance which bears no relation to the unity of which Mr. Marvin speaks. Nor are these results attained by teaching men the interrelations of phenomena and so, amongst other things, taking their attention from their human problems while emphasizing their kinship with beasts. Again, the modern worker's realization of the dependence of others upon his execution of his task is not so likely to fill him with love of humanity as with the sense of power. In proportion as he realizes the necessity of co-operation amongst men he tends to turn that need to his own private advantage, holding up his industry or society at large for a higher material reward. No one blames him for doing this who does not also blame his employers, who are playing exactly the same game; but surely to the fact no one can be blind, and indeed there can be no reasonable expectation of a different state of affairs. Moreover, granting Mr. Marvin's claim that science has united us all in the common pursuit of "conquering" nature, this is a singularly different thing from that human unity which he ecstatically visualizes. From this unity of effort competition can never be eliminated because of the object of strife—and the greater the unity the greater always must be the competition. Material rewards are always either yours or mine, and we will only unite to share them in order to obtain an advantage over a third competitor. Chaucer's Pardoner long ago knew all about this, and his story does not grow old or stale. The only sort of common effort which promotes human unity, in any significant sense of the phrase, is strife after a spiritual reward, which alone is not vitiated by vulgar competition—which alone may be shared by all men alike without dimming its lustre or lessening its value for each one. Here alone the strife is not against one's fellows, but against one's self.

Indeed, Mr. Marvin is himself strangely conscious that science has not accomplished what he is so anxious to claim for it. As he somewhat ambiguously puts it in a passage already quoted, "the unification of scientific theory has not had its counterpart in the unification of sentiments and aims in life." On one occasion he throws out a hint that this defect will be remedied when the "humane sciences," slower in developing than the mechanical ones, shall have attained their full growth. Whether through wisdom or accident, however, he nowhere develops this hint. Instead, he finally puts all his eggs into another basket. It might be supposed that in his recognition of a need for an "unification of sentiments and aims in life" Mr. Marvin, whatever else he may mean by this phrase, means also that he perceives man's real trouble to lie after all within himself. It might be supposed that here he inconsistently recognizes the necessity of a regimentation of men's desires, of a self-discipline resting upon discrimination between good and evil in human nature. Such a reasonable supposition would, however, be far distant from the truth. The truth is that Mr. Marvin does in the end implicitly abandon the whole case which he so laboriously builds up for progress through science; he does admit that the power or wealth made available by science is in itself at least a neutral thing, constantly being turned to "unsocial" uses; and he does admit that science provides no check upon the "unsocial" use of wealth.

Yet he still maintains that the goal of progressive society is a condition where each individual may freely satisfy to the utmost his natural desires, and he insists—rightly, of course—that for the attainment of such an aim physical science is supremely needful. He is confident, however, that material wealth can easily be turned to purely "social" uses, and he consequently makes the condition of progress and its direct agent—not science—but social sympathy. He speaks of the two as if they were inseparable partners, though he is not guilty of actually confounding them with each other. "Side by side with the growth of science," he says, "which is also the basis of the material prosperity and unification of the world, has come a steady deepening of human sympathy, and the extension of it to all weak and suffering things. . . . Science, founding a firm basis for the co-operation of mankind, goes widening down the centuries, and sympathy and pity bind the courses together." The general intention of such words, at least,

is plain enough; yet it takes no great amount of reflection to see, even from Mr. Marvin's admissions alone, that science and sympathy bear no organic relation to each other except that of enemies. Vivisection is a fair example of what happens when they meet on common ground. But if the spirit of theoretical science is one from which all feeling is rigidly banished, it may still be claimed that the purpose of applied science is humanitarian in nature. It exists only to serve human desires; but on the other hand it has grown only because it is profitable. "Exploit" would here be a more accurate word than "serve." The transparent disguise of humanitarian activity has been insisted upon just to render the personal profit respectable. And that humanity has not yet quite sunk below the uneasy feeling that personal profit is, after all, ignoble is proved by the general boast of scientists themselves that they never derive such profit from their discoveries, but leave that for other men.

Aside, however, from the friendly relation between science and sympathy which Mr. Marvin characteristically implies, he finds definite proof of the increase and spread of social sympathy in state regulation of the conditions of labor, and, even more, in such organizations as the Boy Scouts, the Girls' Friendly Society, and the Student Christian movement—analogue, apparently, to our Y. W. C. A. and Y. M. C. A. He says that "such bodies are very characteristic of recent times; they are largely religious in spirit, and their religion has certain common features. . . . They are without exception humanitarian in a definite and formative sense. They all train their members to believe, and to act in the belief, that the good of others is our own good also, that we develop our powers by such action, and that this in fact is the nature and genesis of all true progress in the world. . . . It should be clear to the student of history that this expansion of the essential and immemorial principle of all morality is on a wider scale and affects more sides of life than anything we have seen before. . . . This fact of triumphant association is indeed so indubitable and so impressive that we might be inclined to rest in it alone as sufficient evidence of the progress of humanity."

This throws light on Mr. Marvin's attempt, already noticed, to identify religion with humanitarian propaganda. Like other observers, he has been impressed with the altogether remarkable force often exerted by religion in reshaping and even in quite



remaking the life of the individual. This compelling sanction he covets for the new gospel of social sympathy, and he seems seriously to believe that by using the name he can secure the thing. Of that we must remain at least gravely doubtful. We do not now have any hopeful facts from which to judge; the only really successful instances of co-operation which can be pointed out are those which directly minister to self-interest. Plainly these are not examples of the working of sympathy. Nor is it easy to see how sympathy, often weak when it does exist and always an extremely capricious emotion quickly spent in proportion as it is violently felt, can ever be so deepened and extended—indeed fundamentally remade—as to form a positive and efficacious guiding principle for society. Like other emotions, too, sympathy demands a concrete object; it tends to become vague and unreal as its object is distant or abstract. A man is aroused to violent action at the sight of a dog or a horse being cruelly treated; the same man reads of the massacre of fifty thousand Armenians without, as we say, turning a hair. He may murmur to himself a few biting words, but he is not actually moved. Those Armenians are concrete objects, but they are distant. By so much the less, then, have we any reason to expect men to feel active sympathy for humanity at large. Even granting that this emotional *tour de force* should become sporadically possible, it takes only a slight knowledge of the world for realization that sympathy is blind and indiscriminate. The truth is that inculcation of social sympathy opens the way for much fine talk unaccompanied by action—for sheer sentimentalism—and thus it is certain of popularity; but it leaves the individual and society quite unchanged, and so effects no positive result except its encouragement to self-deception. However, it is to be wished that we would sometimes ask ourselves if, supposing a condition of universal brotherly love were attainable, this would be a desirable state. No one can answer this question completely, howsoever gifted with imagination, because none can definitely picture such a state of affairs. I shall not here make the attempt; yet a few things are plain. Such a society from its very nature would be soft, spineless, and poor. It would be poor both spiritually and materially; with easy-going nonchalance it would neither penalize the slothful nor reward the industrious. It would be completely indiscriminate in all its judgments, the ooze of fraternal sentiment blurring every outline

and swiftly unmaking painfully built up standards of character. Indeed it is difficult to resist the conclusion that the relapse to savagery would be swift and complete. These are strong statements, but I can see no ground for assuming that such a society would retain the institutions on which civilization has hitherto rested. It could not do so but, more than this, it would not wish to. Those institutions rest at every point upon the recognition of actual differences amongst men which it would be a chief purpose of completely humanitarian society to ignore. Thus the institutions upon which organized community life depends would inevitably vanish. Further, I can see no ground for assuming that such a society would preserve any characteristics not demonstrably necessitated by a condition of brotherly love, and savage tribes now exist in which the social bond is extraordinarily strong.<sup>3</sup> It is, however, important that we should not lose ourselves in necessarily vain dispute concerning the precise character of such a society, but that we should awaken to a realization of our almost total ignorance of the condition into which many "social reformers" of the present day would plunge us if they could.

