

# POLITE LITERATURE.

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I.—*On the Khorsabad Inscriptions.* By the Rev. EDWARD HINCKS, D. D.

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Read June 25, 1849.

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1. **T**HE high honour which the Academy conferred upon me at the close of its last session has naturally made me desirous of presenting to it some additional communication; and as it seems to be the general opinion, that I have been most successful in my attempts to decipher the cuneatic writing, and as more interest seems to be felt with respect to the inscriptions in the buried palaces of Assyria, which have been recently discovered, than in the longer known Egyptian monuments, I choose for the subject of my present paper the Khorsabad inscriptions.

2. The character in which these inscriptions are written resembles that of the third of the trilingual Achæmenian inscriptions; and, as many preformatives, affixes, and prepositions, which occur in these last inscriptions, are found at Khorsabad also, as well as the groups which represent nouns and verbs, the languages must be regarded as closely connected. Whether they differ as dialects of the same language used in different provinces, or as a language will often be found to differ from itself in the course of 200 years; or whether they are rather distinct languages, but resembling one another, as the English and the Dutch of the present day, cannot yet be decided; nor indeed is it easy to determine what degree of difference ought to be regarded as distinguishing languages, and what as distinguishing dialects only. I have shown in a former paper, that the complicated characters used on the Babylonian bricks, and in the great inscription at the India House, correspond to the third Persepolitan

characters in the same manner as our capital letters correspond to the small letters. The arguments, too, which prove the identity, or at least the great resemblance, of the languages of the Khorsabad and Third Achæmenian inscriptions, prove that the language of the Babylonian inscriptions is similarly related to the others. A like agreement in character and language exists between the Khorsabad inscriptions and those from Nimrud and Kouyunjik.

3. When I say that the Third Achæmenian, the Khorsabad, and the Nimrud characters resemble one another, I would be understood to mean that they bear that general resemblance which different forms of the same letter, when printed from different founts, or written by different persons, will be found to bear to one another. Some characters admit a much greater variety than others do; and the Khorsabad sculptors differed from each other more than either the Achæmenian or the Nimrud ones. A comparison of the different inscriptions at Khorsabad, which contain the same text, will show what forms are varieties of the same character. It will generally be found, that some one of these closely resembles either the Third Achæmenian or the Babylonian lapidary form which corresponds to it; and the equivalence of these is verified, and that of others is established, by the observation of words that are common to the two classes of inscriptions.

4. The inscriptions at Van resemble those of Khorsabad and Nimrud in their character, especially the more ancient ones. The later Van inscriptions, in place of one wedge intersecting another, substitute two wedges, one on each side of it. The language, however, of these inscriptions, is not the same; for, though there are many words common to both classes, the preformatives and affixes of the Assyrio-Babylonian inscriptions are not found in those at Van. On the other hand, there are case-endings and personal-endings to the Van nouns and verbs, which clearly indicate that they belong to an Indo-European language.

5. A very large proportion of the characters of the Second Achæmenian inscription, generally called Median, can be identified with Assyrio-Babylonian characters, having nearly the same phonetic values. The resemblance of the forms is, however, much less striking than between the kinds previously named. The language of these inscriptions is of a different family from that of any of the others; but is, I believe, of the Indo-European stock; though it differs

materially from all languages of that stock, which were previously known, and has, *perhaps*, a Tatar element introduced into it.\*

\* The opinion that the language of the Second Achæmenian inscriptions is Tataric, seems to be gaining ground. In the last Annual Report of the Royal Asiatic Society, it is expressed pretty confidently; no doubt on the high authority of Major RAWLINSON. And from this it follows, as a corollary, that this was not the language of the Medes; for all seem agreed that *they* spoke an Indo-European language. If, however, we attend to the precedence given to Media, next to Persia, in all the inscriptions of Darius, and to the peculiar importance attached to it,—it being not only placed first in the list of provinces at Nakshi Rostam, and in the inscription I. at Persepolis, but being distinguished from them, both at Behistun I. 34, 41, and in the Third Achæmenian inscription L of Niebuhr, where we have the expression, “ Persia, Media, and the other provinces,”—we can scarcely think that the language of this favoured country would be passed over to admit that of Scythia. It has been suggested, that Darius selected these three languages as specimens of the three different races of men that were included in his empire; but this supposes an amount of ethnological and philological knowledge to be possessed by him, for which it is very difficult to give him credit. How minute a proportion of the population of this country, even in these enlightened days, are aware that the English language differs less from the French or the Irish (all three of these being Indo-European) than it does from the Hebrew or the Turkish! And how inconceivable is it, that a monarch should be guided by this consideration, supposing it possible for it to enter his mind, in preference to those political considerations by which he and all his subjects must be warmly affected! I hold it then to be certain, that the language of the Second Achæmenian inscriptions is Median; and that it is so is the first presumptive proof that it is Indo-European. A consideration, however, of the language itself, confirms this presumptive proof. The view which I take of it is this:—it bears a similar relation to a lost language, probably not very dissimilar from that of the Van inscriptions, which the English bears to the Anglo-Saxon, or the French to the Latin. Distinctions which at one time were marked by inflexions, have come to be marked by detached words. The use of inflexions has not been wholly abandoned, but the number of them in use is comparatively small, and other means of expressing what inflexions originally expressed have been adopted. The language of the Second Persepolitan inscriptions appears to me to be perfectly conformable to this hypothesis. Many of the verbal roots, the verbal inflexions, the pronouns and the particles, are decidedly Indo-European; and if there be some which are not so, the case is the same with all other languages belonging to this great stock, each of which has more or less peculiar to itself. There are some of these peculiarities which have been specified as Tataric or Turkish, and I am not prepared to deny that they are so; but this fact would not be sufficient, in opposition to other evidence, to establish the conclusion, that the main body of the language was not Indo-European. Yet the alleged fact may admit of question. The termination of the passive voice in a guttural consonant is one of these supposed proofs of Tatarism; but if we recollect that a guttural consonant is liable to pass into *y*, we have here no material difference from the termination of the Greek passive. There is, however, no passive verb, as it appears to

6. The first step towards the decipherment of these inscriptions is to determine what are distinct characters, and what are different forms of the same character. In the same manner as A, A, A, a, a, a, differing as they do in appearance from one another, must all be recognised as one character, of which A may be assumed as the type or leading form; so a great variety of different forms, occurring in the different cuneatic inscriptions, may be classed together as modifications of one type. In my paper which was read on the 30th November, 1846,\* I gave a list of seventy-six Third Persepolitan characters, with the corresponding Babylonian lapidary characters. In that list I was in error as respects the identity of the characters numbered 15, 33, 34, 35, and 71. I must observe, however, in justice to myself, that those numbered 35 are equivalent, though not identical; those numbered 15 have the consonantal parts of their values alike, so as to be in some cases interchangeable; and those numbered 34 have the kindred value *vā* or *wā* and *bā*, which are confounded in some of the Babylonian inscriptions; so that in two cases only was I altogether mistaken. In two other instances I gave two Persepolitan forms as corresponding to a lapidary character, when only one of them did so. The first of the Persepolitan characters numbered 45, and the last of those numbered 65, are alone identical with the lapidary characters connected with them. The remaining sixty-nine characters correspond precisely as I then stated them to do. As the blocks from which this table was printed are still available, I will here insert, by way of specimen, an extract from it, containing eight pair of characters, with the equivalent Assyrian forms, and also those used in the Van and Median inscriptions.

me, in the Median inscriptions which have been published, so that I cannot speak confidently on this question. In D. 15, the word *giyāmac* appears to me to be an adjective of like form to the Greek *ἐπίστυμος*, meaning "visible;" and so in NR. 32, *kāmac* means "what ought to be done;" which Major Rawlinson has shown to be the translation of the corresponding Persian word (Journal of the Royal Asiatic Society, vol. xi. p. 146). The use of postpositions, in place of prepositions, is another supposed Tatarism; but surely it is not more so than the placing the article after the noun in the Scandinavian and Dacian languages. The Latin *verbo tenus*, and the like, to say nothing of *mecum*, &c.; the Umbrian *pupluper*, "for the people," where the Romans would say *pro populo*; and the occasional instances which we meet in Greek, such as *τυραννίδος περί*; show that this is no peculiarity of the Tatar languages.

\* See Transactions of the Royal Irish Academy, vol. xxi.

				„	ta
				„	tā
					at "father"
			„	„	gi
				„	bi? "house"
					dā
					du
					as

The forms in the second division are from Khorsabad; those in the third from Van, the older form being placed first, if two were used; those in the fourth are Median. I believe the Median character is not an equivalent to the fourth set of characters in this specimen, but a compound of the two elements *u* and *i*; yet the supposition that it is such an equivalent is not an impossible one. The sounds expressed by *g* and *w* are as closely related as many which are expressed by the same character in different European countries, or even in the same country.

7. In assigning values to the above eight characters, and in transcribing cuneatic characters in this paper generally, I adopt the phonetic alphabet of Messrs. Pitman and Ellis, so far as the consonants are concerned. Accordingly I use *c* and *g* to express the hard sounds of these letters; *k* to express the continuant surd guttural,\* which is not used in English, and *q* the corresponding sonant; *ʃ* and *t* to express the sonant and surd sounds of the English *th*; *ç* for *ch*; *f* for *sh*, and *z* for *zh*, or *s* in *measure*: the remaining consonants have their usual English values. Although these characters will not be familiar to many

\* After Mr. Ellis (whose "Essentials of Phonetics" ought to be in the hands of every student of languages), I call such sounds as *f* and *v* *continuant*s, and such as *b* and *p* *explodent*s; but I retain the names *surd* and *sonant* as preferable to his *whispered* and *spoken*; and as much preferable to the *hard* and *soft*, or *sharp* and *flat*, of other phoneticians.

of my readers, and will, in some instances, if the explanation of their values that I have just given be forgotten, suggest sounds different from what I intend to express; I consider it much better to use them than to supply the deficiencies of the English alphabet by Greek letters, the values of many of which would necessarily be conventional, and would, therefore, be likely to be mistaken to a still greater degree than the phonetic characters which I use. It is essential to the correct expression in one character of what is written in another, that each letter used in the transcription should invariably represent one sound; a combination of characters used to represent an elemental sound, such as *th* in the English word *thy*, would be objectionable as a combination, even though it had not the further disadvantage of expressing not only the elemental sound which begins this word, but also the very different one which begins the word *thigh*. The only proper use of this combination is to express the combination of sounds which is heard between the vowels in the words *Chatham*, *hothouse*. As there are only four vowels in the system of writing of which I am treating,\*

\* In the Etruscan language there were four vowels, *a*, *e*, *i*, and *u*; and it is of importance to observe, that these precisely correspond to the four vowels of the cuneatic inscriptions. In the transcriptions, indeed, of Greek proper names, which are found on the Etruscan mirrors, *e* is sometimes the representative of *η*, as in *Pele* for *Πηλεός*; but in the inflexions of nouns and verbs it is the equivalent of the first Sanskrit vowel, which I denote by *a*; as *a* is that of the second Sanskrit vowel, *ā*. Thus, where we have the nominative ending in *e*, the genitive ends in the Perugian inscriptions in *efi*, but more generally in *efa*: I have no doubt that the original ending was *esia*. Here we have the old Persian declension, nominative *a*, genitive *ahyā*, almost exactly reproduced; and likewise the Sanskrit nominative *as*, genitive *asya*, except as to the final letter. The Etruscan genitive in *efa* has been imagined to be a feminine termination. As well might the *ov* in *της του Ουρίου* be called a feminine termination. The Etruscans used a formula similar to this, but were obliged to omit the article, which they did not possess. In like manner in the Sixth Eugubine Table, line 61, we have **PRESTOTA SERFIA** (*κυρία*) **SERFER MARTIER**, *Prestota Domina Domini Martis*; the word *uxor* being sufficiently implied by the genitive which it governs. In the similar expression which immediately follows this, applied to *Tursa*, we should probably supply *filia*. The genitive might denote either of these, and it is only by its position (before or after the mother's name, which was always in the ablative) that it can be known whether, in the Etruscan monumental inscription of a female, it belongs to her father or her husband. The termination *ei* may be the nominative of a feminine patronymic, formed in imitation of the Homeric one, *Velimnei* from *Velimna*, as *Χρυσήεις* from *Χρύση*; for it is evident from the mirrors and paintings that the Etruscans were well acquainted with the poems of Homer. I see nothing, however, in the few inscriptions known to me, which excludes the supposition, that this termination was that of the genitive

while the English phonetic alphabet contains twelve, exclusive of diphthongs, and there are at least twelve foreign vowels, including nasals, which require to be distinguished from these, it is plain that much accuracy in the expression of the vowels is out of the question. I have, therefore, thought it best to express the four vowels by the characters  $\bar{a}$ ,  $a$ ,\*  $i$ , and  $u$ ; which may be understood to have at the close of a word the phonetic values of  $q$  or  $\theta$ , i. e.  $a$  in *alms* or in *all*;  $e$ ,  $u$ , or  $a$  in *idea*;  $\varepsilon$ , i. e. *ee* in *feel*; and  $u$ , i. e. *oo* in *fool*. This mode of expressing the vowels, if it be not the best, is in harmony with the prevailing custom among the learned; and I apply it to the First Achæmænian alphabet also, when I have occasion to transcribe words that are written in it. I accordingly use  $\bar{a}$  for the second Sanskrit vowel, of which

of a nominative in  $a$  or  $as$ . Another instance in which  $e$  clearly corresponds to the Sanskrit  $a$ , is in the nominative plural of a theme in  $i$ . We have in the Perugia inscription, l. 21, 22, *tesne rafne cei tesnsteif rafnef*, "the Etruscan land and the Etruscan inhabitants of the land." *Tesne* is etymologically related to the Latin *terra*, originally *terna*; the former is properly the masculine of an adjective signifying "dry," and the latter is the feminine of a similar adjective. It is given by FÆSTUS as *torrus* (a. s. *tyrre*, Isl. *turr*, Germ. *dürr*), and is derived from *torr-eo*, *tos-tum* (Gr. *τέρο-ομαι*, Sans. *trif-yāmi*, M. Goth. root *tars*, Ger. *dörr-en*); the Latin  $\varepsilon$  and  $\delta$  both represented the Sanskrit  $a$ , like the Greek  $\epsilon$  and  $\omicron$ ; and they were interchangeable in different modifications of the same root, as *λέγ-ω* and *λόγ-ος*. *Tesnsti* is a derivative from *tesne*, as *caelestis* from *cælum* (the intrusion of the  $r$  into the corresponding Latin word *terrestris*, I must leave to others to explain), and *tesnsteif* is its nominative plural. The Sanskrit ending is *ayas*, easily convertible into *aif*, which is, in fact, the Etruscan form. The nominative plural of the second declension in  $ef$  deserves attention. It is different from any of the many endings of this case which occur in the Indo-European languages (unless indeed the Zend *vispes-ga* be a nominative, which Bopp seems to disbelieve,—see his *Vergl. Gram.*, p. 262, note); but it may be accounted for in the same manner as all the other deviations from the primitive form in  $\bar{as}$ , by a wish to distinguish the masculine from the feminine, which also terminated in  $\bar{as}$ . As the nominative singular of the Etruscans did not take the sibilant after the short vowel, it was in *their* power to make this distinction by shortening the vowel in the plural.

\* In arranging these vowels, I adopt the Etruscan rather than the Sanskrit order, placing  $\bar{a}$  before  $a$ , because  $\bar{a}$  seems to be more decidedly different from the other three than any two of these are from each other;  $a$  and  $i$ ,  $i$  and  $u$ , and  $a$  and  $u$ , being all liable to be confounded. In the Etruscan language the distinction between  $a$  and the other three is more strongly marked. Themes in  $a$  admit an  $s$  after them in the nominative singular, which themes in  $e$ ,  $i$ , and  $u$ , never do; and again, the final consonant of the ablative, which must have been originally  $\$$  or  $t$ , is always  $l$  after  $a$ , and always  $f$  after any of the other vowels.

the Van form is  $\text{𐎶}$ . It corresponds to  $\tau$  or  $\text{ῥ}$  when it terminates a syllable, in which position only I employ it. I use  $a$  for the first Sanskrit vowel, the Van  $\text{𐎶𐎶}$ , which generally corresponds to the Greek  $\epsilon$  or  $o$ , and to the Hebrew  $\text{א}$ , or its compounds, or  $\text{א}$  or  $\text{א}$ . I also use it to express the shortened or stopped sound of  $\text{𐎶}$  when followed by a syllable which loses its vowel (see § 15); it has the sound of the Hebrew  $\text{א}$ .\* In Median this vowel is scarcely to be distinguished from  $i$ ; and in all the Assyrio-Babylonian varieties of writing, the distinction is very little attended to. By  $i$  I express the Van  $\text{𐎶𐎶}$ , answering to the third and fourth Sanskrit vowels; and to  $\text{א}$  or  $\text{א}$  when terminating a syllable, to  $\text{א}$  or  $\text{א}$  when a consonant terminates the syllable. By  $u$  I express the Van  $\text{𐎶𐎶𐎶}$ , answering to the fifth and sixth Sanskrit vowels, and to  $\text{א}$  or  $\text{א}$  in Hebrew. I may here observe, that in the Van inscriptions it is very common to introduce at pleasure, apparently for the purpose of filling up space, the vowel with which the value of a character terminates, after that character. In Assyrio-Babylonian this is sometimes done, but not near so commonly. In Median it is not done at all.  $\text{𐎶𐎶𐎶}$  and  $\text{𐎶𐎶𐎶}$  equally express  $d\bar{a}$  in every variety of writing but the Median. The corresponding Median characters  $\text{𐎶𐎶𐎶}$  express  $d\bar{a}.\bar{a}$ , as two syllables. Such a combination, however, as  $d\bar{a}.as$  would be pronounced  $das$  in Median, as well as in the other varieties of writing. In all such cases I use an apostrophe in place of the vowel cut off, writing the first of the preceding forms  $d'.\bar{a}$ , and the last  $d'.as$ ; the point is always used between the transcriptions of two characters. An apostrophe is also used when a character, the value of which is a consonant preceded by  $i$ , is used (chiefly in Median) for the single consonant; whether it closes a syllable, or combines at the beginning of one with another consonant, as in the name corresponding to *Scudra*, which is  $\text{𐎶𐎶𐎶𐎶𐎶}$   $\text{𐎶𐎶𐎶}$   $\text{𐎶𐎶𐎶}$   $\text{𐎶𐎶𐎶}$ . 'S.cu.'d.rā for, Is.cu.iḏ.rā. (See also the first note in § 15.) Lastly, an apostrophe will be used for the final  $r$  or  $s$  of a syllable, when it is assimilated, as it is liable to be in Median and Assyrian words, to a following consonant. Thus I transcribe  $\text{𐎶𐎶𐎶𐎶𐎶}$   $\text{𐎶𐎶𐎶}$   $\text{𐎶𐎶𐎶}$  the Median word corresponding to *Gadāra*, by  $Qa'.d\bar{a}.r\bar{a}$ . The initial character is properly *kar* which the Medes did not distinguish from *gar*.

\* It will, perhaps, be objected, that this is a distinct sound from the preceding. I admit that it is so; but I believe the distinction was overlooked by those who used the cuneatic characters. At any rate I have not been able to recognise it.























(a) I must now say a few words with respect to the course which I have taken in relation to the *phonetic defects* of the cuneatic system of writing. If each cuneatic character had one value only, and if no two characters had the same value, the defects to which I allude would not exist. Unfortunately, however, neither of these is the case. Many characters admit of two or more kindred values, the distinction between which, though obvious to us, would appear not to have been considered by the people who used this mode of writing so great as to require different modes of representing them; and again, some characters appear to have precisely the same values, though much fewer than might be inferred from a mechanical comparison of inscriptions and observance of interchanges.\* With respect to the last-named defect, there can, I think, be no doubt that the proper course is to represent alike characters which appear to have been sounded exactly alike; but with respect to the former it may be doubted whether it be more desirable to give different values to the same character, or to give it one value only, with a warning to the reader, that he may, under certain restrictions, substitute another for it at his pleasure. I have in general adopted this latter course, though in a few instances, which I will specify, I have

\* A consideration of the Eugubine Tables is very useful in showing the fallacy of the inference, that characters which are interchanged with one another must necessarily be equivalent. The beginning of the name of the people is in the Fourth Table, line 2, written both **VMI** and **VII**, whence the equivalence of **i** and **ɿ** might be considered as proved. The terminations of the accusative singular and plural, transcribed in the later Tables by **M** and **F**, are liable to be omitted, and might have been regarded as vowels or breathings. The word corresponding to *publicæ* is variously written with **ɿ** and a character like **d** for the penultimate letter. This last character is transcribed by **s**, whence it might be inferred that **ɿ**, and of course **i**, had the same value as **s**. In this case the real state of the case is known, and of course the fallacy of reasoning of this sort is evident. **i** had two values, *i* and *y*; with the latter value it might supply the place of *g*, which the alphabet did not contain; or otherwise this deficient character might be supplied by **ɿ**, that is *c*; not that *c* and *y* were equivalent, but that either might supply the place of *g*, which was wanting. The sounds of *m* and *f*, and I may add *r*, were dropped by many of the Eugubians at the end of a word, and were, therefore, frequently omitted in writing. Lastly, the **d** of the earlier inscriptions invariably represents the Latin **c** or **ç** before **e** or **i**, when some speakers pronounced it either as *s* or as *ç*, while others gave it its hard sound. Hence the diversity of writing such words as **PACE**, **PASE**, **CERITV**, **SERITV**, &c. The fact then is certain, that no two of the Umbrian characters were *equivalent*, although many were *interchanged*.

felt it necessary to take the former. I will now briefly point out the instances where substitution is allowable. I believe that the Assyrio-Babylonian writing maintains a clear distinction between the four vowels, and also between the corresponding surd and sonant consonants, such as *c* and *g*, *t* and *d*, and the like; except, indeed, at the end of a word, where surd and sonant seem to have been confounded. The distinction is, however, much less clear between the corresponding explodent and continuant consonants, such as *c* and *k*, *t* and *ʔ*, and the like; and again between the guttural (called by Hebrew grammarians palatal),\* and the labial continuants, and the palatal, or guttural, and labial semi-vowels; that is to say, between *k*, *q*, and *y*, and between *f*, *v*, and *w*. Under these circumstances, I have thought it best, when a character admitted, for instance, the consonantal values *c* and *k*, to write it always *c*, allowing this to be sounded *k* at the discretion of the reader; who will, however, do well to attend to the rules for inserting or omitting *dagesh lené* in the *beqat̄ cefat̄* Hebrew letters, and in particular will prefer the continuant sound at the end of a word. On the other hand, when a character admitted the values *k* and *y*, or *q* and *y* (no character admitted all the three values), I write it *k* or *q*, as the case may be, allowing the reader to substitute *y*; and so in like manner, when I write *f* or *v*, the reader may substitute *w*. In some instances I have used *y* and *w* as elements in the values of characters; especially, but not exclusively, in the combinations *ya*, *ay*, *wa*, and *aw*, the first two of which pass into *i*, and the last two into *u*. In that case I have thought it necessary to give the character a double value; writing for instance, for  $\text{𐤏𐤍}$ , sometimes *ya*, and sometimes *i*; for  $\text{𐤏𐤍𐤏}$ , sometimes *ray*, and sometimes *ri*, &c. In some cases where I have used *y* and *w*, the reader may substitute *q* or *k*, and *v* or *f*; but I cannot always with confidence say which. There are two other interchanges of sounds, which are constantly made in these inscriptions, that must appear to a European very singular. There seems to have been no clear distinction made between *l* and *r*, and between *w* and *m*. There were at

\* I call letters like *c* and *g* *guttural*, after the Sanskrit grammarians, and in conformity with general custom; but the vowel *i*, to which they are akin, is more commonly called *palatal*. The name *palatal* is applied by the Indians to *ç* and *j*, and by Mr. ELLIS to *s* and *z*; and here, by the way, I would observe that these last two letters are not *properly* explodents, but are continuants, as much as *f* and *z*. They may, however, for many purposes, be classed with the explodents, bearing much the same relation to *f* and *z*, as *t* and *d* bears to *t* and *d*.

least some characters in which *l* and *r* might be equally sounded ; though others appear to have always expressed one or other ;  was, I believe, always *lu*, and  always *ru*.\* The inconvenience of using the same character to

\* The number of characters containing *r* is unusually great ; and I suspect that a distinction existed, though it seems scarcely possible to recover it, between the slightly trilled and the strongly trilled *r*, such as exists in the Armenian alphabet of the present day, and as existed in the Umbrian of the first five Eugubine Tables. It is curious that the strongly trilled *r*, which is in the sixth and seventh Tables generally represented by the conventional digraph *rs*, corresponds to the Latin *l* rather than *r* ; *puppice*, at the end of the second Table, would be in Latin *publicæ* ; **DERSICURENT** VI. 62, would be *deliquerint* ; and so in most other instances, if not in all. The Umbrians had, however, a distinct *l* of their own. The alphabet of the first five Tables is generally known to be taken from the Etruscan, with some slight modifications, and with some additional characters, which latter varied in the different Tables which were inscribed at different periods. The Etruscan alphabet is of great importance in all investigations into ancient writing, because from the ancient table of the twenty letters in their proper order, which has been preserved to us, we know the exact Phœnician or Hebrew letters to which sixteen out of these twenty corresponded ; and because from the strict phonetic propriety which characterizes the Etruscan alphabet, we can be sure of the precise values of almost all its letters. Of the twenty letters, there were four vowels (for the values of which, see note \*, in p. 8), four so-called liquids, and three consonants, of each of the four classes, gutturals, dentals, labials, and sibilants. In each of these classes they had the two continuants and the surd explodent, but not the sonant explodent ; they had, for instance, *p*, *f*, and *v*, but not *b*. The immense importance of this alphabet induces me to give it here. It is unnecessary to give the Etruscan letters ; but I give the corresponding Hebrew ones, and the phonetic values expressed in the manner explained at the beginning of this section : 1.  *ā* ; ,, 2.  *c* ; ,, 3.  *a* ; 4.  *v* ; 5.  *z* ; 6.  *q* ; 7.  *ʃ* (?) ; 8.  *i* ; ,, 9.  *l* ; 10.  *m* ; 11.  *n* ; ,, ,, 12.  *p* ; 13.  *f* ; ,, 14.  *r* ; 15.  *s* ; 16.  *t* ; 17. *u* ; 18.  (?) ; 19. *k* ; 20. *j*. The only doubt which can reasonably exist respects the seventh and eighteenth letters,—which of them is *ʃ*, and which *t*. I have made the former *ʃ* on the ground that, accompanying the three other sonant continuants, it should be one also ; but if it be the letter which occurs in the names which the Romans converted into Volterra and Tanaquil, it must certainly be *t*. This last is a question of fact, on which I have not sufficient evidence before me. Let it be observed, that a plain circle is the seventh letter ; a circle with its diameter is the eighteenth ; while a circle with a point in the centre may be used by some sculptors for one, and by some for the other. I do not think that it by any means follows that the Phœnician letters had, *all of them*, the values here connected with them. The mistake which the Etruscans made as to the power of *ʃ*, in which they were followed by the Romans, is obvious. But I think we have in this Table evidence, that *ʃ* and *t* were not only related to each other as surd and sonant, but that their values were *q* and *j* (i. e. *ʃf* and *dz*), rather than *ts*, and either *z* or *dz* ; and also that the value of  was *q* rather than *k*, or at least that it might be either of the two. This is a very important fact ; and the observation of it relieved me from a great difficulty, which

express sounds so different as these appears to me so great, that I have felt it necessary to give more than one value to characters containing these sounds. Thus, I may occasionally employ *lay* and *li*, as well as *ray* and *ri*, for 𐎠𐎡; and for 𐎠𐎡 I will write, according to what appears to me the propriety of each case, *ma*, *wa*, and *u*.


(b) This is the proper place for explaining the use which I sometimes make of Greek letters. I use them to represent values different from their true ones, which were assumed by certain characters under particular circumstances. Thus the Medes and Assyrio-Babylonians seem to have almost invariably rejected the sound of *s*, except in such combinations as *Scudra*, already mentioned; substituting for it *z* before a vowel and *r* before a consonant, or at the end of a word; which *r*, as I before observed, is liable to be assimilated to the following consonants. These substituted values I will express by  $\theta$  and  $\rho$ . Thus, in transcribing the Median transcriptions of the Persian adjective and noun at the beginning of the window inscription of Darius, *Ardastāna ātagina*,\* 𐎠𐎡𐎢𐎣 𐎤𐎥𐎦𐎧 𐎨𐎩𐎪𐎫 𐎬𐎭𐎮𐎯 𐎰𐎱𐎲𐎳 𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿, I write *qap.dā.'s.ṛā.nā qath.a'* (or  $\rho$ ) *qin.nā*. The initial character in both words is the same, and is properly *qas*. In like manner, I use  $\delta$  under certain circumstances


I felt, when I observed that the names corresponding to גליל and דורן began alike in the inscriptions; that the medial character in the words corresponding to רגל and רחוקת was the same; and that the beginning of the word corresponding to ארחוקה was what preceded the final character in the Babylonian transcription of *Iatagus*. I recollected then that the Arabic ج (= ǰ) differs from ح and ح (= ʕ) only by a diacritical point, and that these two equivalents of the Hebrew letter may have been intended to express its double value, *q* and *k*. The equivalence of *Aγβάτανα* to אהמרתא, and of *galbanum* to חלבבנה, occurred to me likewise; and also the obvious connexion of קרה and γαθήω, חם and γάμος. Everything, in short, seems consistent with this observation.

\* That *atagina* is a noun, and that it signified the chamber in which the inscription is found, is quite certain from the corresponding Median word having the determinative prefix of places (see § 19). The conclusion of the sentence, too, which is in both Median and Babylonian very distinctly "in the house of King Darius," is inconsistent with any other interpretation. The only difficulty is in the etymology of the word *atagina*; for the adjective seems clearly to signify "lofty," *alté-stans*. Is it possible that it can signify a "fire-temple;" an *r* before the *g* having been dropped in Persian? An *r* in this place *may be* read in Median. I am not sufficiently acquainted with the Zend, and its kindred languages, to pronounce one way or the other as to this suggested etymology.






for *z*; intending that it should be pronounced as *ā*. These are the only instances in which, in the Assyrio-Babylonian inscriptions, I deviate from the rule of constantly representing the same cuneatic character in the same manner whenever I have occasion to transcribe it. In the Median, where surds and sonants were not in general distinguished, I have used Greek letters for the ordinary ones where a character which properly expressed a sonant was used for a surd, or *vice versâ*. Thus, in the transcription just given, the second and fourth characters in the first word are the same. I write the former *dā*, its proper value, as in Assyrian; the latter *τā* rather than *tā*, to show that it is used with an improper value. If there be no Greek letter which can express the consonant substituted for the true one, I am obliged to give the character a double value. Thus  $\text{𐎠}$ , of which the proper value is *jā*, is in Median represented indifferently by *jā* and *gā*; there being no Greek letter which expresses *g*. In like manner *k* and *q* are used in the representations of the same Median characters, though they express different Babylonian ones. In the Van inscriptions another kind of confusion exists. The dental continuants *t* and *ā* were pronounced in many characters, if not in all, as *f* and *v*. This is analogous to what we observe at this day in Russia. The Russians constantly pronounce the  $\Theta$  of the Greek and of their own alphabet as *f* instead of *t*; saying *Feodor* for instance, in place of *Theodore*; *Afini* for *Athens*. Thus  $\langle \text{𐎠} \text{𐎠} \rangle$ , of which the Assyrio-Babylonian value is *āi*, is in the Van inscriptions  $\langle \text{𐎠} \text{𐎠} \rangle$ , *vi*, *wi*, or *mi*, which I should write for distinction  $\beta i$  or  $\mu i$ . This is used in the Median, under the form  $\text{𐎠} \text{𐎠}$ , to express the final *m* in the transcriptions of Persian words, such as *siyātīm*; in Median  $\langle \text{𐎠} \text{𐎠} \text{𐎠} \text{𐎠} \rangle$  *si.yā*, *ti.μ*. The corresponding surd character  $\text{𐎠} \text{𐎠}$ , *ti*, is in the Van inscriptions  $\text{𐎠} \text{𐎠}$  *fi*, *wi*, or *mi*; and I should express it by  $\text{F}i$  or  $\mu i$ .\*

\* These values of  $\text{F}$  and  $\beta$  may be regarded as conventional. I have, however, no doubt that the digamma was sounded by the Greeks very nearly, if not exactly, as our *f*, when it was not sounded as *w*. It was thus the exact equivalent of the Van  $\text{𐎠} \text{𐎠}$ , when stripped of its vowel. In the Umbrian transcriptions of Greek words, the digamma is expressed by  $\text{F}$ , *f* (see an instance in the note in page 8), although the Etruscan and Umbrian letter, which was similar in form to  $\text{F}$ , and which had the same place in the alphabet, had the value of *v*, and is transcribed by *v* in those Umbrian inscriptions which are in the Roman character. The Romans here agreed with the Greeks. The use of  $\phi$  for *f* is less proper, as the value of this Greek letter was *ph*.—(See Donald-

8. Without entering on the question, which variety of form is best entitled to be considered as the type, I will in the present paper, writing as I am about the Khorsabad inscriptions, adopt a Khorsabad form, and that which, if as easily expressed in printing as the others, is least likely to be confounded with any other character. One thing to be guarded against in deciphering this writing is the supposition, that the same forms, when they occur in different varieties of writing, must represent the same character. Many instances to the contrary occur. Thus the fifth of the Persepolitan characters, in the preceding short list, is identical in form with a Khorsabad character; but that has a totally different value, viz., *mal* or *wal*. The equivalent Khorsabad characters are very unlike it; but one of them has a great degree of resemblance to the corresponding lapidary character. The Persepolitan character which follows is also used in some of the Khorsabad inscriptions, but with a value essentially different from *dā*. The mistakes into which persons who are not on their guard may be led by these resemblances, will be illustrated by the following reasoning, analogous to that which they will be apt to use. "A certain long character, , is in English manuscript the equivalent of S, and in German manuscript of H; consequently S and H are equivalent characters."