Mr. Marvin, in a sentence already quoted, says that Darwin transferred the centre of our interest from the life of the individual to the growth of the species. This is likely to be long a source of confusion. We now talk in terms of the species and indulge in hazy visions of its growth, yet we continue to think and live as individuals. It has become the fashion, for instance, to regard society as an organism, a conception for which there is no justification in either science or reason, and one which lends a factitious interest to matters with which we can have no concern. Granting for the moment that Mr. Marvin's view of progress is sound, we can ourselves have no share in its fruition. We are but means to an end which is not realized in our own age or in the life of any individual. Yet so far as men take any active

<sup>3</sup> Not without interest here are some remarks in Kant's *Idea for a Universal History*, a treatise with which Mr. Marvin plays fast and loose in an effort to pretend that it fully supports his own views. Kant writes: "Without those, in themselves by no means lovely, qualities which set man in social opposition to man, so that each finds his selfish claims resisted by the selfishness of all the others, men would have lived on in an Arcadian shepherd life, in perfect harmony, contentment, and mutual love; but all their talents would forever have remained hidden and undeveloped. Thus, kindly as the sheep they tended, they would scarcely have given to their existence a greater value than that of their cattle." (The translation is Edward Caird's, *The Critical Philosophy of Kant*, vol. II, p. 550.)

interest in this supposed process they do so because they conceive themselves as partaking in its benefits. Thus Mr. Marvin's view encourages men to entertain hopes which have no possibility of fulfilment; and the hopes, concerning as they largely do material satisfactions, encourage men to blame others rather than themselves and their own notions of the world for their inevitable disappointments. The one concrete result of this mischievous confusion between two opposed view-points which is now discernible is a fairly successful attempt to undermine such freedom of the individual as has thus far been painfully attained.

Here, then, are some of the considerations facing an ardent believer in "the evolution of that collective human force which is growing and compassing the conquest of the world," in "a common human society, working together for the conquest of nature and the improvement of life." These considerations suggest that while change is a constant characteristic of our material circumstances, and that while exact science enormously accelerates such change, there is nothing in the nature of "progress" in the process. They suggest that we completely pay for everything which we seem to achieve, and that, in this sphere, after all our exertions we end where we have begun. They suggest that humanity's true line of activity lies inward, not outward, where effective exertion is more difficult but yet more hopeful. One can picture the commanding officers of that army for which Mr. Marvin speaks: eager, well-meaning men and women, honest and conscientious according to their lights, industrious, cheerful, with the fixed professional smile of the "community expert," with the perfect bedside manner of the fashionable practitioner, living consecrated lives for the good of society and the welfare of all, so intent upon their sacred purpose that they have never had time or inclination to reflect upon their fitness for their self-appointed task—have never had time to look within themselves and so to learn the eternal riddles of human nature. One envies them their brisk self-confidence, one does not for an instant doubt their many and unusual virtues, yet one still asks, can these be truly the vanguard of humanity?

# RELIGION AND PHILOSOPHY IN ANCIENT CHINA.

BY HARDIN T. MCCLELLAND.

(Concluded).

## IV. HUAI NAN TZU TO CHU FU TZU (C. 190 B. C. to 1200 A. D.)

**A**FTER the Burning of the Books there was an almost immediate repudiation of the Ch'in tactics and in 205 B. C. the first Emperor was slain and the Han dynasty was established. Huai Nan Tzu<sup>56</sup> was a grandson of the Duke of Han, but having no political ambitions he became a devotee of the mystic lore of Taoism, writing a series of 21 essays with the general title of *Ta Kuang Shih—History of the Great Enlightenment*. Herein are discussed matters of the utmost diversity: legends, dialogues, Cosmic Philosophy, magic, government, agriculture, alchemy and ethics. The work is a good example of the openminded interests of the age and serves as a ready introduction to the versatile achievements of the Han period whose scholarship, now remembered as unique in devotion to study, was sufficiently solid and profound to give lasting prestige to Chinese civilization.

It was about this time that Buddhist influence was beginning to reach China, and especially Huai Nan's legends of the moon's inhabitants closely fit in with what the traveller Pao P'o Tzu<sup>57</sup> and the nature-lovers Chang Heng and Tung Chung Shu

淮南子 卷之四 安  
<sup>56</sup> About 190-122 B. C. He was also called Liu An. The term Huai Nan, representing the fief conferred on him by Emperor Hsiao Wen, was another name for its location near Heng Shan, the southernmost of the five mountains to the west of the River Hsiang in modern Hunan. Metaphysics and the elixir-search were his forte.

抱朴子 卷之四 安  
<sup>57</sup> Also called Ko Hung, and lived about the first part of the fourth century A. D. Some say that Ko Hung was his true name and that he merely assumed the title of Pao P'o (Beloved Reconteur) for more or less obvious reasons while wandering in search of the elusive formula of immortality. At any rate it is established that he was a poor but precocious scholar who became Magistrate of Kou Lou (?), perhaps the island Kowloon near Hong-

soon afterward openly admitted as coming from the hymns of the Hindus. This tinge of Buddhism also accounts for his modern editor, Wu Chin Chuang (1788), saying that Huai Nan Tzu's attitude and general procedure in philosophy were comparable to that of his famous successor Yang Hsiung; but it seems to me that the latter is far more direct and reasonable in argument.

This thinker,<sup>58</sup> also known by his literary name Tzu Yün, was a native of Ch'eng Tu in Ssu Ch'uan and, being unfortunate in having a faulty manner of speech which gave cause for much cheap mockery by his companions, he early acquired the modest habit of quiet meditation and amiable reserve, noting very keenly however the tendency of surrounding events. In his youth he was a precocious student of the Odes and later on studied astrology, mathematics, and the humanities under Yen Tsum, the leading Yih scholar of the Shu tribe. His most notable literary work, called *Fa Yen*,<sup>59</sup> was composed not so much out of regard for the Confucian discourses as has been claimed, but rather in order to show up the insincerity of the anti-Buddhist "quoters" and substitute instead the plain and honest motives supplied in the Dharmapada and its *Eight-fold Path to Freedom*. This work, first written between the years 3 and 6 A. D., and now edited with both Duke Wen's and Tai Chen's very learned commentary remarks, contains

kong, but soon tired of such an uneventful life while dreaming that a certain potion of cinnabar roots and pheasant claws constituted the elixir of life. It is said that he finally, at the age of 81, had a strange vision of being carried off to heaven like an Elijah, and immediately set to work, even at one sitting (?), supposedly before he should be carried away, and composed the reminiscences of his travels and experiences, dreams and hallucinations in a work called *Lives of the Immortals*. In this romantic work, however, he does seem to anticipate many of our modern theories regarding the tides, the origin of the moon, earthquakes, etc. One of the immortals here chronicled was Tung Chung Shu, above mentioned, a native of Kiangtu who became a minister under Emperor Wu Ti in the second century B. C. Pao P'o's account says that he was a most diligent student, pulling down the shade and never looking out the window for three years, whence he became a Hanlin doctor and a recognized authority on the "Spring and Autumn", both Confucianism and Taoism, and an able interpreter of the strange phenomena of Nature. He was thus a contemporary of Huai Nan Tzu.

**揚雄子** <sup>58</sup> Lived about 53 B. C.-18 A. D. Tai Chen's critical edition asserts many items of classical learning in contradiction to the claims of the Sung philosophers. It was first published about 1760 and is revised and enlarged with the Sung versions in a new edition (1893) of which I have a copy.

**法言** <sup>59</sup> A title which may mean either "Exemplary Words", "Legal Expressions" or "Meaning of Law". In view of the Buddhist temper of a great deal of Yang Hsiung's thought, I have favored the latter interpretation in a translation which I am now preparing.

13 sections dealing respectively with learning and conduct, our teacher Confucius, personal culture, inquiry into Taoism, inquiry into the supernatural, inquiry into intelligence, the rarity of clear-sighted observation, everybody in general, ancient wisdom, importance of improving the people, Yen Tzu, the princely man, and filial piety.

With a sense of eclectic moderation Yang Hsiung diverged from Hsün Tzu's premise of human depravity by insisting that the nature of man at birth is neither good nor bad, but partly both; and that, depending on environment and the sort of character we choose to develop, our lives become subject to the old adage "as the twig is bent so's the tree inclined." We have innate propensities for both good and evil deeds, and it is the function of intelligence to see that conduct has the proper expedient and that virtue is the more durable economy of life. Laws are intended as restraints on the one and aids to the other. One of the principal conclusions to be drawn from Yang's theory of Law is that God is not the creator of all things; so far as listening to human whims and wishes is concerned He is a fainéant Deity indeed, although as a resolute Judge and Sustainer of the Cosmos He is the active guiding force which keeps the ten-thousand-things in their proper order. Section 4 is especially good as an elucidation of Lao Tzu's original conception of T'ien as God, and Tao as the Reason which is the root of all intelligence both human and divine.