9. Of the eight characters in the preceding list, two have ideographical values assigned to them, in addition to their phonetic values. The third signifies "father," one word for which was *atwa*, in the plural *atwat*, of which this was the initial character. The fifth signifies "house," the word for which was *bit*; and if it had any phonetic value distinct from this, it is most likely that it was *bi*, the commencement of the word. It is, at any rate, certain that , which generally denotes the syllable *bi*, is occasionally used for the word "house," as an equivalent of the character here given.\* Many other phonetic characters express words of which, when written in full, they are the initial

son's *New Cratylus*, p. 124). The modern Greeks pronounce  $\beta$  as *v*, but I question if their ancestors did so. There is, however, no other Greek letter which can, with any propriety, represent that sound.

\* There are sixteen inscriptions on the reverses of the slabs, which contain the same text; BOTTA, 164-179. In 164. 22, and ten others we have    *bi.t'i*; in 165. 17, and two others,  only; and in 167. 32, and 170. 22, . The following character begins a line in 172, showing that it commences an independent word.

characters. This may be considered as analogous to our abbreviations, especially to such as are used in shorthand; but it is not improbable that some at least of these characters originally denoted ideas, and thence in process of time the initial sounds in the words which express them. Abbreviations like  $\text{𐎠𐎢}$  for "father" and  $\text{𐎠𐎡}$  for "house," where the character used is a regular phonograph capable of expressing a certain syllable (*at* or *bi* in the above instances), *wherever it occurred*, may be considered as the first class of ideographs.

10. A second class consists of characters like the mixed signs of the Egyptians, which sometimes represent words by themselves, and sometimes with the addition of certain complements; but they are exclusively used in these words. Such is  $\text{𐎠𐎢}$ , which is sometimes used alone, but more frequently with the complement  $\text{𐎠𐎡}$ , *bi*, to denote a noun, signifying "territory," or the like. This mixed sign sometimes appears in the very different form  $\text{𐎠𐎢𐎠}$ ; and the corresponding Persepolitan form is  $\text{𐎠𐎢𐎠}$ , which occurs H. 3, 6, 20. In the last of these places, the noun being in the plural,  $\text{𐎠𐎢𐎠𐎢𐎠}$ , *b'.u* is substituted for *bi*. The value of the former part of this word is as yet unknown; but it must terminate with a vowel, because in the India House inscription it is always completed with the character which corresponds to  $\text{𐎠𐎢}$ , *bā*, instead of *bi*. After a syllable terminating with a vowel, another syllable terminating with *any* vowel was liable to lose it, so as to form one syllable with the preceding; and in that case I conceive that the former of the two vowels, if long, was shortened: *bā.bā, bā.bi* and *bā.bu*, might, as well as *bā.ba*, represent in all the Assyrio-Babylonian varieties *bab*. In the Van system, this could be represented by the last alone of these four combinations. As it was not imperative to drop the vowel of the second character, there was some ambiguity as to whether it should be dropped or not. This might be avoided, either by the use of characters terminating with a consonant, or by the insertion of vowels, as of *u* after *bu* in the plural form given above. The name of Babylon is occasionally written with the characters *bā.bi.lu.wā*. Sometimes, however, an *i* is inserted after the *bi*; and much oftener it is written with different combinations, the commonest of all, which is invariably used at Khorsabad, and most frequently in the Babylonian documents, being *bab.il.lā.wā*,  $\text{𐎠𐎢𐎠𐎢𐎠𐎢𐎠}$   $\text{𐎠𐎢𐎠𐎢𐎠}$   $\text{𐎠𐎢𐎠}$   $\text{𐎠𐎢}$ . I strongly suspect, that the initial character of this name, which represents a word differing little, if at all, in signification from that above-mentioned, is the equivalent of  $\text{𐎠𐎢}$  when it stands alone. It,

however, does not admit a complement; thus belonging to a third class of ideographs to be presently mentioned.

11. Some characters represent words by themselves, or even combinations of words, being never used with complements, nor having any phonetic value, except in derived or compound nouns, of which the word originally represented is an element. Such is  $\text{𐎠𐎢𐎽}$ , *bab*, just mentioned, the Babylonian form of which, used in the cursive writing, is  $\text{𐎠𐎢𐎽}$ , which is obviously formed of two  $\text{𐎠𐎢}$ , *bā*s; that *bā.bā = bab*, see § 10. This is the primitive form of *bā*, used at Van and at Nimrud; and the various modifications which it underwent, all of which occur at Khorsabad, are easily traced;  $\text{𐎠𐎢}$ ,  $\text{𐎠𐎢}$ ,  $\text{𐎠𐎢}$ ,  $\text{𐎠𐎢}$ , the last being the Median and Babylonian form. The value of ideographs of this sort is often determinable from a comparison of different inscriptions which contain the same text. In 46.75\* we have  $\text{𐎠𐎢𐎽}$   $\text{𐎠𐎢𐎽}$  "countries" (see § 23); while in 43.86 we have, in place of these characters,  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$  *ba.bi*. The next character to this word in some of the inscriptions (e. g. 27.51) is an example of an ideograph representing two words. It is  $\text{𐎠𐎢𐎽}$ , which is equivalent to *fin nibi*, "all those." It is expressed in 43.86 by three characters  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$ , *fi.kin.nibi*. Of the last of these characters I shall have occasion to speak at length hereafter. The second is *kin*; after a vowel generally *yin* (see § 7, a); and *iyin = in*. The object of introducing this character, which may seem superfluous, is to indicate that the following character has its ideographic value (see § 14). Another character which represents two words is  $\text{𐎠𐎢𐎽}$ . It occurs 36.5; while in 40.6 we have  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$  *wā(ti).kin.nibi*, i. e. *wātin nibi*, "all the lands." The first character of this last group is an ideograph of the first kind, signifying "land," or "earth," with or without the complement  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$  *ti*; and also signifying *wā* or *mā*, which were not distinguished. It is the Median  $\text{𐎠𐎢}$  which occurs in the transcriptions of *Dāryawauf* and *Māda*.†


12. I come now to a class of ideographs which presents more difficulty than

\* When inscriptions are thus referred to, the first figure is the number of BOTTA'S plate, the second of the line.

† I am satisfied that the Median transcribers represented these names, not, as pronounced by the Persians, with short vowels, but with every syllable detached from the rest, and thereby lengthened. The Median words are  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$ , *Dā.ri.yā.wā.u.'s*,  $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$   $\text{𐎠𐎢}$ , *Mā.dā*.



any of the preceding. It consists of characters, which, having proper phonetic values, with which they may and do enter into the composition of ordinary words, express also ideas, the words denoting which have no phonetic relationship to their ordinary phonetic values. This, it must be admitted, is very puzzling; more especially when the characters enter with their peculiar values into derivative words, or into proper names assumed to be derived from the words ideographically expressed. We should not be justified, however, in refusing to acknowledge a fact, because its admission will render the task of deciphering more difficult than it would be if it had not been the fact. Those who cannot, or will not, see it, must find themselves involved in what they will feel to be insuperable difficulties, when they deal with the characters which admit of ambiguous values. To some persons it may seem the most satisfactory way of explaining this to refer to a parallel instance in our own system of writing. In that system *I* has a determinate value as a letter, with which it enters as an element into many words; but, besides this, it has an ideographic value, and is sometimes read "one," and sometimes "the first;" neither of which words has any connexion with the phonetic value of the letter. The use of ideographs was much greater among the Assyrians than among ourselves, but the principle is one with which we might be familiar, if we did not overlook the instances of its application with which we constantly meet. It appears to me, however, that there are two ways in which the existence of these anomalies may be accounted for. In a few instances the pronunciation may have changed, so that a character which originally denoted the initial sound of the word may have ceased to do so. In other instances the language may have employed synonymous words;\* the ordinary phonetic value may have been de-

\* It is possible, too, that the word from which the phonetic value is derived may be one belonging to a different language. I will, in a subsequent section, produce an instance, in which I believe that the ordinary phonetic value of a character, namely, *pā*, the value of , was adopted from a foreign language. This mode of proceeding may be illustrated by some of the abbreviations used in Irish manuscripts. The Irish letters were at first chiefly used in the copying of Latin texts. In Latin manuscripts, the letter *s* with a peculiar mark, which may be represented by *s'*, was used to express the word *sed*. In course of time the same mark was used in Irish manuscripts to express *akt*, the Irish equivalent of *sed*. And by a further progress, it was used to express this sound, when it no longer signified "but," but was a portion of a word of totally different meaning. Thus, *ts'* was used for *takt*, "to come." See O'DONOVAN'S Irish Grammar, p. 430. Mr. O'DONOVAN gives other similar instances.

rived from one of these, while the other was in most frequent use as the representative of the idea. I will produce what I believe to be instances of both of these.

13. The phonetic value of  $\mathbb{V}$  is  $\bar{a}$ , as is abundantly evident. Ideographically, it signified "son," which was also expressed by  $\mathbb{E}\bar{\mathbb{X}}$  and  $\mathbb{E}\bar{\mathbb{X}}\bar{\mathbb{A}}\bar{\mathbb{V}}$ . The Babylonian forms of the two last are used to express the filiation of Nebuchadnezzar, as the first is used to express that of Xerxes, of Darius, and of the Assyrian kings: the second is also used in the Third Persepolitan inscription D.; and frequently in the Babylonian contracts published by GROTEFEND. But, besides being used to express the idea "son" before his father's name, the last character is also used to express the middle part of the name of the father of Nebuchadnezzar, that part of this name which alone differs from the name of the son; and in this place the first character is interchanged with it on the bricks. From this it appears that  $\mathbb{V}$ , besides its value  $a$ , has a second value, namely, the word signifying "son." Now, the third of the characters given above is composed of the second and of a character with the value *wat*, or *ut*, which was a plural termination. It is natural to suppose that it properly represented this plural, which was used for the singular, by way of honour, in most cases where gods or kings were spoken of. Yet in the name of the father of the great Nebuchadnezzar, the first and last characters given above must be read as the second, namely, as the singular. The value of this appears for the Median to contain a dental. It occurs between *c* and *ri* in the name of Bactria. This dental appears to be followed by an *i* (not distinguished by the Medes from *a*), because two words, one signifying "I said," and the other "was said," are written, one with this character  $\mathbb{E}\bar{\mathbb{V}}$ , and the other with  $\bar{\mathbb{V}}\bar{\mathbb{E}}$ , *ti*, in a part of the word which appears to be radical; *ab.ti.ri.rā*, "I said," NR. 30; *ab.tir.ri.cā*, "was said," NR. 15.\* The character, being always used before syllables

\* I quite forgot this word, when I stated, in the note in p. 5, that there was no passive verb in the inscriptions that had been published. I was at the time thinking of the Median word corresponding to *tahyāmahya* at Behistun, and regretting that I did not know what it was. It is generally known that the terminations of the present and preterimperfect tenses in the different Indo-European languages show much greater conformity to one type than the aorists and preterperfect. Of similar forms to the above are *farivā*, "I possessed" (N. R. 13); which show that the initial *a* in the words before us was not an augment; and *cuficā*, "has been built" (?), in the eighth line of the Median inscription on the great wall at Persepolis, of which there is no Persian translation.

beginning with *n* or *r*, may be supposed to have terminated with one of those consonants, which indeed were very generally confounded. The Medes also confounded the different dental consonants, so that the exact value of the character cannot be determined from that class of inscriptions. They merely prove that it began with a dental, *without a vowel preceding*; that *a* or *i* followed; and that *n* or *r* probably terminated the word. From an Assyrian name, which I will hereafter explain, it seems to me certain that the initial consonant was *š*; and I read the whole word *šān*, observing that the Babylonians and Assyrians confounded the *n* and *r*, especially when final, as much as the Medes. The relationship of this to the Hebrew נ and Chaldean ר is obvious. Now in Arabic there is an *Elif* prefixed to the corresponding word, ا *ibn*. This suggests the supposition that *šān* was the original form of the word, and that the way in which 𐎶 came to represent it was by its being the initial character in this original form. This last is, I admit, a supposition only; but I consider it to be absolutely certain, that, besides its value as a phonetic element in words, which was *ā*, 𐎶 was used ideo-

The translation which I have given is WESTERGAARD'S; and it cannot be much astray. In the next line but one, this verb is repeated with the negative particle, which has the effect of displacing the final vowel; *kinna cufic*, "has not been built." Afterwards we have *cufiyā*, "I have built," which is not in the same tense as *farirā*; but the former is, I suppose, the preterperfect, the latter the aorist. Both these tenses occur in one verb; we have *kuttā*, "I have made" (D. 12), and *kuttārā*, "I made" (D. 13). A form analogous to *cufiyā*, namely *liluwā*, "I inscribed," occurs in the Van inscription of Xerxes, l. 24. The third person singular of the preterperfect seems to have terminated in *fā*; that of the aorist in *stā* or rather *ptā* (§ 7, a), while the plural terminated in *s*, or probably *ρ*; the vowel before all these terminations being the same as in the first person. Whatever may be thought of the terminations, some at least of the roots are manifestly Indo-European. Such is *du*, whence *duplā*, "he gave;" *far-irā*, answering to the Persian *āgarbyam*, "I took;" but in other places the verb corresponds to tenses of *darayāmi*, "I possess." The connexion between carrying, taking, and possessing, was more obvious in times of rapine than it is now. For the etymological connexion between the Sanskrit *dhrī*, the equivalent of the last-mentioned Persian verb, and which signifies "to carry" as well as "to possess," and *bhrī*, the known equivalent of *φέρω*, see BOPP, Gloss. Sans. p. 185. But the most remarkable correspondence is the verb in the text. Though it is translated by the Persian *ātaham*, "I said," it is exclusively used in speaking of the obedience of the subjects of Darius to what he enjoined, commanded, or gave in charge. It is thus the exact equivalent in meaning to *ἐπι-τελλω*; and is like it a compound verb, consisting of corresponding elements. *Ab*, the first part, is the Sanskrit *abhi*, Gr. *ἐπί*; and the remainder *tīli*, or *tālī*, is *τελλω* (for *τελιω*, as *ἄλλος* for *αλιος*).

graphically, as an element in proper names, with the value *dan*; and, as a word, with this value, and also, according to circumstances, that of the plural *danut*; and, I have reason to suspect, those of the feminine singular and plural also, whatever these were. I may add that it also represented the numeral vii.