Closely following Yang Hsiung's influence as an eclectic of all the then existing philosophical hypotheses, comes the "prince of abundance" Wang Ch'ung,<sup>60</sup> one of the most able exponents of the I-Tuan or heterodox teachings. He was the author of the so-called *Animadversions, Lun Heng, or Critical Essays* (84 are now extant) on the most various of subjects all the way from considerations of God and the First Cause down to bodily vitality and how to be superior to the vicissitudes of life. In these discourses he adversely criticized Confucius and Mencius, blaming them for blinding men's eyes to the actual situation which makes ethics a daily necessity. He assailed the contemporary fashion of bigotry and threw panic into the camps of those whose orthodoxy was a mere policy, using always such exact and clear notes of opposition

王充子

<sup>60</sup> About 27-97 A. D. Dr. Anton Forke has translated the *Lun Heng* into English, 2 vols.: Vol. I, *Philosophical Essays*, and Vol. II, *Miscellaneous Essays*; Berlin, 1911. See note 13.

that he is even to this day ranked along with Chu Tzu as one of the leading heterodox philosophers.

Like Yang Hsiung he emphasized the point, that it is the *manner of birth*, rather than mere heritage, which decides what proportion of good and bad there is in our nature, and that all that we do subsequently is no more than a development or exaggeration of whichever way the proportion happens to stand. A man with an evil disposition does nothing noble or benevolent even when in the most fortunate circumstances, and a man of noble character will do nothing mean even when such a course seems expedient. The only spiritual heritage at birth is bound up in the strength of pulse and the warmth of blood derived from our parents.

Likewise also, not a little knowledge of physiology seems to have given color to his notions about immortality, for we find him making an argument that a vital fluid, residing in the blood and, although not spiritual, yet sufficiently immaterial to survive the body's death, passes throughout all parts of the body (a clear anticipation here of Dr. Harvey's great discovery). This fluid and the body it animates are, we are told, mutually dependent for their proper functions and for the very (incarnate) life which those functions help to maintain. Thus, when the body fails at death, the fluid has no organ by which it may be sustained and its continued circulation secured, and accordingly the fatal rupture of their dual harmony renders negative any prospect of a personal immortality—that is, no manner of continuity in the form of life known as physical. In this way then, Wang Ch'ung denied earthly immortality, holding the reservation however that the Vitality (a material sort of spirituality) of the first natal conception is reclaimed at death by the world's First Cause, of which it is a part. While, as at birth, the individual soul or spark of vitality is indirectly derived from this First Cause for the sake of some certain desired accomplishment, so too at death it returns to its original source so that no part of the divine shall ever be lost. The body *per se* is of the earth earthy and remains so whether living or dead.

In this connection he further points out that God (the impersonal, vague and formless First Cause) has no direct power over the length of life of good and bad men, because this is a matter not of the divine but of the natural order; it is a physical not a metaphysical affair. It is for this very reason also that the so-called Divine Will cannot be discovered through divination, and proves secondarily that God is not, as cunning men pretend, so intimate

with nor condescending to the vanity of human wishes. These are some of the arguments by which Wang Ch'ung sought constantly and valiantly to free the Chinese religious mind from its slavery to tradition and futile ceremonials. He made a very able philosophical attempt to overthrow the anthropomorphic theism which had sapped the otherwise reverent intelligence of the sages, the manmade religion fostered by Confucius and put into such a bathos of intimacy by Wang's presumptuous critic of the third century, Ch'in Mi. And far above all vulgar or self-serving forms of worship, it was at the same time a failing yet worthy attempt to preserve the attitude, so highly representative of all honest religious conceptions, that God is our souls' most cherished original as well as our thirsting spirits' goal.

Buddhist writings were first officially introduced into China during the reign of Emperor Ming of the Later Han dynasty (c. 200 A. D.), although there had been numerous accounts of travellers both native and Indian for four or five centuries before this time which told more or less truthfully the deeds and doctrines of Buddha and the encouraging legends of Maitreya. The organized effort to carry on officially recognized propaganda did not mature, however, until (in 405) the 19th western patriarch of Buddhism, Kumarajiva,<sup>61</sup> became state preceptor at the court of Yao Hsing of the eastern Chin dynasty. Among his indefatigable labors as linguist, tutor, philosopher, and interpreter of religious exaltation he either translated or caused to be translated the metaphysical appendices of the Tripitika and the Prajna Paramita (Wisdom's Highest Sublimation), a profound treatise on the Mahayana. Such a work, it appears, was a little precocious in view of the fact that Sanga Pala (c. 506) had not yet introduced his scheme for transliterating Sanskrit words into Chinese and Wang Tung had not yet clarified the Chinese ethical atmosphere with his Discursive Opinions (Shen Shuo, c. 614). Nevertheless there were a few educated Chinese who were sufficiently openminded and aspirant

羅什 <sup>61</sup> Is the Chinese (Cantonese) pronunciation of the third and fourth syllables of his name and are said to mean "Young in years but old in virtue" or "Pliable but well-seasoned". He was about 40 years of age at this time and died in 412, seven years later. This famous Hindu devotee of the Mahayana, now called one of the "Four Suns of Buddhism", not only translated Indian works into Chinese, but found time and talent to compose also in his newly adopted language. One of such writings is called Shih Hsiang Lun "Discourses on Reality and Appearance",—not a few points therein anticipate Francis Bradley's work of 20 years ago.



to relish if not understand the ultra-Confucian conceptions which it contained, one for example being that of the *akänishta*, the 18th and last heaven in the Mahayana cosmogony, pictured as the ultimate goal of sentient desire and "a place where all the needs and aims and experiences of the human soul are sifted to the bottom to prove the degree of our spiritual purity."

Hence, by the time of Han Yü or Han Wen Kung,<sup>62</sup> Buddhism had obtained a strong foothold in Chinese religious life, and thrusting aside the contention between Confucianism and Taoism, it was seeking to lead a middle way neither contra-ceremonial nor anti-mystic. At least it had so far succeeded in becoming a fixed faith that the "Literary Duke" Han was banished from his native state merely for having exhorted the people to "give up this new spoilment of heart," and return to the simplicity and substantial wisdom of the ancients. Realizing in more ways than one the story that he carried his studies far into the night by "burning candles to lengthen the shadow on the dial", he gave constant voice to the belief that the energy of life cannot be destroyed, but continues in various forms of both bodily and spiritual (i. e., disembodied) expression. It cannot abruptly cease functioning with the event of death, else there would be no disembodied spirits of past sages that care for the virtuous nor any as yet unborn spirits who, anxious for our welfare, await an opportune time to come back into the world and help in the proper guidance of the State.

It was a strictly spiritual economy which Han Yü brought to the rule of human life. Even departed spirits are often reincarnated to carry on the purposes for which their former life was inadequate; no moral distinction is found governing their immortality, because we find both good and evil spirits at work in the world. Even though the disembodied spirits have no form, color, sound or weight by which we can be sensitive of them, yet they make their reality manifest by either contributing to or detracting from the happiness of mankind, the good carrying on the benevolent office of making our sacrifices sufficient and acceptable to the divine patronage which is proven in our daily blessings of health, long life, prosperity and peace.

It was then one of the ironies of fate that he was banished

・韓文公 <sup>62</sup> About 768-824 A. D., a poet, statesman and "orthodox" (i. e. Confucian) philosopher of the latter part of the T'ang dynasty. His friend Tsung Yüan (773-819 A. D.) had been a Secretary of the Board of Rites before banishment, and this made Han Yü that much more stringent upon his Buddhist heresy.

to the same barbarous region (Liu Chou in Kuangsi) that his subsequent friend Tsung Yüan had been banished to as governor. The latter was an able devotee of Buddhism, a poet, essayist and expert calligrapher. He was thoroughly set against the ephemeral glory of worldly power and prestige, but owing to the vast misery, injustice and misfit conditions in the world, he thought there was not enough evidence to warrant our belief in God. Han Yü was greatly surprised at the double heresy and in a friendly but by no means temporizing way rebuked him for it.

Han Yü is also a noteworthy name in the history of Chinese philosophy on account of his having developed another phase to the problem of human nature. His position however is somewhat of a take-off from Yang Hsiung's theory, in that he considers man's nature, both at birth and for the whole course of subsequent life, to be presented in three different degrees of moral suasion, whence the individual point d'appui may be either good, formative, or perverse when valued according to the ethics of their respective performances. Thus both Mencius and Hsün Tzu are once more criticized for partiality while an attempt is made to establish a more philosophical ground and middle course of conduct.

The Sung dynasty which ruled the north and south of China from 960 to 1278 marks was, even more than the Han, the high tide of eclectic scholarship. It was an age when clever and subtle commentators put Confucianism again in the ascendent, when historical research was the popular hobby and criticism enjoyed a patronage unknown in any previous age. It was during the fertile years of this long period that the Yih philosophy was given new and more virile exposition, that many doubtful points of classical literature were cleared up, and the psychology of thought and personality was first established as a department in philosophy. The achievements of this era were no mere rechauffe of what previous scholars had done; they were in practically every sphere of intellectual activity totally new departures and, being accomplished in view of the wider range of vision and piety, may also be considered a new departure in cultural devotion.

This memorable period had four leaders of thought whose work seems to have been pivotal to the whole course of Chinese religion and philosophy from that day to this. The first of these scholars was Chou Tun-I,<sup>63</sup> supposed to be a direct lineal descendant

of Duke Chou, but at any rate a man of the most varied and profound learning, an achievement for which he was canonized as Tao Kuo Kung or Prince in the Empire of Reason. That he deserved this posthumous honor is most clearly evident in the contents of one of his compiled works entitled *T'ung Shu* or *Book of Generalities*, a sort of encyclopedia of all matters dealing with the better understanding of Nature and the Yih hypothesis. It was a companion volume to his other great extant work on the proper interpretation of cosmogony called the *Design of the Supreme Origin* in which he brings rational processes of thought to bear on the numerous and conflicting theories regarding Reality, Life and the universal principles of nature. These two works constitute the second and first chapters of Yung Lo's encyclopedia of Sung metaphysics published in 1415 under the title Hsing Li Ta Ch'uan.<sup>64</sup>

The title of this encyclopedia recalls that the philosophers of Chou's time were beginning to wax hot over which was the more fundamental principle Li or Hsing, Reason or Natural Essence. And it seems that the unique distinction of Chou was that he harmonized the two factions by his assurance that Reason is the cause while Nature is the means by which the Reality in the universe becomes manifest; Li serves as intelligent purpose while Hsing serves as practical method of realization, but both are inferior to the Infinite which functions as a sort of impersonal God. He then explains in not very clear language that the Infinite is the Supreme Principle, the Great Origin of all things.<sup>65</sup> The Great Principle moves and produces Yang (the male principle); finishing this motion the Great Principle takes a rest. While resting it produces Yin (the female principle), whence having completed the purpose of its rest it again moves, thus alternating male and female, positive and negative proportions. This is an endless process going on indefinitely and, being accomplished on an infinite scale, serves to maintain the equilibrium of the Cosmos, producing fire and wood (Yang), water and metal (Yin) at their proper periods. Heaven is active in that it is the scene or domain of the cause, while earth (both as globe and element) is passive or neutral in that it is the domain of effect. Though all this is an endless procedure for the sake of cosmic maintenance, it is yet the Great Extreme or Supreme

<sup>64</sup> This phrase is the main title and the first two chapter titles of the encyclopedia "*Complete Rationale of Natural Dispositions*".

性理大傳太極圖  
通書

<sup>65</sup> 無極是太極大原

Principle in that nothing else is necessary. It is the *ne plus ultra* or all reality and life in the Universe.

Posthumous honor is also reflected upon Chou for having been the chief instructor of those famous brothers, Ch'eng Hao and Ch'eng I.<sup>66</sup> He seems to have received this commission through his friendship for their uncle, Chang Tsai, whose Buddhist and Taoist syncretism found expression in a formal treatise, called *Cheng Meng*, on the origin of the universe. The elder brother, Ch'eng Hao, soon retired from official life to a place called Kun Lo, where he found leisure to write the *Ting Hsin Shu*,<sup>67</sup> or *Book of Fixed Purposes*, while also using his influence as a Confucian expositor in resistance to the irreverent theories and radical innovations of Wang An Shih.<sup>68</sup> The younger brother, Ch'eng I, was a critical thinker fully the equal of Wang Ch'ung, and devoted practically all of his life to revising and explaining doubtful questions relating to the classics, especially the *Yih King*. While he was of an even more retiring nature than his brother, yet late in life he was persuaded to take office and, with this aid of his talented pupil, Kuei Shan Tzu,<sup>69</sup> succeeded in bringing Wang An Shih into disfavor and final disgrace. Before this final denouement when Wang An Shih had been urging men to do away with the sentimental scruples which so often retarded an otherwise economically supported government, his special target was the age-old custom of prizing benevolence and sympathy above all else of material welfare to the State. But Ch'eng Hao came to its rescue with the ably argued thesis that "Fellow-feeling and the equitable relation of one being toward another is the norm of the universe. If this norm is anywhere destroyed there ensues much lawlessness and discord."<sup>70</sup>

<sup>66</sup> Lived 1032-1085 and 1033-1107 respectively. 程顥程頤二師 The elder brother is often called Ming Tao, "Illustrious Reasoner" and Shun Kung, "Unspotted Prince"; while the younger brother is sometimes called by his posthumous title, Cheng Kung, "Prince of Rectitude".

定心書 <sup>67</sup> Many of its arguments seem to be veiled refutations of his uncle's book, especially its Buddhist features. Chang Tsai (1020-1076), however, carried his points over to Chu Tzu.

王安石 <sup>68</sup> 1021-1086, was nominally a socialist-minded man, but has the native reputation for being a very irreverent and radically unscrupulous official. However, cp. Dr. H. H. Gowen's articles in the *Open Court* for Dec. 1913 and Jan. 1914.

毛山子 <sup>69</sup> Also called Yang Shih, a native of Fukien, 1053-1135.

仁者天下之正理。  
<sup>70</sup> 失正理則無序而不和

The man, however, who took the whole panorama of past civilization in from one grand universal viewpoint was Chu Hsi or Chu Fu Tzu,<sup>71</sup> the eclipsing follower of Chou-Tun-I, who was destined to become famous as one of the foremost interpreters both pro and con of the Confucian Canon. With a keen philosophical insight he saw the limitations that were fettering the customary religious and philosophical notions of his contemporaries: so he boldly turned their anthropomorphic god into an eternal principle, one which was intrinsic and spontaneous, the ultimate law and sacred providence of the Universe. Thus he courageously departed from the finite and worldly God-conception of the Odes,<sup>72</sup> and held instead that Li the great colorless, immaterial, governing principle of the Cosmos is God. No more the personal whim-satisfying deity of antiquity, who was now shown to be but a mere abstraction of human passions and characteristics, but God who had more to do with maintaining the universal order and guiding the destiny of things than with serving the petty desires and ambitions of human beings.

Chu Tzu was thus not so much atheistic as anti-theistic: he did not deny God's existence as an actual and determinable power in the affairs of the world, but he did deny and make heroic efforts to refute the man-made theism of the less philosophical Confucianists and Hinyana Buddhists. His doctrine of the deity thus harkened back to Lao Tzu's Tao, the principle of Reason and Righteousness in the Universe, which is manifested on earth as the forward evolution of life and the upward aspiration of virtue. His Li principle is hence no more than Tao or T'ai Kih, only it is put forth in a new development and a more up-to-date and illustrative manner of exposition. It might even be said that T'ien, Tao, T'ai Kih, and even Shang Ti (the Supreme Ruler) are but terms of equal potential which serve to express the immaterial principle (Li) which governs the motions of heaven, the earth, men, ani-

朱夫子

<sup>71</sup> Lived 1130-1200. See my article, *Open Court*, March, '21.

<sup>72</sup> Cf. notes 11 and 32. Even so great a critic as Tai Chen (1722-1777), the Imperial Librarian under the exacting Ch'ien Lung, even tho opposed to Chu Tzu's non-Confucian Mahayana sympathies when he wrote his essays on the Odes, yet acknowledged in his treatise on astronomy and the Yih calculus that Chu's attack on the man-made pantheon of the Odes was justified from a philosophical viewpoint. See also note 82.

mals, and all inanimate things.<sup>73</sup> And while thus governing the Universe in all justice and rectitude of law, it was yet not to be known by tangible definition, verbal predication or any other form of finite comprehension; human intelligence being capable only of witnessing its operation in and power over all the things of earth and sky.