14. The phonetic value of  $\overline{\text{𐎠𐎢𐎡}}$ , in Median  $\text{𐎠𐎢𐎡}$ , was *kar* or *yar*, the former generally when initial, or after a different vowel than *i*; and the latter after *i*. It occurs with this value in the word  $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$  *na.kar*, נכר, "a stranger;" and in  $\text{𐎠𐎢𐎡}$   $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$ , *Ba.kar.ru*, the name of the king of Egypt. It is inserted in some copies of an inscription between the two syllables *ri.ri*, while others omit it; compare 18.99 and 12.98. Here it must have the value *yar*. In like manner in Median. it occurs as *yar* in  $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$ , 'C.sa.yar.sā (or  $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$ , 'C.sa.yar.i.sā; so written to secure the *r* from being assimilated), Xerxes; and as *kar* or *qar* (see § 7 b, the final assimilated, for it can scarcely have been converted into *n*), in *Qa'.dā.rā*, Gandara, and  $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$   $\text{𐎠𐎢𐎡}$ , *Kar.dā'.c.f'.a'.sū*,\* Artaxerxes. It also, I have heard, begins the name of Cambyses. The initial character in the name of Thatagush is, I believe, not the same as this, but  $\text{𐎠𐎢𐎡}$ , *tā*, the Babylonian form of which begins the same name. Now, the ideographic value of this character is certainly "all," and we can have little hesitation in assuming, that the phonetic value was derived from the known Semitic word  $\text{𐎠𐎢𐎡}$ , which had this signification. Nevertheless, it is certain that a different word, signifying "all," was more generally used by the Assyrio-Babylonian tribes, and that the character before us is very often to be read *nib*, *nibi*, or *nayabi*. In the Third Persepolitan inscriptions, the word for "all," after a plural noun, is sometimes written in full  $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$ , *nay.ab.bi*, as C. 10, 21; at other times a single character is substituted for the first two, viz.,  $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$   $\overline{\text{𐎠𐎢𐎡}}$ , *nib*, D. 15, H. 24. In the great inscription at the India House, and the Assyrian inscriptions,  $\overline{\text{𐎠𐎢𐎡}}$  is used, sometimes alone, and sometimes with  $\overline{\text{𐎠𐎢𐎡}}$  for a complement; cf. X. 6. and VIII. 1. It appears, however, that

\* This name is only found on the Venice vase, executed in Egypt in a late age; probably in the reign of Artaxerxes Ochus. The penultimate character has been supposed by WESTERGAARD to be  $\overline{\text{𐎠𐎢𐎡}}$ ; but the wedges are much more numerous. I take it to be the Median form of the Assyrian character  $\overline{\text{𐎠𐎢𐎡}}$  of which the proper value is *az*; and by § 7 b, it may be represented by *ap* or *a'* before a consonant. I have only met with it in this place.

this is to be read *nib*, not *nibi*; because in VII. 50. a different complement is used, viz.,  $\text{𐎠𐎢}$ , *yab* or *ib*; and *bā* is used elsewhere. This is to be explained by supposing, that the singular was *nib*, and the plural *nibi*, or *nibu*. When the character before us is followed by a complement, or when it is preceded by  $\text{𐎠𐎠𐎠}$ , *kin*, i. e. *yin*, it must, I conceive, be read *nib*, or *nibi*; and indeed I should be disposed to give it that value whenever it represents the word "all;" though it is possible that the word *kal* was also in use as a synonyme of this.

15. As the admission of two values, one phonetic and one ideographic, to the same character, must appear extraordinary, I will give a third instance of it, which appears to me unquestionable.  $\text{𐎠}$  has phonetically the value *qi*; when preceded by  $\text{𐎠}$ , it would be natural to read the group *aq*, for the final vowel would be likely to be dropped. Yet it is certain that  $\text{𐎠 𐎠}$  is not *aq*, but, according to circumstances, *afib*, "who inhabits," or in the plural *afibut*, "who inhabit." It is distinctly interchanged either with  $\text{𐎠 𐎠}$   $\text{𐎠𐎢}$ , *ā.fi.yab* (cf. 8.21, 13.10, with 1.11, 15.11), or with  $\text{𐎠 𐎠}$   $\text{𐎠𐎢𐎠𐎢}$ , *ā.fi.bu.tu*\* (cf. 168.26 with 165.19); the former after a singular, the latter after a plural noun. In like manner  $\text{𐎠𐎠𐎠}$   $\text{𐎠 𐎠}$  is *ma.s'a.fib*, "a dwelling."† The two values of  $\text{𐎠}$  are, then, as a phonograph, *qi*, and as an ideograph "to dwell," *fib*.

16. It cannot be denied that this double use of characters is a source of great confusion, and that it greatly increases the difficulty of deciphering the Assyrian writing. But if it was really practised, as I consider it quite certain, it must be recognised as a possible source of error, and carefully guarded against. We must, in the case of each character, consider not only what value it had when a phonetic element in a word, but whether it did not also represent a word; and, if so, two new questions arise,—what was the meaning of the word? and how was it pronounced? In many instances certainly, perhaps in the majority, its value as a word did not contain its ordinary phonetic value. I have, I believe, answered these questions correctly as to the three characters last adduced; but as to several others, of which the phonetic value seems to me

\* I use *t'u* as indicating that the proper value of the character is *tu*, but that it is here to be pronounced *t*, according to the rule laid down in § 10.

† Or it may be *wasfib*, the initial character representing the first radical  $\text{𐎠}$ ; for it is plain that *wāfab* was the original root, and not *yāfab*. It is certain, however, that *w* and *m* were interchanged.

quite certain, I can only say that they were sometimes used as words, but with meanings and sounds that as yet are unknown. Such are  $\text{𐎶𐎠}$ , *ri*, and  $\text{𐎶𐎵}$ , *tu*, which are adjectives qualifying the noun  $\text{𐎶𐎶}$ , "property, riches," having distinctive, if not opposite, meanings.\* This last character is, I believe, only used as a word, and I would read it *natta*. The *n* represents the Hebrew  $\text{נ}$ , and the character which properly represents *ta* in the Assyrian inscriptions, has for its Aramæan correspondent generally *la* or *ra*. This word is, then, an apparent equivalent of the Aramæan  $\text{𐎶𐎠𐎵}$ ; differing from it only in its vowels.  $\text{𐎶𐎵}$  is also used for a portion of time, "a half-month," and, with  $\text{𐎶𐎶}$  prefixed (see § 19) for the name of a god, who seems evidently "the moon." See Nos. 23, 25, 56, of the "Oriental Cylinders," edited by Mrs. Cullimore, where the lunar crescent is represented over the god thus called. In the Van inscriptions,  $\text{𐎶𐎶𐎶}$  *na* is sometimes added, constituting a theme, which may be *Tu.na=Lunus*;† but I cannot regard it as certain that the initial character has in this name its ordinary phonetic value; nor can I identify any Semitic adjective with *tun*. I formerly confounded,  $\text{𐎶𐎵}$ , or  $\text{𐎶𐎶}$ , with  $\text{𐎶𐎶}$ , which in the Third Persepolitan inscriptions has the value *par*, or rather *far*. They have not been distinguished as carefully as they should have been by the copyists of these inscriptions; but I am now satisfied that they totally differ in value.

17. Some characters not only represent words by themselves, but in composition with other characters represent other words; the composition respecting the ideas and not the sounds. Thus  $\text{𐎶𐎶𐎶𐎶}$   $\text{𐎶𐎶}$ , the first word in most of the Assyrian inscriptions, is compounded of two, which signify "house, great," and which were read, when separate, *bit*, *rab*; but there is no reason to suppose

\* Or, as I have elsewhere suggested,  $\text{𐎶𐎶}$  may be here a determinative prefix; and the two characters which usually follow it, may be abbreviated names. In that case their probable meanings would be "gold" and "silver." I am not acquainted with any names of these metals which began with the syllables which these characters phonetically represent; but there is an ideographic connexion between "silver" and "the moon."

† The interchange of *t* and *ʃ* with *l* and *r*, in passing from one language to another, has been often noticed; and frequent instances of it are met with in these inscriptions; but as *t* was generally pronounced by the Van people as *f* (see § 7, *b*), which was confounded with *w* and *m*, it may deserve consideration, whether the Van *fun-as* was not cognate with the Greek  $\mu\eta\eta\eta$ , *M. G. mena*; *A. S. mona*; our own *moon*; and whether an etymological connexion is not thus established between these words and the Latin *luna*.

that the word made up of these two characters was read *bitrab*. It is probable that it had a sound of its own totally distinct. The meaning was, however, compounded of the meaning of these two. It was "a palace," or "public building." In like manner  $\text{𐎶𐎵} \text{𐎶}$ , "a daughter," is composed of two characters, which signify "a son,"\* *āan*, and "a woman," or the initial syllable of the word signifying "a woman," which I suspect to be *cā*. I am ignorant how this word should be read; but I think it plain that it was not *āan-ca*, nor *āan-cālat*, supposing this last to be the Assyrian word for "woman." Yet there is great danger of reading ideographic compounds in this erroneous manner; more especially when the ideographic elements are of the kind spoken of in the preceding section, having phonetic as well as ideographic values. The name of a deity, for example, is sometimes written  $\text{𐎶𐎵} \text{𐎶}$ , and sometimes  $\text{𐎶𐎵} \text{𐎶} \text{𐎶} \text{𐎶}$ . The values of the two last characters, as phonographs, are certainly *gu*,  $\text{𐎶}$ , and *yab* or *ib*; but I have little doubt that any one would commit a gross error who should consider the value of  $\text{𐎶}$ , and accordingly the name of this deity to be *guyab*, or anything like it. The two characters have ideographic values, as well as phonetic; and they here constitute an ideographic compound, consisting of two words, a title of the deity, or a periphrasis for her name (for I suppose that it was a goddess); while  $\text{𐎶}$  was the real name, or an abbreviation of it. In like manner  $\text{𐎶} \text{𐎶} \text{𐎶}$ , the name of another god, is interchanged with  $\text{𐎶} \text{𐎶} \text{𐎶}$ ; and a person would be very apt to suppose that  $\text{𐎶} \text{𐎶} \text{𐎶}$  was phonetically equivalent to the two characters used in its place. The value of this character is, however, *san*, or *θan*, which was the name of the god; probably the *Θᾶνος*, which Eusebius gives as the first part of the Assyrian name of Sardanapalus, and certainly the first element in the name of Sennacherib; while the two characters which replace it represent *words*; the first being *cin*, or *biat*, "a lord," and the second of value as yet unknown to me.

18. I have said that "lord" was expressed by *cin* or *biat*. Here is another source of difficulty. The same idea may be expressed by two or more words, and the character representing that idea may represent any of these.  $\text{𐎶} \text{𐎶}$  is replaced by  $\text{𐎶} \text{𐎶}$ , i. e. *ci.n'a*, in both the Babylonian and the Khorsabad inscriptions; and again,  $\text{𐎶} \text{𐎶} \text{𐎶}$ , i. e. *bi.a.t'a*, replaces it in the barrel inscription pub-

\* Or rather "a child," though it is used by itself for "a son." Sometimes it is used as an adjective in the sense of "small."

lished by GROTEFEND. The latter is clearly  $\text{𐎠𐎡}$ , with a different vocalization, however, from that of the Masorites; while the former is probably Indo-European, connected with *κύριος* and the German *herr*; *n* and *r* final are almost always confounded.\* The words for "god" are still more numerous.  $\text{𐎠𐎡}$ , "god," is interchanged with  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , *i.lu* (cf. I. 30 and Gr. 1, 11); † and in PORTER'S transcript the same characters occur, where the great inscription has the word "god" repeated to form the plural. Here we should read the word *ilu*. This word for "god" is Aramæan; and this value *il* is that of  $\text{𐎠𐎡}$  in the name of Babylon given in § 10. Again, at the beginning of the name of Nebuchadnezzar in the barrel inscriptions, we have the characters answering to  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , and to  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$   $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , used indifferently for the first element. This requires us to read  $\text{𐎠𐎡}$  in the first of these equivalents, *nab*, the following character being certainly *ic*; in the second,  $\text{𐎠𐎡}$  is a non-phonetic determinative (see below), and the two characters which follow are *nā.bi*. Now,  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , *n'.ab*, is the Median word for god, as written in the Second Persepolitan inscriptions. The first two characters are the same as in the Babylonian; the third is *ab*. But, thirdly, in the Assyrian inscriptions,  $\text{𐎠𐎡}$  is repeatedly interchanged with  $\text{𐎠𐎡}$ ; and this last is a compound of  $\text{𐎠𐎡}$ , *ad*, and  $\text{𐎠𐎡}$ , *dur*, for the whole of which the former element is used by abbreviation. This word for "god" seems connected with *āhura*, the Persian

\* In fact *l* is used for *n* in this very root; the divided noun "lordship," being  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , *ci.lu.t'i*. Both these words signify "lord;" but when  $\text{𐎠𐎡}$  is preceded by  $\text{𐎠𐎡}$ , the group must be translated "first;" see § 19 and the note thereon. Sometimes it signifies "first," when alone, and is then interchanged with  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , *ā-di*, which, of course, had that meaning. More frequently, however, this word is a preposition signifying "over, besides, to," &c., the exact equivalent of the Sansk. *adhi*; and I have met with  $\text{𐎠𐎡}$  representing this preposition. This may be illustrated by the use of the hieroglyphic *head*, which was read *āpi*, and which signified "first," "chief or lord," and "upon;" exactly as the cuneatic character does. It is possible that the two words were etymologically connected; for the Theban *āpi* would be pronounced *ābi* in Lower Egypt; and the Assyrians were very partial to the dental continuants *ā* and *t*, preferring them especially to the corresponding labials; while the neighbouring nations generally substituted for these sounds either the labials or *l*, *r*, *n*, or *h*, which latter again passed into *s* or *f*.

† In references such as I. 30, where the first figure is a Roman capital, it denotes a column of the great inscription at the India House; the other figure denotes the line. Gr. and R. denote the barrel inscriptions, in the Babylonian cursive character, published by GROTEFEND and RICH, and the two figures which follow denote the column and line.



word of like meaning, and also with *ālus*, a word used at Van; perhaps, also, with the Hebrew  $\text{אללן}$ . It seems to have been applied peculiarly to “the sun,” the various Indo-European names of which,\* as well as the Egyptian *atun*, seem derivable from this root; *ā* passing to *h*, and so to *s*; and *r*, *l*, and *n* final being interchangeable. In the Van inscriptions  $\text{𐎠𐎡𐎢}$ , there formed  $\text{𐎠𐎡𐎢𐎣}$ , is represented by a fourth word, written  $\text{𐎠𐎡𐎢𐎣}$   $\text{𐎠𐎡𐎢𐎣}$  in the theme; that is, I believe, *nā.βi*, though the value of  $\text{𐎠𐎡}$ , as *nā*, is not completely established. In the Van writing *b* is confounded with *w* and *m*, so that this may be a modification of the Median word.†

19. The preceding character for “god,” and several others, are used as determinative prefixes to words which are phonetically complete without them. Examples appear in the second of the two forms for *nabic*, in the Median *nab* and the Van *naβi*, all of which have this character prefixed; as has the name *San* in § 17, and many others.  $\text{𐎠}$  is used as a determinative before names of men. This signified “one,” and was capable of representing *ānā*,  $\text{𐎠𐎡}$  the two first syllables of the pronoun of the first person, *ā.nā.cu*, or *ā.nā.c'u*, the Hebrew  $\text{אנכי}$ , or the Coptic and Egyptian  $\text{ⲁⲛⲟⲕ}$ .‡ Both forms are used in the Third Persepolitan, the Babylonian, and the Nimrūd inscriptions. This character also represents *ārā* in the Median representation of

\* We have the Zend *hwarē* (in the vocative); Greek  $\text{Ἡῆλιος}$  and  $\text{Ἡἔλη}$ ; Sanskrit *sūras* and *sūryas*; Latin *sol*; M. Goth. *sunna*, *sunno*, and *sauil*; Lith. *saulė*. While this sheet was passing through the Press, I met with a striking confirmation of the analogies here pointed out. I received, through the kindness of the gentlemen in the Antiquarian Department of the British Museum, a paper impression of the sculptures on the obelisk found by Dr. LAYARD at Nimrūd, and now in the National Collection. In these sculptures Assur (*Ašur*, i. e. “the God,”  $\text{κατ' ἐξοχήν}$ ), is represented in the air, in front of the king, and over his prostrate enemy, in the same manner as *Āhura Mazdā* is represented in front of Darius at Behistun. Each of them is figured with wings, and in a ring; and what is evidently intended for the sun is connected with the Nimrūd deity.

† The value of  $\text{𐎠𐎡}$  as a phonograph is *an*; and accordingly it has been supposed, that *this* was the Babylonian name for “God.” Of this, however, I know no proof; and it no more follows from the phonetic value being what it is, than it would follow that *ā* was the Babylonian word for “son,” or *ei* the English for “one.”