Accordingly then, we find that Chu Tzu was not at all content with Confucius' and Mencius' dictum that we should accept unquestioningly the apparent conditions of existence as set upon us by heaven and earth. On the other hand, he sought with tireless energy a more reasonable answer to life's riddle; in the Yih King he proposed to find the secret of the cosmic structure and thereon to establish a systematic theory of rational cosmogony; in his own political treatise entitled Chin Ssu Lu<sup>74</sup> he tried to harmonize and simplify the popular digressions in governmental policy—one dealt with heaven, the other with earth and man.

His system from the standpoint of the one was drawn up on the following theses: Primary matter (ch'i), though subtle and ethereal, is yet passive and determinable; it is the receiver of the immaterial principle (li) which is eternal and intangible but yet requires matter for its place of manifestation and the organic means of its functioning. Though this principle is to be known, not through the sense-channels of ordinary empirical knowledge, but through the inductive interpretation<sup>75</sup> afforded by the Yih phi-

**理治萬物** <sup>73</sup> Chu Tzu's theory of the relative position and importance of these terms in metaphysics is presented in his commentary edition of Chou Tun—1's "T'ai Kih T'u—Design of the Supreme Origin".

**經畧** <sup>74</sup> Meaning "A Resumé of Recent Thoughts (on public affairs)". It was published about 1179 thru the influence and under the supervision of his friend and advisor, the historian Lü Tsu-Ch'ien popularly called Tung Lai Tzu (1137-1181) who wrote a history of the Sung period as well as critical commentaries on the Odes and the Yih which defended Chu's position.

<sup>75</sup> That the whole system of the Yih is an inductive calculus of natural phenomena is a proposition which has often been contested by both native and western scholars, especially those who prefer to value it from the standpoint of mythology, political history, or romantic anagoge. But as a simple hypothesis of cosmogony from a First Cause down thru derivative media to the multiple functions of the ten-thousand-things, it is really the reverse expression of what was the original process of thought. From any certain set of experiences or collection of data we always work back inductively toward the general principle or source before we turn around and claim to derive all the multiple functions from the original one. The Yang and Yin dualism of the Yih long anticipated the binary system of Leibnitz; its cryptic geology and meteorology arranged according to the 384 days of the lunar year inspired Dr. Reidel's *almanac* interpretation; and its synonymizing of

losophy, yet it is for man not only to be exemplified negatively in the mere animation of his physical life, but positively also in the striving of his mind and heart after truth and goodness. This truth and goodness should properly be conceived and valued as equal to the Li itself, especially when we look upon the function of the latter as proving an eternal and perfect power of justice whose benevolence is a real existent in the Universe, whence the Li become the lofty model of our conduct even though we do not often find it clothed in the worldly robes of a material habitation. There is only one thing which we can consider second in importance to the Li, and that is Ch'i the subtile primary matter, also called the aether, breath or spirit of organic life. Chu is thence very eager to point out its lieutenantancy under direction of the Li by often remarking words to the effect that: "There is in the Universe a subtile aura which permeates all things and makes them what they are. Below it is shaped forth as land and water: above as sun, moon and stars. In man it is called spirit, and there is nowhere that it is not. Therefore you cannot distinguish what is existent from what is not existent in the Universe without first looking for the Ch'i and then for the Li which controls it. These two are the substance, the form and the principle of life; before heaven and earth they were, and after heaven and earth they shall survive."

Chu Tzu had a county home at Wu I amongst the hills of north Fukien, where he had many friendly bouts with Lu Tzu<sup>76</sup> on questions of education and philosophy. It was here that he wrote (c. 1172) his famous synopsis<sup>77</sup> of Ssu Ma Kuang's great historical

certain metonymous words with stroke-count symbols indeed affords a very complex lexicograph, showing that Zottoli and Lacouperie make far-fetched assumptions. It is most appropriately called a "universal book" in Chou Tun-I's analysis and Yung Lo's "Rationale of Natural Dispositions" (see note 66). Cf. note 25.

**陸九淵** <sup>76</sup> Is Lu Tzu's full name (Lu Chiu Yüan, 1140-1192), a native of Chin Ch'i in Fukien. He became governor of Ching Men in Hupeh about 1190, serving until he died two years later. Before this he had a country seat at Hsiang Shan (Elephant Mountain) not far from where Chu Tzu lived, hence he is known in literature by this home name, his collected writings being called Hsiang Shan Chi. He was a great controversialist and friendly opponent of Chu Tzu, teaching and writing on philosophy and education. His general theory in the latter subject was that all the paraphernalia and expense of external education are practically useless and can be readily dispensed with, while self-control and the development of one's personality (largely thru introspection and meditation, physical exercise and useful work) constitute the proper and only efficient means of true education.

**通鑑綱目** <sup>77</sup> Tung Chien Kang Mu—"Universal Mirror (of history) in General Outline". Shih Tzu of Mei Shan (latter part of the eleventh century) was also a learned commentator

work covering all antiquity down to the Sung dynasty. He also had a meditative retreat at the White Deer Grotto near Po Yang lake (where the 17th century philosopher Wei Hsi founded a school), where he wrote the *Hsiao Hsüeh, Little Learning or Juvenile Instructor*,<sup>78</sup> and where he is said to have "taken rest after arguing three days and nights with Chang Ch'ih<sup>79</sup> over the ethics and ritualism of the *Chung Yung*." But taking his just and exemplary record in official life as evidence, we can hardly think that he had any adverse motive in criticizing or reforming the Confucianism of his day. Even with all their Buddhist sympathies his efforts were far more successful both politically and philosophically than the attempt 30 years ago of his proud emulator, the Kuangtung scholar, Kang Yu Wei who, under the pseudonym of Chang Su sought to give the impression that he was superior to Confucius. At least Chu Tzu's position<sup>80</sup> in this regard is quite

on Ssu Ma Kuang's Mirror. I recently learn that the Newberry Library at Chicago, thru the Wing Foundation, has come into possession of a complete copy of both the Mirror and Chu's Synopsis.

**小學集註** <sup>78</sup>This is the title of my Copy in two volumes published by royal decree in Dec. 1908. The preface explains that Sheng Tsu Jen, the second Manchu Emperor, left a will expressing the desire for a new edition of Chu Tzu's book. Accordingly his successor, Yung Cheng the third Emperor, caused a new critical edition to be published in Dec. 1728 in one volume quarto. The present edition is a reprint in two volumes octavo. The last commentary note to the original preface says that Chu Tzu wrote this work in 1177 at a conservatory or studio called Hui An, whence he derived his *hao* name. This preface also explains that Chu Tzu is seeking to fill the gap between childhood's need of proper guidance and maturity's introduction to the "Great Learning"; and that his arguments are based on the six classics, the four philosophers (Confucius, Mencius, Tzu Ssu and Ts'eng Tzu), and the Sung conception of Hsing Li, or "individual nature-principle",—whence all the writings of his predecessors are to be valued as the progressive steps of a ladder leading up to wisdom and virtue. (Vol. I) Book 1 analyzes the education of boys and girls; book 2 explains the five ethical relations (between parents and children, ruler and officials, man and wife, old and young, and between friends); book 3 encourages respect for one's person, including proper care as to one's mind, conduct, clothes and food; book 4 considers wisdom and virtue as exemplified under the four great dynasties of antiquity (Shun, Hsia, Shang and Chou, c. 2255-255 B. C.). (Vol. II) Outward applications of these principles in (Book 5) good words, including both opinions and viewpoints, and in (Book 6) good deeds, including both practical and exemplary or heroic conduct. Pluquet's French translation of 1784 has been out of print long since.

**張栻** <sup>79</sup>A classical commentator of Ssu Ch'uan, also called Nan Hsien Tzu, a friendly opponent of Chu Tzu, lived c. 1133-81.

<sup>80</sup>Probably what may be called the actual situation of Chu's revision of the Confucian code is presented in two works by a thirteenth century scholar who can hardly be said to have favored his syncretist efforts. This scholar was Weng Meng-Te, author of the Yao Lun



effectually vindicated in an expository work, reputed to have been from his own hand, but published posthumously (c. 1270), entitled *Chu Tzu Yu Wei—A Defense of Chu Tzu's Discourses*.