‡ On the Nimrūd obelisk  $\text{𐎠}$  is used for  $\text{𐎠𐎡}$   $\text{𐎠𐎡}$ , *ā.nā*, as a preposition, signifying “to” or “for” (= Heb.  $\text{ל}$ ); and not in the sense of “one,” except in compound numerals. “First” is expressed by the ideographic compound  $\text{𐎠𐎡𐎢}$ ; and “one” would probably be expressed by some other compound.

the nominative of the Persian word *ārasahyā*; it being there used both as a determinative, and as this initial element of the word. At Van it has a different value, as signifying "one;" but its use as a determinative is similar.  $\blacktriangleright$  is used as a determinative in Median, being prefixed to words which signified place, as to those which correspond to the Persian *bumif*, "the earth;" *stānam*, "a place;" *witam*, "a house;" *patif*, "a tomb,"\* &c. This character is not used as a determinative in the Assyrio-Babylonian dialects, but in all of these it is used as a preposition denoting properly "at" or "in;" its value is *ad*, and it is not unlikely that this was an old noun signifying "a place." Indeed, there is some reason to think, that, besides having the phonetic value *ad*, it was used ideographically for  $\sum_{\sum} \blacktriangleright \gamma$ , *in. 'ā*, another preposition of like signification, with which it is interchanged in the inscriptions. This is according to § 14. But that  $\blacktriangleright$ , with its proper phonetic value *ad*, sometimes signified "in," appears from two considerations. In the first place, it is interchanged with  $\sum_{\sum} \blacktriangleright \gamma$ , *az*, the lapidary character answering to which is repeatedly used for  $\blacktriangleright$  in the great inscription at the India House. Again, in this inscription I. 19, we have two characters, *jā.nat*, while in a parallel place many bricks and barrels have the four characters, *jā.n'a.kin.na*; *kinna*† is another preposition repeatedly interchanged with *in*, and it is here clearly interchanged with *ad* also. The use of *jā.nat* to express *jan ad* (a participle and preposition, as it would seem), illustrates the total disregard of etymology which characterizes these inscriptions. To approximate to the sound by syllabic characters was all that the writers aimed at.

20. The characters used as determinatives by the Assyrio-Babylonians seem all to have represented words, and they had many of them phonetic values also. Thus  $\blacktriangleright \gamma \dagger$ , "a city" or "town," was *nir*,  $\gamma \gamma$ , in the plural  $\blacktriangleright \gamma \blacktriangleright \gamma \blacktriangleright \gamma$ ,

\* I translate the three lines at the close of the inscription on the tomb of Darius, not as a moral sentiment, but as an injunction to the reader not to violate his tomb.

† Perhaps the two prepositions which I have read *i.n'ā* and *kin.na* are radically the same. The word *kin* (Copt.  $\text{Ken}$ , Gr.  $\epsilon\nu$ , Lat. and M. Goth. *in*) may represent both; see § 7 (a); the gutturals being often prefixed arbitrarily to Assyrio-Babylonian, as well as to Median words. As to the second form, the  $\sum_{\sum} \blacktriangleright \gamma$  (or  $\blacktriangleleft$ , as it is often found), *na*, may be a complement to the  $\sum_{\sum} \sum_{\sum}$ , *kin*, which would thus be *ki* as well as *kin*. This would be similar to what certainly happens in the case of another preposition  $\blacktriangleright \gamma$ , *man*, "from" (see § 31).

‡ Also written  $\blacktriangleright \gamma$ ; in like manner,  $\sum_{\sum} \blacktriangleright \gamma$  and  $\sum_{\sum} \blacktriangleright \gamma$ ;  $\blacktriangleright \gamma$  and  $\blacktriangleright \gamma$ ;  $\sum_{\sum} \blacktriangleright \gamma$  and  $\sum_{\sum} \blacktriangleright \gamma$ ;  $\blacktriangleright \gamma$

*nā.ri*; which is interchanged with  $\rightarrow\star\uparrow\leftarrow$ ; and in some words it is used as the syllable *ni*, in the beginning of the word which it represents. This is prefixed as a non-phonetic determinative, not only to proper names of towns, but to words signifying classes of towns, as  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$  (74. 12), *bi.r'.ā.t'i*, Heb.  $\rightarrow\star\uparrow\leftarrow$ ;  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$  (75. 9), *nā.gu.(t)*, "strongholds," perhaps connected with Heb.  $\psi$ . In like manner  $\rightarrow\star\uparrow$ , which by itself signifies "a country," is prefixed as a determinative to names of countries; and it had also a phonetic value, probably *mā* or *wā*; for  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$ , *m'.ā.t'.i*, is substituted for this word (cf. 47.92, &c., with 53). It occurs as a phonograph in the word signifying "horses," which is also found in the Van inscription, and was probably Indo-European. This begins with  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$ , which character is sometimes used for the whole word, and also as a determinative prefix to other beasts of burden. The remainder of the word is  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$ ; i. e. *mā.rā*, or *wā.rā*; which may be the origin of our "mare," a word which occurs in all the Teutonic and Scandinavian languages, and which is in some of them applied to the species, without distinction of sex. Or we may suppose, that the initial character had the value *as*, or *ac*; which would give *as.wā.r'ā*, or *ac.wā.r'ā*, which might be the plural of another Indo-European word, having the required signification.\*

Other determinative prefixes are  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$ , "a people," and  $\rightarrow\star\uparrow$ , "a man;" which are prefixed indifferently to words signifying offices and conditions of

and  $\rightarrow\star\uparrow\leftarrow$ ; and many other pairs of characters, are written indifferently. The crossed wedges are probably the most ancient forms, for which wedges in the same directions, that did not intersect, might be substituted whenever the substitution would not confound the character with one essentially different. Thus  $\rightarrow\star\uparrow\leftarrow$  could not be written for  $\rightarrow\star\uparrow\leftarrow$  when the latter stands alone, because it might then be confounded with  $\rightarrow\star\uparrow$  or  $\rightarrow\star\uparrow\leftarrow$ ; but when it is joined to  $\rightarrow\star\uparrow$  in one character, it might be substituted for it. In the last of the pairs given above, the second form has an additional wedge; but several characters admit variations in the number of parallel wedges. See the table in page 7; and compare the different forms of almost all the characters there given.

\* Whatever may be thought of these etymologies, of which I much prefer the former, it is a matter of absolute certainty, that the group here cited signified "horses." On the Nimrūd obelisk it is connected with a well-executed representation of a horse. Another group beginning with this prefix  $\rightarrow\star\uparrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow\rightarrow\leftarrow$ , *ā.b.bā*, which in my Paper on the Van inscriptions (Journal Royal Asiatic Society, vol. ix. p. 439) I supposed to signify "elephants," appears from the obelisk to mean "camels."

men; the former is also prefixed to proper names of people, and may thus be interchanged with  $\text{𐤀}$ . The word  $\text{𐤀} \text{𐤍} \text{𐤍} \text{𐤍} \text{𐤍} \text{𐤍}$ , *pā. q'. ā. l'i* 𐤍𐤍𐤍𐤍 (Num. ii. 9), "governors" (145. 10), has besides this determinative a second, namely,  $\text{𐤍} \text{𐤍}$ , which by itself signifies "a lord." This is the only instance of two determinatives being prefixed to a word which I have yet met with. In hieroglyphics two are frequently used, and sometimes even three.

The usual prefix to words signifying place is  $\text{𐤍}$ , which is applied with great latitude, as in the common word  $\text{𐤍} \text{𐤍} \text{𐤍} \text{𐤍}$ , *agu. jā*, "a possession," Heb. 𐤀𐤍𐤍. Many words have  $\text{𐤍} \text{𐤍} \text{𐤍} \text{𐤍}$  before them; and this may in some instances have been a non-phonetic determinative. It was often, however, there can be no doubt, pronounced as *bit*, which begins so many Hebrew proper names.

21. The character  $\text{𐤍} \text{𐤍}$ , "land," concludes many words, and seems to have been in some instances a non-phonetic determinative, differing from all the others in being placed after the word instead of before it. Two words in 40. 8 conclude with this character; while in other inscriptions it is omitted and  $\text{𐤍} \text{𐤍}$  is prefixed. In these instances it can scarcely be doubted that it was non-phonetic. In other instances the same inference may be drawn from its being sometimes omitted. Thus in the name of Assyria it appears as the final character in the Nakshi-Rustam inscription, and generally at Khorsabad, but not in the more ancient inscriptions from Nimrūd.\* At Khorsabad, too, it is occasionally omitted, as in 3. 2, 165. 1, *et al.* It would seem, however, that some distinction was required between the name of the god and that of the country; and we may, therefore, infer, that the latter was called *mat. ad. ātur*, or *ad. ātur-wāti*, either the initial  $\text{𐤀}$ , or the final  $\text{𐤍} \text{𐤍}$ , being pronounced *as a word*. I may here add, that the name is not only written with  $\text{𐤍} \text{𐤍}$ , *ad. ātur*, combined into one character, but with  $\text{𐤍} \text{𐤍}$ , *ā. ātur*; and to this the determinative  $\text{𐤍} \text{𐤍}$  is sometimes prefixed. I have never seen it written  $\text{𐤀} \text{𐤍} \text{𐤍}$ ; but I should

\* On the Nimrūd obelisk it is sometimes used; as in the twenty-third line of the lower part of the first face. I would here observe, that the eighteen lines at the top of the first face begin the inscription; then come the eighteen at the top of the second, third, and fourth; and then the lower part of the first face followed by the lower parts of the others. The five lines which follow the eighteenth go round the obelisk, and are explanations of the five belts of sculpture over which they respectively stand.

not be surprised to find it so expressed in the Nimrūd inscriptions. In the name of Babylon, given in § 10, it seems as if this character should have its phonetic value *wā*; and it may have had it also in some other words, as  $\text{𐎶 𐎠𐎵- 𐎶𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , *Far.tu.wā*, "Parthia;" for which is substituted in one of the inscriptions  $\text{𐎶 𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , *ā.qa'.ri.a*, Hariwa of the Persian.

22. There is a name which occurs several times in the inscriptions of Nebuchadnezzar, which concludes with this character. As there is great reason for supposing it to be the name of Jerusalem, it is of peculiar interest; and I will, therefore, analyse it. It is written in all the following ways:

$\text{𐎶 𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , III. 36.

$\text{𐎶 𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , VI. 58.

$\text{𐎶 𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , PORTER'S transcript of III. 36.

$\text{𐎶 𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵 𐎶𐎠𐎵}$ , GROTEFEND'S barrel, the final character being omitted in one place.

The value of  $\text{𐎶}$  is known to be *wa*, while the two first characters of the last form are *bā.ar* or *b'.ar*; *b* and *w* are apt to be confounded. From the interchange of these syllables before  $\text{𐎶𐎠𐎵}$ , it follows that this last must represent a syllable beginning with *r*; which must be *ra* or *ru*, because this character is distinguished from  $\text{𐎶𐎠𐎵}$ , of which the value is known to be *ri*.  $\text{𐎶𐎠𐎵}$  is *si*, and  $\text{𐎶𐎠𐎵}$  *ru* or *lu*. These are interchanged with  $\text{𐎶𐎠𐎵}$ , of which the ordinary phonetic value is *pā*; but it must in this place represent a word, so as to be equivalent to the two preceding. It might indeed be supposed, that  $\text{𐎶𐎠𐎵 𐎶𐎠𐎵}$  constituted a single character with the value *pā*, as  $\text{𐎶𐎠𐎵 𐎶𐎠𐎵}$  constitutes a single character with the value *ar*; but the third form of the word shows that this is not the case; for  $\text{𐎶𐎠𐎵}$ , *lu*, a homophone of  $\text{𐎶𐎠𐎵}$ , is there placed after  $\text{𐎶𐎠𐎵}$ , as a complement to it. But as the same characters represent *u* and *wa* or *ma*, it is natural that the same characters should represent syllables terminating in *u* and in *am* or *av*; and this is found to be the case in other instances. We may then read the conclusion of the name either *si.lam*, or, giving a phonetic value to the last character, *si.lu.mā*. This was the word expressing the idea for which  $\text{𐎶𐎠𐎵}$  stood, perhaps "peace;" and *pā* may have been the initial sound in the corresponding word

of some other language.\* However this may be, the reading of the latter part of the name appears unquestionable; and as it is exactly that of the name of Jerusalem, and as the consonants of the former part agree also (the Hebrew initial  $\text{ׁ}$  being well known to represent  $\text{ׁ}$  in a variety of instances), I do not hesitate to identify the name with that of the Jewish capital.  $\text{𐤍}$  is *wa*, a homophone of  $\text{ׁ}$ , and  $\text{𐤒}$  and  $\text{𐤎}$  must be *ru* or *lu*. The whole name is *Wa.ru.fi.lu.mā*, or *fi.lam*, according as we sound or omit the final ideograph.

23. The plural is sometimes expressed by adding a phonetic termination; but the ideographic sign  $\text{𐤎}$  is sometimes added to the singular, which must be read as this termination, whatever it may be. Instances have been given in §§ 11 and 20, where the plural terminates in *i*, to which  $\text{𐤎}$ , *n'a*, is often added after the plural sign. In 2.17 the plural sign terminates a word, which in 8.33 ends in  $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$ , *u.t'i*. Sometimes an ideograph which represents a word is repeated to represent its plural, as  $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$ , for *narin*, "cities." Or, if a complement be used, the ideograph is doubled, and the complement added; as in  $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$ , *bā(?)bi*, "territories" (see § 10). When a noun and adjective were both represented by ideographs, the adjective which was placed last was alone doubled; but if the plural sign was added, it would be added to both. Thus "great gods" was expressed by  $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$ , or by  $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$   $\text{𐤎}$ , *ilu*, or *āduru*, *rabu*. The Assyrian plural terminated in *in*, or *ut*, or *ud*, which latter were used almost indifferently, the consonant being often dropped. The latter of these terminations was by no means a sign of the feminine gender. The Babylonian termination was *at* or *at*, for which we have sometimes *u*.

24. I will now give the analysis of the royal names which occur in the Babylonian inscriptions, and in the monuments of the later Assyrian dynasty that have been hitherto published. I begin with that of Nebuchadnezzar, the builder of the palaces, the ruins of which are in the neighbourhood of Hillah. His own name, and also that of his father, begins with *Nabic*, written in one of the two ways mentioned in § 18. It would seem that this name was pronounced *Nabu*; either through some such process as has converted the Anglo-Saxon *mearg*, *sorg*, into the English *marrow*, *sorrow*, or from the sound *c* or *k* being occasionally added to divine names, and yet not always pronounced.

\* Cf. Lat. *pax*, connected with *pango*, = Gr. *πάγωμι*, and Sansk. *paçāmi*.

The conclusions of the two names are alike also. They are sometimes expressed by a single character, for which we have elsewhere  $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$ , *u.gu.war*, or *uḡur*; this is sometimes expressed by  $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$ , which fixes the value of the last character as *ḡur* or *ḡar*. Between these two elements, the son's name has the following sets of characters used indifferently, viz.:

$\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$ , *cu.du.war.ray*.\*  
 $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$  or  $\text{𐎠𐎢𐎵}$  and  $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$ .

The first of these forms is purely phonetic, and gives the reading *cuḡurray*, or for the whole name *Nabic-cuḡurray-uchur*. In all the other forms an ideographic element appears. The double character in the second and third, like the plural sign in the instance cited § 20, indicates the termination *ut* or *ud*. This teaches us that  $\text{𐎠𐎢𐎵}$  represented a substantive, as well as the syllable *cu*. I am ignorant of its meaning; nor can I say whether it was pronounced *cu* or *cud*, giving for the plural *cud* or *cudut*; the terminal *ud* of the latter might, I have reason to think, be assimilated to the following *r*. The last syllable is *ri* or *ray*, as before, or *ru*. The fourth form is still more difficult to explain. I first observe that  $\text{𐎠𐎢𐎵}$ , and its undoubted equivalent  $\text{𐎠𐎢𐎵}$ , which properly signify "of," or "which" (like the Hebrew prefix  $\text{שׁ}$ , to which they correspond, one of them even in form), are used by abbreviation to express "son of," on two barrels and two gems of Nebuchadnezzar published by GROTEFEND, and also in the Khorsabad reverses. They thus acquire the ideographic value *ḡan* or *ḡar* (see § 13); and this must be the value in the present instance.  $\text{𐎠𐎢𐎵}$ , is properly *du*, but is often used for *nu*. This character twice written is found at the end of the names of a city and a tribe in Southern Syria.  $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$  (44.17), is *az.du.du*, Azotus  $\text{אזודוד}$ ; but  $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$   $\text{𐎠𐎢𐎵}$  (145.6), seems to be *lib.nu.n'u*, "Lebanon,"  $\text{לבנון}$ . On the other hand, the Median  $\text{𐎠𐎢𐎵}$ , which corresponds to the Assyrian  $\text{𐎠𐎢𐎵}$ , and to No. 211 in the lapidary list (not to 28 in that list, with which it is identical in form) has properly the value *nu*, but is often used for *du*, as is proved by the use of *dā* in other modifications of words in which this character is found. The fourth form of the

\* The third character is generally represented by a homophone of that here given, to which I have not yet found an Assyrian equivalent, and which cannot be represented by the types.

middle part of the name is thus *dan.nu*; giving for the entire *Nabic-dann'.uḡur*, which is nearer the Hebrew form נבכדנאצר than any of the others. The middle part of the father's name has been already given in § 13, and is equivalent to this last, *dan* or *dar*; and this agrees with the testimony of Ptolemy's canon, that the names of the father and son were alike, or at least that the son was sometimes called by a name identical with that of his father. I will only add, in relation to this name, that the form Nabopolassar, under which it appears in Greek, is probably derived from a dialectic variation. *Nabu* and *Nabic* were different forms of the name of the Babylonian deity which commences it; and *dan*, the second element in the father's name, and in the son's as occasionally written, was, *we know*, dialectically changed into *bar* or *ban* (בר or בן); and considering the affinity of *b* and *p*, as well as of *n* or *r* and *l*, we need not wonder if in other dialects this was replaced by *pol* for *pal*. The Greek σσ, and the Hebrew צ, were certainly used to represent *g*; and indeed I have no doubt, that this was the real value of them both.\*

25. The name of the builder of the south-western palace at Nimrūd consists of three elements, — or —→𐎶, 𐎠, and 𐎶 or —. The value of — is *ad*; and it is here used by abbreviation for —→𐎶, *aḏur*, which is also used itself in other inscriptions. The second element is *kā*, and the third is either the ideograph for *dan* (see § 13), or the abbreviation for *aḏur*. The name is thus, *Aḏur.kā.dan*, or *Aḏur.k'aḏur*. It is that which appears in the canon of Ptolemy as *Assapadivos*, or rather *Isapiridivos*; and in the Bible as אסר-חדן. There was a much more ancient king of Assyria who bore this name also. He built the north-western place at Nimrūd.

26. The father of this king built the palace at Kouyunjik, and is commemorated on the tablet at the river Lycus. He is the סנכריב of the Bible, and the Senacharib, or Sinecherim of Alexander Polyhistor.† His Assyrian name begins with —→𐎠<<< 𐎠 𐎠<<. The first two characters have been explained in

\* See, as to the Hebrew letter, note \* in p. 13.

† I have no means of referring to the Armenian version of Eusebius, in which the fragment of Polyhistor is preserved. CORY writes it in both these ways, and others also, and that of this king's son, Assordanius. In transcribing the names from Greek to Armenian, and again from Armenian to Latin, there is much liability to error, in addition to the ordinary danger of mis-copying proper names.



page 25 as *san* or *θan*; and it appears from the Second Persepolitan inscriptions, that this, or something very like it, was the value of <<<.\* The next character is *kā* and the plural sign converts this to *kāy'i* or *ki*. We have thus *sanki*, or perhaps *sankin*; for the *n*, which is sometimes written after the plural in *i*, was probably supplied in most instances. This seems to have been the name of a deity or deities; whether the plural was used to express actual plurality, or, as in other instances, for mere honour, is uncertain. The remainder of the king's name should then be a *word*, in order that the compound should be significant; and accordingly the single character which remains must express a word. On the strength of the Hebrew and Latin forms, we might assign it *riv* or *rim* as an ideographic value, whatever its value was as a phonetic element; on the principle laid down in § 12, and illustrated in the subsequent sections. I begin with laying down this principle, because I am not sure what the final character in the word really is. BOTTA gives it as  $\text{𐎠𐎥𐎢}$ , which is a variant of  $\text{𐎠𐎥𐎢}$  (Lap. 126), and which has for its phonetic value *su* or *θu*. A variation, however, in the position of a single wedge, will convert this into  $\text{𐎠𐎥𐎢}$  (Lap. 180), which has the value of *lu* or *ru*; and, final *u* being often expressed in the same manner as *av* or *am* (see § 22), this is as near the conclusion of the name which we want as we could desire. Now in the copy of a brick inscription from Kouyunjik, published by the Syro-Egyptian Society, after a manuscript of GROTEFEND, the first character is of this last form; and, if I recollect right, it is so in the copperplate in RICH's Koordistan and Niniveh. There is no doubt that M. BOTTA has altered many characters in his inscriptions, so as to reduce them to what he considers their normal forms. In most places he has done

\* The word "Persian" in the nominative is transcribed by  $\text{𐎠𐎥𐎢}$ , *Par. θā*. The last character is of doubtful origin, but its value is certainly *sā* or *tā*. Now <<< is used in its stead in the ablative; i. e. before the postposition *iccāfar*, "by" or "from. It is, therefore, *sā* or *tā*, with something added to prevent the *hiatus*; and, according to all analogy, nothing is so likely to be added as *n*. In the Kouyunjik inscriptions (of many of which I received copies through the kindness of Mr. BIRCH of the British Museum, while this sheet was in the Press), the beginning of this name is very variously written. The ideographic compound given in p. 25, as equivalent to the name, is sometimes substituted for it; the determinative prefix  $\text{𐎠𐎥}$  is sometimes omitted; a homophone of  $\text{𐎠𐎥}$  is sometimes used in its stead, and  $\text{𐎠𐎥}$ , *qi* or *yi*, is used for the plural sign. All these variations express precisely the same combination of sounds.

so correctly, but in some he has obviously blundered; and until I see a facsimile of an inscription belonging to this king or his son, or have the testimony of some person who has examined such an inscription with a view to this question, I must be excused for doubting what the final character really is. *At any rate*, I am persuaded it must be read *rav* or *ram*, or something like it; so as to produce the name which we are accustomed to write Sennacherib.\*

27. The father of this king was the builder of the palace at Khorsabad; and it appears that he was the first of his family who was king of Assyria, or at least that his father was not a king. The name of his father is mentioned on the bricks at Khorsabad, and on the reverses of certain slabs, which were first inscribed, and afterwards turned towards the brick wall behind them, a new inscription being cut on the other side. No titles of royalty are added to the father's name, which was on the slabs simply  $\rightarrow\uparrow \leftarrow \uparrow \rightarrow\uparrow \rightarrow\uparrow$ . On the bricks the last character is written  $\rightarrow\uparrow$ . I believe the true reading of this is *Ci.n'u.ab.atur*; but nothing at all like it is preserved in history. The name of the king is variously written. It consists of two parts. The first is  $\rightarrow\uparrow\rightarrow\uparrow\rightarrow\uparrow$ ,  $\rightarrow\uparrow\uparrow$ , or  $\leftarrow\leftarrow$ ; all which are used ideographically to express the idea "king." In the word signifying "kingdom" or "reign," which is derived from this, as מלכות from מלך, there is sometimes found one of these characters followed by  $\rightarrow\uparrow\uparrow$   $\rightarrow\leftarrow$ , *u. ti*, or by the last alone, *ti*. This indicates that the word terminates in *u*, or at least that it may do so. Now in this word there is often substituted for the initial character  $\rightarrow\uparrow\rightarrow\uparrow\rightarrow\uparrow$ , the last is *lu* or *ru*, and the first is *kin*; and as the last is omissible, the intermediate character must contain a final

\* It is possible, considering the manner in which *t* was interchanged with *r* and *l* (see § 28 and the note thereon), that *both* the characters here mentioned may have been used to express the last syllable, *tav* and *rav* being dialectic variations. In the Kouyunjik inscriptions mentioned in the last note, the name is written with  $\rightarrow\leftarrow\leftarrow\uparrow$ . On further consideration, I am satisfied that the value of this character was *siv* or *siu*; and that, though the rule given for the pronunciation of *s* as  $\theta$  or  $\rho$ , in p. 14, is correct as respects the Median language, and probably the Babylonian (at least as it was used at Persepolis), the *Assyrians* pronounced  $\rho$  in place of *s* when a vowel preceded it, and  $\theta$  when it did not. After nouns ending in *t*, it is used to express the affix "his." Thus,  $\rightarrow\uparrow\uparrow\uparrow \rightarrow\leftarrow\leftarrow\uparrow$ , is "his house," *bit. tiv*; this termination being elsewhere represented by  $\rightarrow\leftarrow\leftarrow \uparrow$ , *ti. v'a*. I should add, that in some of the Kouyunjik inscriptions this final character is replaced by  $\rightarrow\uparrow\uparrow \rightarrow\leftarrow$ , *ni. b'a*, given for the name *Sankinib*.

*r* or *l*. It is probably *nir* or *nil*, giving *kin.nil* or *kin.nil.lu* for the word signifying "king." In the window inscription of Darius, the king's name is followed by *kin.nil* and 𐎠𐎡𐎢, *li* (for *lin*, the plural termination), when other inscriptions have the ideograph for "king." The latter part of the name is sometimes written 𐎠𐎡𐎢, and sometimes 𐎠𐎡𐎢. Before I had seen above a few of the Khorsabad inscriptions, and when I was aware of this variation only from BOTTA's statements, I suggested that these names perhaps indicated different kings, in which case I observed the later form would be found on the bricks and on the reverses of the slabs; the former on all the inscriptions visible in front. This is by no means the case; both forms being alike used in all classes of inscriptions. Of course this conjecture falls to the ground, and the two forms of the name must be nearly identical in pronunciation. The value of 𐎠𐎡𐎢 is certainly *ri* or *li*. It occurs in the word *nā.ri*, "cities," which is written with the same characters as here in reverse order, and also begins the word *rigil*, "a foot soldier." The first form of the name is then *kinnil.li.nā*; while the last is *kinnillu.n'u* (see § 24). The distinction between them is just that the first, or more common, ends in *in*, while the second ends in *un*. These two vowels are often confounded.

28. In seeking to identify this king with one recorded in history, I first thought of the Chynilidan of Ptolemy's canon. This was on the supposition that the builder of that palace was a distinct person from the king commemorated in its principal sculptures. On finding that all the inscriptions belonged to one king, it still appeared to me, that the son of Esarchaddon might have borne the same name as his great-grandfather, and that thus the name might be Chynilidan. There is, however, no *d* in the name as it appears in the inscriptions; and the supposition that 𐎠𐎡𐎢, *li*, could be an abbreviation for *lida*, has no foundation to rest on. It afterwards occurred to me, that the name *Kinzir*, *Χινζίρος* of Ptolemy's canon, might better represent the name before us. The first syllable is as accurate as could be desired. The omission of the second vowel, and the substitution of *r* for *n* at the close of the name, can be no objections. The only difficulty that requires to be explained is the use of *ζ* to represent *l*. Now, however it may be explained, it is a *fact*, that these letters are among those which in passing from one language to another are exchanged. The Greek *όζω*, and the Latin *oleo*, are the same verb diffe-

rently modified; and so are the Greek ζάω (originally, as Bopp has pointed out, ζιFάω) and the Gothic *liban*. Again, the name which in the Persian inscriptions is written *Uwârazmiya*, is in these inscriptions 𐎧𐎠𐎡𐎢𐎣𐎤 (40. 18), *War.al.âi*; the last syllable being pronounced β*i* or μ*i* in some dialects, as it always is in the Van inscriptions. See § 7 (b). The explanation of this fact lies in the circumstance that both *l* and ζ\* are connected with *d*, *â*, or *t*. The instances of interchanges between each of the former and these last, in the different Indo-European languages, are numerous and well-known. I will add, that the Van 𐎧𐎠𐎡𐎢𐎣, *ââ.wa*, is the Greek λαFο, "a people;" and that the Assyrio-Babylonian 𐎧𐎠𐎡𐎢𐎣𐎤 𐎧𐎠𐎡𐎢𐎣, *ta.fû.n'a*, "a language" (used in the Third Persepolitan inscriptions with 𐎧𐎠𐎡, *nu*, for the last character, to translate the last part of the Persian compound *paruzanânâm*, "of many languages"), is the Heb. 𐤒𐤓𐤕. That the true value of the Assyrian character which begins this word is *ta*, and not *la*, appears from its commencing the word *ta.q'it*, "under,"† Hebrew 𐤒𐤓𐤕, and more positively from the use of the corresponding character 𐎧𐎠𐎡𐎢 in the Van language. This Van character is in the older Van inscriptions 𐎧𐎠𐎡𐎢𐎣𐎤, which again is used in some of the Khorsabad inscriptions as a variant of 𐎧𐎠𐎡𐎢𐎣; so that the correspondence of the two cannot be doubted. It is, then, by no means out of the range of probability, that the name *Kinilin* was in some dialects *Kinitin* or *Kinitir*, from which the transition to *Xwζip* would be easy.

29. It is not, however, sufficient to shew, as I have done, that the *Xwζipos* of the canon is a possible corruption of the name of this king. Before the identity of the two can be admitted, I must also shew that the time at which this king reigned was that at which Chinzirus is placed in the canon; and I

\* I do not lay any stress on the value of ζ; whatever were its proper value, the fact is certain, that it is the representative of δ, especially in connexion with ε; and, therefore, interchangeable with λ, *l*, which was also connected in sound with *d*, *â*, or *t*. I have, however, no doubt that the Hebrew 𐤒 and the Greek ζ expressed the sound of the English *j*. This I consider susceptible of demonstration; but it would occupy many pages, and is not essential to my present purpose. I think it probable, too, that the First Persepolitan 𐎧𐎠𐎡 had the same values; 𐎧𐎠𐎡 and 𐎧𐎠𐎡 being *j*, or the French *j*.

† As it is used as an abbreviation for this word, I have chosen it as the most proper word from which to determine its value. It is, however, much more commonly the representative of *la*. See what is said in the Appendix on the peculiar power of the consonant occurring in this and certain other characters.



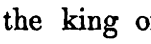
must account for his name being connected with that of Porus. The statement of the canon is, that Chinzirus and Porus reigned in Babylon sixteen years after the epoch, or in 731 B. C. This statement is in complete harmony with the inscription, and with what we know from other sources of Assyrian customs. I proceed to develop these assertions. And first we know, that it was the custom of the Assyrian kings, when they made foreign conquests, not to incorporate them with their ancient kingdom, but to retain them as subject or dependent kingdoms. Hence the title "king of kings," subsequently borne by the Persian monarchs and their successors. To this corresponded in the Assyrian inscriptions the title  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$ , *kinnil* (or perhaps *malek*\*) *lib. nu*,† which I should translate "principal king," or "independent king;" the phonetic value of  $\text{𐎠𐎢𐎽𐎢}$  is fixed as *lib* by transcription, if I recollect right, but I have

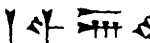
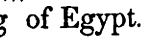
\* The ideograph for "king,"  $\ll$ , had two phonetic values. In the third Persepolitan inscription it is distinctly *ni*, either alone, or with a consonant that would assimilate with *f*. It is used after the syllable *man* and before *fi* in the Gentile name corresponding to *Hakâmanifiya*. See RICH, Pl. xix, last line (one of the copies of G.), where we have distinctly  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$   $\ll$   $\ll$   $\ll$ , *m'. an. ni(?) . fi*. In other inscriptions, as M. and NR., the *an* is omitted; while in others  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$ , *na. yas*, or *nis*, is substituted for  $\ll$ . In the Assyrian inscriptions it is used with the value *man* or *mā* as a substitute for  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$  or  $\text{𐎠𐎢𐎽𐎢}$ , the two characters, or single character, which it here follows. These three varieties are all used, when followed by  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$ , *n'. āyi*, to express the word *Man . n'. āyi*, "Armenian." (Cf. 146. 3 and 73. 9; also 48. 13 and 40. 15.) It appears to me that this anomaly may be accounted for by supposing that the phonetic value of  $\ll$  is derived from the word *malak*. The *l* is convertible into *n*, as in many other instances; and *ak*, *ay*, and *i* are interchangeable, or at least similarly expressed; just as *am*, *av*, and *u* are; see §§ 22, 26, and note to § 19. *Mani* before another vowel than *i* would be sounded *man*, just as *kinilu* before *i* is sounded *kinil*; see § 27. In both cases the final consonant is repeated before the vowel that follows. The use of this ideograph to express the last syllable of its value, the first being prefixed as a complement, is analogous to what is often met with in hieroglyphic writing. It appears to me, then, that, though  $\ll$  is *ni*, it is only so after *mā* or *man*; and I am, therefore, of opinion, that the city mentioned in the Van inscriptions, which begins with this character, was not Niniveh; the two first characters in it being to be read *man. nu*, not *ni. nu*.