(Critical Discourses) and the Chih Shih (Gathered Fruits). A defense of the classical attitude of both Ch'eng I and Chu Tzu, but an opposition to their mathematical and scientific theories, has been made by Yao Nai the famous Hanlin president, teacher of philosophy, and editor of original Taoism in Ch'ien Lung's encyclopedia. He tells us that Hsing Li as a term for psychology and metaphysical hypothesis in philosophical speculations, was first used by Ch'en Shun 1151-1216, a disciple of Chu Tzu. In this he is borne out by his famous contemporary, the Yih scholar Wu Ting (1728-1800) compiler of the textbook *Po Yih Hsiang Chi Shuo* (Variorum Commentary on the Yih Symbols) which embraced the different viewpoints and arguments, with commentary notes, of ten philosophers of the Sung Yüan and Ming periods.

## THE NEW RELIGION.

BY CURTIS W. REESE.

**S**IGNIFICANT and unmistakable signs appear in increasing number on the widening horizon of the religious life. In content, outlook, and purpose religion is undergoing basic reconstruction. The chief and avowed purpose of religion is coming to be the building of personality and the shaping of institutions to this end. Consequently the terminology of the pulpit is changing. The nomenclature of supernaturalism, which connotes the submission rather than the expansion of personality, is found to be utterly inadequate to express and serve the new religion. Everywhere are to be found sermons, prayers and benedictions couched in the language of science, psychology and social well being. Temples, synagogues, and churches are examining their technical equipment and practice. Methods of organization and execution long familiar in the business world are being found effective in institutional religious procedure. Religion is being organized for greater human usefulness. The institutions of religion are forging their way into positions of social, moral and spiritual leadership, where they rightfully belong. In my opinion the world can never get along without religion, but it wants a religion whose impulses, worths, and ideals are suitable to the needs of the new age. The word "religion" remains, but its content is changing.

A word is a symbol of reality. This is true whether the reality be a perceptual fact or a conceptual theory. When reality changes, clear thinking requires that the old symbol be exchanged for another or that the change in content be clearly recorded. When a word symbolizes a movement with continuity of problem and of attempt at solution, the familiar symbol should be kept and its changed meaning recorded. Psychology is a case in point. Once psychology was the name of the science that dealt with the *soul*;

later of the science that dealt with *mental faculties*; then of the science that dealt with *states of consciousness*; and now psychology is the name of the science that deals with *behavior*. The old symbol still holds. Much more should this be true when the symbol is weighted with sacred associations and memories. Religion is a symbol which not only has continuity of problem and of attempt at solution but which is also surrounded with the most hallowed associations and memories. *Religion symbolizes the human attempt to come to terms with life*. This effort, whatever its content and object, is man's religion. This was true of the early attempts of man to relate himself to those instrumentalities and values that seemed to have significance for the welfare of the group, and it is true of later attempts to placate the personal gods in order to gain personal peace. While the content of religion has undergone a marked revolution we shall retain the term religion. My chief purpose, however, is not to justify the word but to record the modern change in its content.

The common denominator of the old religions is found in *man's response* to superhuman sources of fortune. This belief in and relation with superhuman sources of fortune is characteristic of the old religions. Without this psychological situation the old faiths cannot admit the religious validity of any human behavior. Hence the old religions have resulted in a servile psychological attitude.

This pathetic and tragic outcome of the old religions is now somewhat relieved by the new religion which is gradually growing into consciousness. Everywhere modern thinkers are finding the content of religion in human worths and its cosmic significance in man's co-operation with and control of the processes of life to the end that human impulses shall be completely realized. This new religion aims at the conscious experience of the fullness of life. It regards this as the aim and end of religion and of all social instrumentalities. In other words, the new religion stands for the complete and permanent satisfactions of the human life.

The object of the old religion is the superhuman unknown and the chief content of the old religion is the sentiment entertained toward the superhuman unknown. The object of the new religion is *life*, and its chief content is *loyalty* to life. In the old religion right and wrong are defined in terms of conformity to standards extrinsic to human life, in the new, right and wrong

are defined in terms of consequence to human life. The old religion is characterized by trust and receptivity, the new by aspiration and creativity.

The new religion may or may not have a theology but it needs a science of worths and values. Whatever theological significance is inferred from or attached to the new religion is functional, tentative, secondary. The old religion judges man by his contribution to the gods; the new religion judges the gods by their contribution to man. In the old religion theological beliefs are central and imperative; in the new religion theological theories are types of "spiritual short hand." In the old religion a theological revolution is spiritual treason, in the new religion a theological revolution is a change of mental attitude, a shifting of postulates, a minor part of the day's work.

According to the old view religion without superhuman objects of faith is impossible. But if religion according to the new view is the orientation of man to his values, the broadening of perspective, committal to concrete worths, manifestly theological convictions and philosophies of the ultimate nature of the universe are not prerequisite to the religious life. Religion is not constituted of theology or philosophy or metaphysics,—but it may use them as instruments in the enhancement of human life. Man may be utterly void of theology and yet be deeply religious.

In the theocentric world of the prescientific days man wanted super powers or beings whom he could placate and so secure special agency. But science has discredited special agency. It has found the universe to be a self-operating system. It finds ordinary cosmic events and processes routine and impersonal, and other things cared for by highly specialized parts of nature such as man. It regards order and purposes as self-existent. Reality is found, but its ultimate nature is not yet determined. Man's whole world outlook is vastly different from what it once was and it is still subject to change. Hence the new religion does not regard the acceptance of any philosophical hypothesis as religiously necessary.

Yet the new religion does need a science of worths and values. Such a science must be evolved through long experimentation, and must be radically humanistic—founded on human experience, true to human desires, and subject to human observance and control.

The new religion regards all the human impulses as valid and worthwhile and it seeks the complete realization of them all. Com-

plete permanent satisfaction of the human impulses is the aim of the new religion. There is no question of higher and lower impulses. None are mean and unclean. All are good and sacred. The new religion proclaims the democracy of the human impulses. Conflicts in the impulsive life are abnormalities due to the misunderstanding and misuse of the impulses. The well balanced, fully developed, and intelligently controlled impulsive life is the full life. Of all the needs of the race the greatest are for freedom from repression and oppression, and for committal to the fullest possible realization of life on the widest possible human plane.

The new religion is bound up with the full life. It is intimately concerned with all social instrumentalities; with education and politics, with science and art, with industries and homes. It seeks not only to interpret these but to guide them. It aims to see the social life in its fullness and to direct all social instruments and powers to the ends of human life, and to create new instruments and powers of life. The new religion regards the whole sweep of life—the sex life, the political life, the economic life—as within its province. It regards the whole world order as a religious order. The whole of life goes up or down together and none of it is foreign to religion.

*Consecration to science is religious consecration, works of art are religious works, governmental achievements are religious achievements, social relationships are religious relationships, and moral victories are religious victories!*

The new religion will use existing church organizations and machinery so far as they lend themselves to its purposes. It will reconstruct them where and when reconstruction is found necessary. And it will create new organizations and machinery as the needs demand. It will completely overhaul the forms of public religious service. It will make these forms re-enforce the forward-looking, creative tendencies of the participants and inhibit the backward-looking, imitative, dependent tendencies. The readings, hymns, prayers and benedictions will embody the contemporary values, interpret emerging goals, satisfy the intellect, and stir the social emotions. Where the symbols and imagery of the old rituals re-enforce credulity and dependence the symbols and imagery of the new ritual will re-enforce courage and imagination. The new ritual will not be less lyrical than the old but it will contribute more to the unification of experience. It will not be less reverent but

more inspirational. It will embody in its content not a world of caprice but a world of order. It will synthesize life and give dynamic and purpose to the whole of life. It will weave into the fibres of spiritual devotion all that is native to life.

In its wider significance, understood as loyalty to life and re-enforced with modern imagery, religion shall become man's supreme concern!

# EVOLUTIONARY NATURALISM

BY

ROY WOOD SELLARS, Ph. D.

UNIVERSITY OF MICHIGAN

350 pp., Cloth, Price \$2.50

"The aim of the present investigation is to work out in a systematic fashion the possibility of an adequate naturalism. Evolutionary Naturalism does not sink man back into nature; it acknowledges all that is unique in him and vibrates as sensitively as idealism to his aspirations and passions. But the naturalist is skeptical of any central, brooding will which has planned it all. The Good is not the sun of things from which the world of things get their warmth and inspiration. The cosmos is and has its determinate nature. As man values himself and his works, he may rightly assign value to the universe which is made of stuff which has the potential power to raise itself to self-consciousness in him."

\* \* \* \* \*  
"Let man place his hope in those powers which raise him above the level of the ordinary causal nexus. It is in himself that he must trust. If his foolishness and his passions exceed his sanity and intelligence, he will make shipwreck of his opportunity."