† After one of the names in the Nimrūd inscription, we have  $\text{𐎠𐎢𐎽𐎢}$ , *na*, in place of  $\text{𐎠𐎢𐎽𐎢}$ , *nu*; and in connexion with this  $\text{𐎠𐎢𐎽𐎢}$   $\text{𐎠𐎢𐎽𐎢}$ , *rab. a*, instead of the ordinary *rab. u*. I at first explained this by supposing that the sovereign there named was a queen; but I learn from Mr. BIRCH, that in other copies of the same inscription, *u* is used after this name, while *a* replaces it after others. The two forms appear from this to have been used indifferently. That which ends in *a* seems to have been a dual; and it might have been used, like the plural, as a mark of honour.

lost my reference;\* and this is confirmed by the name of Libanon in § 24. The meaning is ascertained from several passages, in which principal towns are distinguished from towns under them. The former are called  $\text{𐎗𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣}$ , or more fully  $\text{𐎗𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣} \text{ 𐎠𐎢𐎣}$ , *narin libnut* (145.7; 76.1). In the latter passage we have thirteen "principal towns," with twenty-four towns which are under them. In conformity to the custom in which this title originated, we find (2 Kings, xvi. 7) that Ahaz acknowledged himself "the servant and son" of Tiglath-pileser, King of Assyria; that is, he became one of his dependent kings, as Hoshea did to Shalmaneser (2 Kings, xvii. 3). When a kingdom was subdued, a new king was sometimes appointed; thus when Nebuchadnezzar took Jerusalem, he carried Jeconiah captive, and made his uncle, Zedekiah, his dependent king; and it appears from the Great Inscription at the India House, which was executed at this period of his reign, that he regulated the affairs of Jerusalem, as if it were one of his own cities, though it continued to have a king of its own. In like manner, from the valuable fragment of Assyrian history written by Alexander Polyhistor, and preserved in the Armenian version of Eusebius's Chronicle, we learn that when Sennacherib first took Babylon, he made his brother king of it; after whose reign Acises reigned for thirty days; he was slain by Marodach Baladan, who reigned for six months, when he too was slain, and was succeeded by Elib. In his third year Sennacherib again conquered Babylon, and made his son Asordan their king. It is then just what we should expect would be the case, that if Kinilin conquered Babylon, he would not become the immediate king of the country, but would appoint a dependent king over it. Such I suppose was Porus, whose name is an evident corruption of the name Pul, borne by a former king of Assyria; and who was therefore, in all probability, an Assyrian himself. The canon would very naturally mention the two kings, the lord paramount first, and then the dependent king whom he imposed on the conquered country. Now that Kinilin became ruler of Babylon in the course of his reign is quite evident from the inscriptions. On the reverses, the inscriptions on which were first executed, and then rejected, he makes no

\* It is also used for  $\text{𐎠𐎢𐎣}$ , with its ideographic value *fb* (see § 15), after a vowel, when the *f* would be pronounced *r* or *l* (see the note in p. 26). An instance of this occurs 74.7; cf. 70.10.

claim to be sovereign of Babylon; and in the list of deities whom he mentions he does not include Nebo, the peculiar Babylonian deity. In the other inscriptions, however, Nebo is always mentioned among the gods; sometimes in the second place among three, as in 13. 6, and in the pavement inscriptions generally; sometimes in the fourth place among six, as in 153. 16; or in the fifth or sixth among seven, as in the bull inscriptions. The name of Babylon too is introduced immediately after that of Assyria, but with a different word from that which signifies "king" prefixed to it. The commencement of the inscription is "The palace of Kinilin, the great king, the independent king, the king of   -- (?) the king of Assyria, the , i. e. lord paramount of Babylon, the king of ———." Then follow the names of two countries, each of which had two different names, while a fifth name included the two. This territory was united to Assyria at a remote period, the son of its king having inherited Assyria, in right, I believe, of his mother. Not having yet seen more than a very few of the Nimrûd inscriptions, I cannot speak with confidence as to the particulars of this union of the countries. I observe, however, one pair of names, and the joint name in the Nimrûd inscriptions, and I suppose that these names had become antiquated, and that the other pair of names were those by which the regions in question were known in the time of Kinilin. It does not follow that he was actually king over them; the title might be retained, as in the case of "England *and* France," "France *and* Navarre," and other similar instances in modern European history, when there was no actual sovereignty enjoyed by the titular king.

30. I now come to the chronological branch of the subject. I have to show that 731 B. C. is such a date as might be assigned to the conquest of Babylon by this king, without inconsistency with any known fact. There are two tests of the correctness of this date which we may apply, viz, the date assigned by Manetho to the reign of the contemporary sovereigns of Egypt who are named in the inscriptions at Khorsabad, and the date of the reigns of his son and grandson, as deducible from various sources. I begin with the Egyptian kings. There is mention made in 145. 15 of , *Ba.kar. r'u*, king of , *Ma.g'u.ray*, i. e. Bocchoris King of Egypt. In 75. 6 the same name occurs the latter part being injured, but not so as to create any

doubt as to the reading. The last passage belongs to a very long inscription, of which there is unfortunately no second copy, and which is much mutilated. It contains a series of annals of the king's reign; and this passage refers to his seventh year. The former passage is in an inscription, which, though not in the form of annals, is historical; and, occurring almost immediately after the introductory matter, it seems to refer to the very commencement of the king's reign.\* Now, according to Manetho, as quoted by Africanus, the

\* Since the above was written, I have translated the two passages in which the name occurs; of which name, by the way, the initial syllable is rather *pa* than *ba*; and in fact the Egyptian name was supposed by CHAMPOLLION to be Pe-Hor. The former passage is "The tribute of Bocchoris king of Egypt . . . . . I took." The word for "tribute" is *mā.ā'.at.tu*, the Aramaean 𐤌𐤀𐤁𐤕, precisely; and the verb is *ag.qas* or *av.qap*, which may be deduced either from 𐤀𐤂𐤒𐤍 or from 𐤀𐤁𐤒𐤍, the Aramaean equivalent of 𐤀𐤁𐤒𐤍. As the initial character in this word generally represents either *ā* at the beginning of verbs quiescent in the first radical or *am* before a syllable commencing with *m*, the latter etymology is preferable; though I think there are unquestionable instances of its representing *ay*, from which *ag* was scarcely to be distinguished. Between the word "Egypt" and the verb, which (as is generally, though not universally, the case) concludes the sentence, we have a word expressing the tribute of Bocchoris, which begins with the determinative prefix for "female." It is long, and may have been a compound; perhaps it signifies "eunuchs," but I have not yet been able to analyze it. We have then the names of some other countries, and their tribute; of which four articles are named, "gold, horsemen(?), horses, and camels(?)." The second and fourth articles are doubtful. I have now positive proof, that the groups to which I assigned the values "gold" and "silver" in the note in p. 24, really signify these precious metals. The latter is an ideographic compound, made up of the ideographic signs for "treasure" and "the moon;" and I have observed that in PORTER'S Transcript this ideographic compound is used where the inscription at the India House has 𐤌𐤀𐤁𐤕𐤁𐤕, *c'.az.pā*. Compare the last two characters in l. 14 of the transcript with III. 58. The consonant, which I have hitherto represented by *z*, corresponds when terminal to one of the Sanskrit palatals, or to the Hebrew צ, ץ, or ץ; it depends on the following consonant, which of these it should represent. See the Appendix. It is here the last of them, as in the name *Wīstāspa*; and the word is clearly the Hebrew קספ, "silver," in its Aramaean form. Added to this, the word occurs repeatedly, along with the other word "gold," in the Nimrūd inscriptions, where tribute and donations to the gods are mentioned, preceded by numerals and words signifying weights. Thus, in the Nimrūd inscription of Kinilin, which he cut over a defaced inscription of the more ancient Esarhaddon (see § 25) we have in line 25, eleven talents, 𐤁𐤕𐤁𐤕𐤁𐤕, *tic.un*, and thirty 𐤌𐤀𐤁𐤕, *mā.nā*, of gold. The last word is obviously the מנא, or *maneh* of the Hebrews; and the thirty *mānā* were probably half of the *ticun* (R. תכנ), which would thus be a talent. In the other passage the name of Bocchoris occurs at the commencement of a sentence, having only the word *šā* before it, which must



twenty-seventh dynasty commenced 527 B. C. Africanus says, that Cambyses reigned six years in Egypt; and this is confirmed by an inscription in the Cosseir Road, first made known by BURTON in his *Excerpta Hieroglyphica*. Africanus assigns 150 years and six months to the twenty-sixth dynasty; and though he certainly errs as to the lengths of some of the later reigns, it is probable that he is correct as to the total. This would give 677 for the expulsion of the Ethiopians. Africanus allows forty years for the Ethiopian dynasty, and six for Bocchoris, who preceded them, and who would, therefore, have reigned from 723 to 717.



31. Before Bocchoris Africanus places Zit,  $Z\dot{\eta}r$ . Now in the Khorsabad inscriptions there is frequent mention made of  $\text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗}$ , *Gi. t. ā*, king of  $\text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗}$ , *u. waf*(land); Gita, king of Kush, or Ethiopia, whom I take to be no other than the Zit of Africanus. The softening of the hard *G* to *Z*, especially if this *Z* had the value of *J*, can require no remark. We know that Africanus wrote  $\Sigma$  for the initial character in the  $\text{Χεόψ}$  of Herodotus, and that in other instances hard sounds were softened by the Greeks of the age of Africanus, and those which preceded and followed it. The mode of reading the name of this country requires more to be said in justification of it. The value of  $\text{𐎗} \text{𐎗}$  is properly *ma* or *man* in the sense of "from."\* It

signify "when." The word before this, which I have given in § 15, and which I formerly supposed to signify "a dwelling," is a verb, "I made to dwell." The inference, then, which I formerly drew from this passage, that Bocchoris was residing out of Egypt, being driven therefrom by the Ethiopians, must now be abandoned.

\* In 74. 9, after the name of a single city, we have  $\text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗}$ , *man . u . ab . bi*, "out of it I brought." In 147. 5, after four names of cities, we have  $\text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗} \text{𐎗}$ , *man . u . n' u . ab . bi*, "out of them I brought." The variation in the mode of expressing the preposition does not depend on the affix which follows it; for in 147. 3 we have *man . u*, "from it," with the *n* expressed. The affix *un* is sometimes expressed by *u . wan*, in place of *u . n' u*, which I mention in order to show how cautious we ought to be in supposing that characters which are interchanged are equivalent. *wan* and *nu*, *war* and *ru*, are interchangeable in certain cases, but by no means so generally. The use of  $\text{𐎗} \text{𐎗}$  in place of  $\text{𐎗} \text{𐎗}$ , to express the affix, was long a great source of perplexity to me. I was long under the impression that the former was identical with the Van  $\text{𐎗} \text{𐎗}$ ; and I accordingly valued it as *ā*, though I felt it impossible to account for some Babylonian forms on this supposition. In the ancient Nimrūd inscriptions, however, from the characters of which those used at Van are derived, I find that  $\text{𐎗} \text{𐎗}$  is a variant of  $\text{𐎗} \text{𐎗}$ , *nā*. The Van people,





represents this preposition with or without a *na* as its phonetic complement; and, which is very curious, *with* this phonetic complement, i. e.  $\text{𐎠𐎢𐎽}$   $\text{𐎠𐎢𐎽}$ , or  $\text{𐎠𐎢𐎽𐎠}$ , it is used in this proper name, as well as in that of Egypt already given, to express the simple *ma*, *wa*, or *u*. This is analogous to the use of *danut* to

it appears, confounded *n* with *d*, *đ*, as they confounded *m* with *b*, *v*. The value of  $\text{𐎠}$  being thus left to be determined by Assyrio-Babylonian evidence only, I could have no hesitation in making its final vowel *u*; because it is used to express the third person plural of the verb "to make;" V. 50 and *passim*. The consonant with which it begins must be that which terminates  $\text{𐎠𐎢𐎽}$ ; because this is the final character of the same verb in the singular; compare IV. 17. I have hitherto represented this character by *wat*; but see Appendix. In the latter place we have *a. bu. wat*, "I make or made;" in the former we should have for "they made," *ya. bu. tu*. This change involves that of the value of  $\text{𐎠𐎢𐎽}$ , which was equivalent to  $\text{𐎠𐎢𐎽𐎠}$ , cf. 40. 44 and 44. 35. It must, therefore, be *tu. r'u*; and this again requires that  $\text{𐎠}$  should be valued *primarily* as *at* (although it is often interchanged with  $\text{𐎠𐎢𐎽}$ , which had the value *as*), and  $\text{𐎠𐎢𐎽}$ , as *atur*; the same consonant occurring in all of these. To come now to the affix "his;" it appears to have had two forms, answering to the Hebrew  $\text{וְ$  and  $\text{וּ}$ , both of which were attached to the noun when made to terminate in *i*. The one form was properly expressed by  $\text{𐎠𐎢𐎽}$ , and would give *i-tu*; the other by  $\text{𐎠}$ , and would give *i-w*; pronounced as *iv*, or as our final *ew*. The plural affix "their" was formed by adding to the singular  $\text{𐎠𐎢𐎽}$ , *nu*, or  $\text{𐎠𐎢𐎽𐎠}$ , *wan*, either of which, when preceded by *u*, would give *un* (= *u. wan* = *u. n'u*). We should thus have the two forms *i-tun* and *i-un*. The two characters being thus used as equivalents in the affix, it was not unnatural to use one of them instead of the other in other positions; and thus  $\text{𐎠}$  seems to have acquired the ideographic value *tu*, in addition to its proper value *u* or *wa*. It is possible that it was so used in the transcription given in the text, the nominative of the Persian word being represented in place of the accusative. On the other hand,  $\text{𐎠𐎢𐎽}$  is sometimes used when there should be no *t*; as in  $\text{𐎠𐎢𐎽𐎠}$ , 147. 2. *San. u. t'i*, a verbal noun signifying "change." In Hebrew, it would be  $\text{שַׁנִּיתָ}$ ; and the introduction of a *t* or *s* before the *u* would be contrary to all analogy. Other inscriptions use  $\text{𐎠}$ , which seems more correct. That the masculine affix did not always contain *t* is proved by  $\text{𐎠𐎢𐎽𐎠}$  being used to express the final *t* of feminines plural, and of such singulars as *bû*, "a house," in addition to the affix. See note in p. 36. While I am on the subject of these affixes, I may as well state, that I find that I have committed an error in representing by  $\text{𐎠}$  the initial character in the first two forms of the name given in p. 31; I should have used  $\text{𐎠𐎢𐎽}$ , which is interchanged with the two characters *b'ā. ar*, that begin the fourth form, in the Nimrûd inscriptions, precisely as it is here. This was the Third Persepolitan  $\text{𐎠𐎢𐎽}$ , *bar*, used for the first syllable of the name of Persia; which occurs on the Nimrûd obelisk, written with the characters that precisely correspond to those used at Persepolis; and it was also the Median  $\text{𐎠𐎢𐎽}$ , which is used in the same name. This correction certainly greatly diminishes the probability that the name in question was that of Jerusalem.

express *dan* (see § 13), and to the use of expletive characters by the Egyptians, as I explained it in a former paper.  is repeatedly interchanged with , of which, if of any character, the value is properly *u*; but in fact, *u*, *wa*, and *ma*, are absolutely undistinguished. Their indiscriminate use is proved, among other ways, by the curious, and I believe unique, transcription of a Persian word, not a name, into Babylonian characters, which occurs in the Third Persepolitan inscription, D. 11. Here the Persian word *wisadahayum* is expressed by

  
*wa . q'ā . yaz\* . ad . d'ā . ā . qā . ya . w'a . m'a.*

Such combinations as *aq'*, i. e. *ay'* for *i*, and *aw'* for *u*, are common. The use of the same character for syllables containing *q* and *y* has been already pointed out in § 7 (a).