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO, ILLINOIS

# PARACELSUS

HIS PERSONALITY AND INFLUENCE AS A PHYSICIAN,  
CHEMIST AND REFORMER

By JOHN MAXSON STILLMAN

*Emeritus Professor of Chemistry, Stanford University*

Cloth, \$2.00

Theophrastus Bombastus von Hohenheim, called Paracelsus, is one of the important although little known originators of scientific method in surgery and chemistry. His lifetime fell in the period (1493-1541) of the most fertile intellectual activity of the Renaissance, which was due largely to the invention of printing by movable types and the remarkable development of universities both in number and teaching.

During the last thirty years scholarly research has been notably directed to the reinvestigation of the early history of scientific thought.

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

# The Belief in God and Immortality

By

JAMES H. LEUBA

Professor of Psychology in Bryn Mawr College  
Author of "A Psychological Study of Religion"

Cloth, Price \$2.50.

This book consists of three parts. The first is a scholarly investigation of the origins of the idea of immortality. It embodies an important contribution to our knowledge of that subject.

Parts II and III are those of chief interest to the general public. Part II consists of statistics of belief in personal immortality and in a God with whom one may hold personal relations. For the first time we are in possession of reliable statistics valid for large groups of influential persons. The figures are in many respects startling, in particular those revealing that, in all the groups investigated, the proportions of believers are much smaller among the more distinguished than among the less distinguished members. The author seems justified in his opinion that the cause of the present religious crisis cannot be remedied by the devices usually put forward, for it has a much deeper cause than those usually discussed.

Part III treats of the Present Utility of the Belief in God and in Immortality, and points to a minimum requirement that would save religion from being in conflict with science.

## PRESS OPINIONS.

"It is a book which every clergyman, as well as every one interested in the psychology of religion and in the future of religion, should read and ponder. For Professor Leuba has made a contribution to our knowledge of religious belief that is of very considerable significance."—*Prof. James B. Pratt, in the American Journal of Theology.*

"It is an honest effort . . . done with scientific precision and love of truth. Such an investigation, wherever its results may now seem to lead, tends surely toward an ultimate good."—*The Christian Register, Boston.*

"His more important conclusions are quite well established."—*The American Anthropologist.*

---

---

OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVE.

CHICAGO, ILLINOIS



# THE EARLY MATHEMATICAL MANUSCRIPTS OF LEIBNIZ

PUBLISHED BY CARL IMMANUEL GERHARDT. TRANSLATED FROM THE  
LATIN TEXTS WITH CRITICAL AND HISTORICAL NOTES

By J. M. CHILD

Cloth, \$1.50

A study of the early mathematical work of Leibniz seems to be of importance for at least two reasons. In the first place, Leibniz was certainly not alone among great men in presenting in his early work almost all the important mathematical ideas contained in his mature work. In the second place, the main ideas of his philosophy are to be attributed to his mathematical work, and not *vice versa*. The manuscripts of Leibniz, which have been preserved with such great care in the Royal Library at Hanover, show, perhaps more clearly than his published work, the great importance which Leibniz attached to suitable notation in mathematics and, it may be added, in logic generally. He was, perhaps, the earliest to realize fully and correctly the important influence of a calculus on discovery. Since the time of Leibniz, this truth has been recognized, explicitly or implicitly, by all the greatest mathematical analysts.

It is not difficult to connect with this great idea of the importance of a calculus in assisting deduction the many unfinished plans of Leibniz; for instance, his projects for an encyclopædia of all science, of a general science, of a calculus of logic, and so on.

## THE OPEN COURT PUBLISHING COMPANY

CHICAGO

LONDON

# Saccheri's Euclides Vindicatus

Edited and translated by

GEORGE BRUCE HALSTED

Latin-English edition of the first non-Euclidean Geometry published in Milan, 1733

Pages, 280

Cloth, \$2.00

A geometric endeavor in which are established the foundation principles of universal geometry, with special reference to Euclid's Parallel Postulate.

---

---

## THE OPEN COURT PUBLISHING CO.

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

# THE SUPREME HUMAN TRAGEDY

AND OTHER ESSAYS

By

ARTHUR BRODRICK BULLOCK, M. A.

Price, \$1.00

---

---

A small book of essays on important subjects the most valuable of which is one entitled "The Supreme Human Tragedy." The keynote of this book is to point out the important fact that self assertion really means self annihilation. It states very impressively that the world war was an insane outburst of collective Egoism which made men become swine into which the unclean spirit entered.

"The *sine qua non* of improvement depends solely on the possibility of suppressing Egoism, by training the young to understand the principle of the Unity of Life and the new view of the world which it involves. In a word, so long as the veil of ignorance lies thick and heavy over the world there can be no real improvement. By ignorance is meant the want of that insight which enables us to break down the apparent wall of partition between the different life-forms and perceive the eternal unity behind—that unity whereof the ultimate essence of our being is a part."

The book offers but a half hour's reading well worth while.

---

---

THE OPEN COURT PUBLISHING CO.

122 SOUTH MICHIGAN AVENUE

CHICAGO

LONDON

# FIRST COURSE IN STATISTICS

BY

D. CARADOG JONES, M.A., F.S.S.

FORMERLY LECTURER IN MATHEMATICS  
AT DURHAM UNIVERSITY

Price, Cloth \$3.75

The fundamental importance of the right use of Statistics is becoming increasingly evident on all sides of life, social and commercial, political and economic. A study of this book should enable the reader to discriminate between the masses of valuable and worthless figures published, and to use what is of value intelligently. It is meant to serve as an introduction to the more serious study of the theory provided by other works.

## PRESS NOTES.

This is an excellent "first course" to place in the hands of a mathematical student who wishes to develop his work on the statistical side or is interested in probability and has an eye to research on the mathematics of the subject. As the book is one of Bell's Mathematical Series (Advanced Section), it is natural that the subject should be approached in this way, but its use will be wider than that indicated, because it will make a good second course for a person doing statistical work in practice if one of the elementary books on the subject has been read first, and it can be used for revision purposes by those teaching the subject who prefer to give one of the well-known existing textbooks to their pupils in the first instance.—*Mathematical Gazette*.

This is an admirable introduction to one of the most important of subjects. Statistics, it is safe to say, were never more used, nor less understood, than they are today.—Mr. Jones has done his work well. He explains the special terminology of the subject clearly, and deals squarely with all the difficulties. We trust his valuable book will have a very large circulation. It deserves it.—*Scottish Educational Journal*.

Persons interested in statistics—and the number of such is increasing daily—will find in this volume a very compact, clear and sufficiently complete account of the mathematical machinery employed in analyzing raw statistical material and in deducing general statements regarding the characteristics—these pages offer an excellent introduction to the works of Pearson, Yule, Bowley, Edgeworth, and the other pioneers of this branch of science.—*Journal of Education*.

---

OPEN COURT PUBLISHING COMPANY

CHICAGO

LONDON

# A History of the Conceptions of Limits and Fluxions in Great Britain from Newton to Woodhouse

By **FLORIAN CAJORI, Ph. D.**

Professor of History of Mathematics in the University of California

With Portraits of Berkeley and Maclaurin.

Pages, 300

Cloth, \$2.00

---

---

A sensational event in the early history of mathematics was Bishop Berkeley's attack upon the logical foundations of the Calculus invented by Newton and Leibniz. Not as well known is the defence of the Calculus made by contemporary mathematicians. Hardly known at all are the quarrels among the English mathematicians themselves which followed the controversy with Berkeley. These matters are worked out from original sources in Professor Cajori's book. It includes extensive quotations from documents not available except to those who search in the various scientific libraries of London. Lovers of mathematics will find the book of undoubted interest.

---

---

**THE OPEN COURT PUBLISHING COMPANY**

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

NEW ADDITIONS TO THE  
**OPEN COURT MATHEMATICAL SERIES**

---

**Elementary Vector Analysis: with application to Geometry and Physics**

By C. E. Weatherburn, Ormond College, University of Melbourne. Pages, 184. Price, \$3.50

A simple exposition of elementary analysis. Vector Analysis is intended essentially for three-dimensional calculations; and its greatest service is rendered in the domains of mechanics and mathematical physics.

---

**An Elementary Treatise on Differential Equations and Their Application**

By H. T. H. Piaggio, M. A. Professor of Mathematics, University College, Nottingham. Pages, 242 Price, \$3.50

The theory of Differential Equation is an important branch of modern mathematics. The object of this book is to give an account of the central parts of the subject in as simple a form as possible. Differential Equations arise from many problems in Algebra, Geometry, Mechanics, Physics and Chemistry. The study of Differential Equations began soon after Newton in 1676 solved a differential equation by the use of an infinite series . . . but these results were not published until Leibniz account of the differential calculus was published in 1684. Then followed a series of brilliant experiments and theories until the present day when modern mathematicians find the subject a fascinating field of research.

---

**A First Course in Nomography**

By S. Brodetsky, M. A., Ph. D., Leeds University. Pages, 135. Price, \$3.00

An elementary treatise in the construction and use of charts as a means of solving equations. Nomography is a recognized means of carrying out graphical calculations in military service, engineering practice and mechanical industry.

The utility and convenience of charts as a means of solving equations is rapidly becoming more important with the development and general use of scientific method in commerce and industry. The ballistic constant in gunnery, flame, temperature in the research of coal-gas combustion, the angle of twist in a thread of given thickness with a given number of turns per inch, the conversion of counts in the textile industry, can all be calculated by means of nomograms.

**THE OPEN COURT PUBLISHING COMPANY**  
CHICAGO LONDON

# The Philosophical Writings of Richard Burthogge

Edited with Introductions and Notes by

MARGARET W. LANDES

Wellesley College

*Pages, 245*

*Cloth, \$2.00*

---

THE re-discovery of a seventeenth-century English philosopher proves the maxim that merit is not often recognized in a scholar's own day not only because his teaching is premature but also because it is so pervaded by the dominating thought of the time that its element of originality is lost.

Burthogge's theory of knowledge is his most important philosophical teaching. His doctrine of the superiority of mind over matter is about the same as that taught by More and by Cudworth. However far from holding that sense is a hindrance to knowledge, Burthogge teaches, like Kant, that it is one of the only two sources of knowledge.

This volume is the third contribution to the study of seventeenth and eighteenth-century English philosophical texts by graduate students of Wellesley College.

---

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

# A Short History of Christian Theophagy

BY

PRESERVED SMITH, PH.D.

---

---

## ADVANCE NOTICE.

"In proportion as the knowledge of history becomes more profound and intelligent", says the great French scholar, Gabriel Monod, "an ever larger place is given to the study of religious beliefs, doctrines, and institutions". But, continues the same authority, the study of these phenomena is as yet very backward, partly because of the intrinsic difficulty of the subject, partly because the fear of wounding others' feelings or of exciting their prejudices prevents many investigators from cultivating this field in a scientific spirit. The present work attempts to subject to rational analysis and objective consideration one of the most interesting and fundamental of Christian doctrines. The author, who writes *sine ira et studio*, as one who has no party to serve and no cause to advance save that of truth, coolly exhibits the history of the idea of the sacrificed and eaten god from its obscure dawn in primitive times to its evening twilight in the present.

The practice of eating a god in the form of first-fruits or of a divine animal originated in ancient times, and attained an extraordinary development in the Mystery Religions of the Greeks, in the cults of Attis, of Adonis, of Osiris, of Dionysus, of Demeter, and of other Saviour Gods. From these cults the idea was borrowed by Paul and, against opposition of the Jewish Christians, fastened on the church. The history of the dogma, after the first centuries of our era, has been the story of attempts to explain it. Transubstantiation and the doctrine of the sacrifice of the mass were not, as commonly by Protestants and rationalists they are said to be, the inept inventions of a barbarous age, but were the first endeavors to reason about and philosophically to elucidate beliefs formerly accepted with naïve simplicity. The hardest battles over the dogma came in the Reformation period, which accordingly bulks large in the present work. While Luther, Calvin, and other prominent Reformers believed in a real presence, but tried to give its mode new explanations, other more advanced spirits, Honius, Carlstadt, Swingli, Tyndale, and their fellows, adopted the view, now prevalent in Protestant communions, that the eucharistic bread and wine were mere symbols. After the heat of the sixteenth-century controversies, Zwinglian or rationalist views were quietly adopted by most Christians, though here and there high sacramentalism survived or was revived.

Rightly understood the present study will be appreciated as a scientific essay in the field of comparative religion, and as furnishing a rational explanation of much that is most delicate and important in the history of Christianity.

Ready April 1st

OPEN COURT PUBLISHING COMPANY

122 S. Michigan Ave.

Chicago

**Publishers:** WILLIAMS & NORGATE, London; WILLIAMS & WILKINS CO., Baltimore;  
FELIX ALCAN, Paris; NICOLA ZANICHELLI, Bologna; RUIZ HERMANOS, Madrid;  
THE MARUZEN COMPANY, Tokyo.

**“SCIENTIA”** INTERNATIONAL REVIEW OF SCIENTIFIC SYNTHESIS  
*Issued Monthly (each number consisting of 100 to 120 pages).*  
Editor: EUGENIO RIGNANO.

IT IS THE ONLY REVIEW which has a really international collaboration.

IT IS THE ONLY REVIEW of absolutely world-wide circulation.

IT IS THE ONLY REVIEW occupying itself with the synthesis and unification of knowledge, which deals with the fundamental questions of all the sciences: history of the sciences, mathematics, astronomy, geology, physics, chemistry, biology, psychology and sociology.

IT IS THE ONLY REVIEW which, by means of enquiries among the most eminent scientists and writers (on: The philosophical principles of the various sciences; The most fundamental astronomical and physical questions of current interest; The contribution given by the various countries to the different branches of knowledge; the question of vitalism; the social question; the great international questions raised by the world war), makes a study of the most important questions interesting scientific and intellectual circles throughout the world.

It has published articles by Messrs.:

Abbot, Arrhenius, Ashley, Bayliss, Beichman, Benes, Bigourdan, Bohlin, Bohn, Bonnesen, Borel, Bottazzi, Bouty, Bragg, Brillouin, Bruni, Burdick, Carracido, Carver, Castelnuovo, Caullery, Chamberlin, Charlier, Clamian, Claparède, Clark, Costantin, Crommelin, Crowter, Darwin, Delage, De Martonne, De Vries, Durkheim, Eddington, Edgeworth, Emery, Enriques, Fabry, Findlay, Fisher, Foà, Fowler, Fredericq, Galeotti, Golgi, Gregory, Guignebert, Harper, Hartog, Heiberg, Hinks, Hopkins, Iiigues, Innes, Janet, Jespersen, Kaptein, Karpinski, Kaye, Kidd, Knibbs, Langevin, Lebedew, Lloyd Morgan, Lodge, Loisy, Lorentz, Loria, Lowell, MacBride, Matruchot, Maunder, Meillet, Moret, Muir, Pareto, Peano, Pearl, Picard, Plans, Poincaré, Puiseux, Rabaud, Reuterskjöld, Rey Pastor, Righi, Rignano, Russell, Rutherford, Sagnac, Sarton, Sayce, Schiaparelli, Scott, See, Selignan, Shapley, Sherrington, Soddy, Starling, Stojanovich, Struycken, Svedberg, Tannery, Teixeira, Thalbitzer, Thomson, Thorndike, Turner, Vinogradoff, Volterra, Von Zeipel, Webb, Weiss, Westermarck, Wickell, Willey, Zeeman, Zeuthen and more than a hundred others.

“Scientia” publishes its articles in the language of its authors, and joins to the principal text a supplement containing the French translations of all the articles that are not in French. *Write for a Specimen Number to the General Secretary of “Scientia,” Milan.*

ANNUAL SUBSCRIPTION: 40 sh., or 10 dollars post free. OFFICE, 43, Foro Bonaparte, Milan, Italy.  
General Secretary: Doct. PAOLO BONETTI.

JUST PUBLISHED

## A Christian's Appreciation of Other Faiths

By

REV. GILBERT REID, D. D.

Author of *China at a Glance*  
*China Captive or Free, Etc.*

Cloth, \$2.50

Pages 360

Dr. Reid is the Director of the International Institute of Shanghai, China, where he was established before and during the Great World War. His social and political relations with the Orient during the trying period of China's neutrality created in him a spirit of international understanding which broke down all sense of separateness in human life, particularly in spiritual matters. His book is inspiring to every sincere student of the science of religion and will do much to establish the new order of human fellowship.

Order through any book dealer.

OPEN COURT PUBLISHING COMPANY

122 South Michigan Avenue

CHICAGO