The combinations of characters here used for *āqā* (*aha*), when a separate word, represents  "a maritime district," (5.10.) But the great point for which I produce this transcription is the use of , the peculiar value of which is *u*, the preposition, to represent *u* or *wa*; while , generally used for the affix *l*, is here the representative of *m*. This places it beyond a doubt, that in practice no distinction was made between these sounds. They differ in use as *u* from *u*; and  was perhaps used in this word because it is generally a final, though by no means necessarily so; but in value they are not distinguishable. Many persons will think it a most extraordinary thing, that I should identify two names beginning with the same character, with Mizraim and Cush; and it may, perhaps, be represented as a proof that my system of reading is erroneous; but the objectors will do well to recollect, that in the Second Persepolitan writing, the names of Media and Chorasmia begin with the same character, as must be known to every one who has paid any attention to these inscriptions; nor is this more inconsistent with propriety than that the names of Cambridge and Cirencester should begin with the same letter, when the initial sounds are so completely dissimilar. There are persons who seem to expect that ancient

\* The terminal sound in this character is that described in the note in p. 42, as occurring in *cazpa*, "silver." Sounds of this class are all derived from gutturals, which generally represent them in the cognate languages. Accordingly, *visa*, the Persian word before us, is the Greek *φοῖκος*.

languages were all written on strict phonetic principles; and who think that a decipherer, who, finding that they were not so, represents them as not being so, may be fairly refuted by ridiculing the phonetic absurdities of the system which he represents as existing. Such persons, however, should look to their own language; and, be it English, French, or German, it will be easy to point out in it absurdities fully as great as any that were committed by the ancient Assyrians. But to return from this digression:—The second character in the name before us is *waf*, the final in “Darius,” for which is often found  $\text{𐎠𐎡𐎢}$ , the initial in “Hystaspes,” which I take to be *wat* or *ut*.\* The use of *U. waf*, to

\* Of these two characters the latter is *us* or *was*; the final *s* being, however, often pronounced as *d* or *r*; the former is *vas*, with a consonant that could not pass into *u*. This confirms the Masoretic punctuation of the name of Darius, which is  $\text{דָּרְיָוֶשׁ}$ , *Dārayāvaf*, according to the notation I employ. The pronunciation is given by Strabo as  $\Delta\rho\rho\acute{\iota}\kappa\eta\varsigma$ , in which it has been supposed by, I believe, all writers on the subject, that  $\kappa$  is a mistake of a copyist for  $\nu$  or  $\beta$ . The latter is MICHAELIS’s opinion; and it is the more probable of the two. Can it be possible, however, that the  $\kappa$  is correct? There can be no doubt, that in the time of Strabo,  $\kappa\eta$  was pronounced as *gi*. I have given abundant proof of this in my paper on the Egyptian alphabet. This would give *gis* for the value of  $\text{𐎠𐎡𐎢}$ ; and as this is resolved into two elements, of which the former is  $\text{𐎠𐎡}$ , the value of this last would be *gi*, in place of *ba*, which I have hitherto made it. This would be a very convenient hypothesis for the reading of the name of a people which follows that of the Tyrians, in the inscription on the altar at Nimrūd; and which consists of this character followed by *du . nā . yi*; but I cannot yet venture to read the word so. Many names of countries occur in these inscriptions, which are not to be found in any ancient writings, and this may be one of them. It occurred to me, that the people here intended might be those inhabiting the  $\text{יִשְׂרָאֵל}$  of the Hebrews; which name is written  $\text{ܝܫܪܐܝܝܠ}$  in the Samaritan, with  $\text{إِسْرَائِيل}$  in Arabic, and  $\tau$  in Greek. Or else the name in question may be that of some remote people. That which follows it is the *Hariwa* of the Persian, the ancient *Aria*, which is given in p. 31, as substituted for the adjoining Parthia. In fact, however, I believe the character here referred to is only found in this name by an error either of the sculptor or copyist. What is really interchanged in it with *was* or *waf*, is  $\text{𐎠𐎡𐎢}$ , *waz*, *z* having the value mentioned in the note in p. 42. Now, as the Ethiopians of Africa could only come in contact with the Assyrians through their being masters of Egypt, and as it seems not to have been the fact that they were masters of it (see note in p. 42), we must look out for some other country as that of *Gūa*. It seems to me not improbable, that we have here the name of Susa, which was in the Persian *uwaja*, or rather, I believe, *uwaza*. Of the Babylonian name of this country, Major RAWLINSON says (Journal of the Royal Asiatic Society, vol. xi. p. 89), that it had “two distinct forms, one of which may possibly correspond with the Persian *’Uvaj*, but the other is certainly independent.” I should be disposed to read the form which occurs at Nakshi-

express Cush, is strictly in conformity with what we know to have been the practice of the nations who used the cuneatic characters. The initial aspirate or guttural was omitted or prefixed at random, just as *h* is at this day by the Londoners. The last character in the name was probably pronounced as *wati*, It signified "land," and was analogous to the last syllable in "Scotland," or "Angleterre."

32. Now the fact of a king of Cush, or Ethiopia, having any dealings with a king of Assyria, separated as these two countries were by Egypt, proves that Egypt was at this time subject to the Ethiopians. The king of Ethiopia could not have carried on war in Syria, as these inscriptions prove him to have done, unless he was sovereign of Egypt. We must then suppose either that Bocchoris reigned in Egypt as a dependent king under Gita; or, what seems more probable, that he was at this time only titularly king, and living in exile. If this last be the case, or indeed on either supposition, the six years which Africanus assigns to Bocchoris must represent a period when he reigned as actual sovereign

Rustam, *su.wā.cu*, though the initial character is doubtful. Of the Behistun form, I, of course, know nothing. Now it has appeared to me remarkable, that the Gentile name derived from this country introduces after it the character for *cā*, being *u.waz.cā.yi*; which, according to the rule laid down in the Appendix, should be pronounced *Uçcāyi*, with the palatal *s*, which I represent by *ç*; while the name of the country itself would be *Uç* or *Uj*. This Gentile name may be the *Οὔξιοι* of the Greeks; the *ξ* being used for *σκ* or *σχ*, by the same metathesis which substitutes *ζ* in so many words for *σδ* (compare *ξηρός* and *σχερός*; *ξυράω* and *shear*, A. S. *sciran*; Germ. *scheren*, O. H. G. *skerran*). On this subject I pronounce no positive opinion. It may be that BOCHART's hypothesis of an Arabian Cush, of which Zerah was king, may be correct; and that this may have been the country of Gita; but I see difficulties which are scarcely surmountable in the way of admitting this supposition. It would be in favour of the Susa theory, if the final character in the name could be read *kwā*; and this is by no means impossible; for the latter part of the name *Harauwatif* was probably the Assyrio-Babylonian *wāti*, "earth" or "land." Now we have this name expressed by the Greek *Αραχωσία*, and in Zend the Persian *w* is represented by a letter which seems to have the power of *k* (BURNOURF writes it *q*, and BOPP *kh*), and which is etymologically equivalent to the Sanskrit *sv*; originally, therefore, it must have included a *w* in its value. All these are, in fact, the *digamma* of the Greeks; i. e. our own whispered *w*, as heard in "what," "which," &c.; a sound which is unpronounceable by foreigners, who often say *f* in its stead, and whose best attempts do not go beyond *hw*, from which to *kw* the transition is easy. We have only to suppose that the initial sound in  $\Xi$  (with which the character in question, when used as a phonograph, is interchanged) was *wh*, as heard in the preceding English words; and its passage to *m* on the one hand, and to *hw*, and so to *kw*, on the other, is accounted for.

of Egypt, after the expulsion of the Ethiopians. These would naturally regard him as a rebel; and this would account for his being burned alive by them on their reconquest of Egypt under Sabbaco, at the expiration of his six years' reign. Now as Gita seems to have ruled over Egypt during the whole period of the inscriptions, we may infer that they do not refer to a period later than 723 B. C.; which is quite consistent with the acquisition of Babylon being in 731 B. C.\*

33. An objection may, however, be raised against the foregoing conclusion. It must be admitted, that the duration assigned by Africanus to the twenty-sixth dynasty is shorter than is consistent with the received biblical chronology; because Tirhaka, the last king of the preceding dynasty, appears from the scriptural narrative to have reigned not long subsequent to the fourteenth year of Hezekiah, which is generally reckoned to be 713 B. C. According to Africanus, however, Tirhaka would have reigned from 695 to 677. There are two ways by which the synchronism which it is necessary to establish between the reign of Tirhaka and the middle of the reign of Hezekiah may be produced. The most obvious one, and what has been adopted by, I believe, all previous writers, is to increase the interval between the accession of Tirhaka and that of Necho, Amasis, or Cambyses, any of which may be regarded as an established epoch. This has been done by Eusebius, and all subsequent writers. Eusebius not only extends the duration of the reigns enumerated by Africanus from 150 to 153, 155, or 156 years (the copies vary), but prefixes to these reigns that of "Ammeris, the Ethiopian," to whom he assigns twelve or eighteen years. It is evident that this accomplishes the desired object; but if the name of Ammeris be that of an Egyptian sovereign at all, it is that of queen "Amunerit," who reigned over a part of Egypt during the first three reigns of this dynasty. This is the view taken by LEPSIUS and BUNSEN. There is no monumental authority for considering her as the predecessor of these kings; and there can be little doubt that to make her such was a device of Eusebius, in order to satisfy a supposed chronological exigency. The means adopted by BUNSEN to attain

\* If, as I now think, Gita was not the king of Ethiopia, but of Susa, or some other Asiatic country, this paragraph is erroneous. In that case, we should rather adopt Eusebius's arrangement of the kings of this period. He omits Zit (of whose existence I find, on inquiry, there is no Egyptian monumental evidence), and gives a reign of forty-four years to Bocchoris.

the same end are something different. He increases the duration of the twenty-sixth dynasty from the 150 years assigned to it by Africanus to 160, which exceeds the longest interval in any of the copies of Eusebius, if the fictitious reign of Ammeris be taken away; and he then adds ten years more to the reign of Tirhaka, in order, as he says, to convert the forty years assigned by Africanus to the Ethiopian dynasty into the fifty assigned to it by Herodotus.\* By these two assumptions he throws back the accession of Tirhaka to 715 B. C., so as to produce the required synchronism; but the assumptions have little or nothing to recommend them. It is, therefore, worth considering, whether the synchronism may not be brought about in a different way, merely by correcting the received biblical chronology.

34. The correction which I propose is, to reduce the reign of Manasseh from fifty-five to twenty-five years, which would substitute 683 or 680 B. C., for 713 or 710 B. C., as the date which falls in the reign of Tirhaka. This would be in perfect agreement with the Egyptian chronology as collected from Africanus. It is also in itself a much more probable reading; for although reigns of fifty-five years have occurred, it must be admitted that they are of very rare occurrence. The fact of the other reading being found in our present copies of both Kings and Chronicles, is not conclusive evidence that it is genuine. The reading "twenty-five" for the age of Hezekiah at the commencement of his reign is found in 2 Chron. xxix. 1, as well as in 2 Kings, xviii. 2; yet it is manifestly an error, for it would make Hezekiah to have been born when his father was only eleven years old. See 2 Kings, xvi. 2. It was the practice of transcribers of the Bible, both of the original and of the versions, to correct what they deemed errors in dates; and when an erroneous reading had once gained currency, the transcribers would soon make it almost universal. Now, the introduction of the erroneous reading in question is easily accounted for by the great resemblance between the numeral letters 𐤁, fifty, and 𐤂, twenty. In the ancient Hebrew characters, these two letters are scarcely to be distinguished. Compare them in the third plate of GĒSENIUS's "*Scripturæ Phœnicæ Mo-*

\* Herodotus assigns this whole period to the single reign of Sabbacon. The account which he gives of this reign, and of the events which preceded it and followed it, are admitted by all modern writers to be undeserving of the slightest credit. It is astonishing, therefore, that any reliance should be placed on his chronology of the period.

numenta," in the columns marked "Hebræorum in numis," and "Samaritanorum in codd." The third of the four forms of the J which appears in the former column is very easy to be confounded with the J. It must be admitted that the versions generally do not support this reading; it is, however, found in the Arabic version of Chronicles, which was taken from the Peshito Syrian; and this is evidence that it was once the reading of the latter version, though the transcribers have caused it to disappear from it.

35. It thus appears, that the proposed reading is in itself much the more probable of the two; that there is some little external evidence in its favour; and that, supposing it to be genuine, the origin of the received reading is easily accounted for. It is doubtful, however, whether there is a sufficient exigency to warrant the admission of a reading for which no more than this can be said; inasmuch as the copies of Manetho differ, and an error in *his* numbers is more likely to have occurred. There is, however, Assyrian and Babylonian chronology, as well as Egyptian, by which the two readings can be tested; and seeing that these are still more decisively than the Egyptian in favour of the reading which I have proposed, I can no longer hesitate to adopt it. It appears from Ptolemy's canon, that Assaradinus became king of Babylon in 680 B. C. Now it appears from the narrative in the Kings and Chronicles, that his reign must have commenced at no great interval from Sennacherib's invasion of Judea. The received date of this is 713 B. C. The date which I propose would be 683 B. C. The supposition that the Assaradinus of Ptolemy was a different king from the Esarhaddon of 2 Kings, xix. 37, appears to me utterly untenable; as does the hypothesis, that the Mardoc Empadus of the Canon could be the Merodach Baladan of Isaiah, xxxix. 1. Merodach was the name of a god, like Nebo; and it would be as rational to consider Nabonassar and Nabopolassar and Nabonitus,—or, among the Egyptians, Amenemhe and Amenotp,—to be identical names, as to confound together Merodach-baladan and Merodach-empad. Again, the passage which I have already cited from Polyhistor (§ 29) clearly harmonizes with the Jewish chronology as rectified, while it is altogether inconsistent with it as it now stands. Esarhaddon reigned in Babylon 680 B. C., after an interregnum, as it is called, of eight years. This interregnum comprehended the short reigns mentioned by Polyhistor, viz., the brother of Sennacherib, Acises, Merodach Baladan, and Elibus. The last reigned between



two and three years, and his predecessor six months; which must, therefore, have been in 683 B. C. The date of Hezekiah's illness is, according to the received chronology, 713 B. C., which would be reduced to 683 by the correction which I propose. The embassy of Merodach Baladan was evidently immediately after this, and would, therefore, according to this reading, fall exactly in the short interval of six months when he reigned.

36. The dates of the accession and death of Sennacherib are fixed by the canon of Ptolemy and the narrative of Polyhistor in the following manner. The reign of Assaradinus terminated in 667 B. C., he having reigned thirteen years in Babylon, reckoning from the death of Elibus, when his father made him king of that province. It appears, however, from Polyhistor, that he only reigned eight years over Assyria, which would give 675 for the death of Sennacherib; and as Polyhistor says, that this king reigned eighteen years, he must have come to the throne in 693. This is perfectly consistent with his father having taken Babylon in 731; more especially as it appears from Scripture, that another Assyrian king, viz., Shalmaneser, who was in all probability a brother of Sennacherib, intervened. The death of Shalmaneser took place very shortly after his having laid siege to Samaria; and it is worthy of notice, that the sacred historian does not attribute to him the capture of that city (see 2 Kings, xviii. 9, 10, 11). Shalmaneser besieged Samaria; "the king of Assyria" carried Israel away captive. This king must have been Sennacherib; and it will be very interesting to see the sculptured representations of this conquest on the walls of the palace of Sennacherib at Kouyunjik, and to read the account of it which no doubt accompanies them. The reign of Shalmaneser was not a very long one; for, going back to the early part of the reign of Ahaz, we have Tiglath Pileser king of Assyria, who can be no other than the Khorsabad king. All this is in perfect harmony with the inscriptions, so far as the chronology is concerned. I have explained the difference between the names Tiglath Pileser and Chinilin, by supposing that the former was the name which he bore when a private individual; and the latter the name that he assumed when he became king.

37. Assuming it, then, as settled, that Chinilin was the same as Chinzirus, and that he conquered Babylon in 731, it remains to inquire in what year of his reign over Assyria this is likely to have happened. I observe, in the first place, that it was not later than his fifteenth year. This appears from the fol-

lowing consideration. I must premise, that the principal inscription at Khorsabad is written four times on the walls of the chambers IV., VII., VIII., and X. The first of these copies begins with the column which BOTTA numbers IV. 13 (pl. 99), goes then to IV. 12 (pl. 98), and so on; ending with IV. 14 (pl. 100). The second and fourth copies begin with the columns numbered as first, and proceed in the order of the numbers; the third begins with the column numbered VIII. 9 (pl. 135), which is followed by VIII. 11 (pl. 136), their being no column 10; the columns then proceed in the order of the numbers, that numbered 8 being the last. A comparison of the several copies of this inscription is very useful; but none is perfect, and very often there is only one in tolerable preservation. Now it is stated in this inscription (145. 11), that it records the events of his reign "to the fifteenth year." At this date, then, he was master of Babylon. It is worthy of being noticed, that all the pavement inscriptions are to be referred to this same period. They chiefly consist of extracts from this great inscription; with this remarkable difference, however;—in the great inscriptions (and in some of the smaller pavement inscriptions, as 8, 9, 10, 15, 21), the king speaks of himself; and the verbs and pronouns used are in the first person singular; but in the pavement inscriptions generally, the verbs used in reference to the king are in the third person plural; and the pronouns are those of the third person singular. This is a most important assistance to the decipherer, when once it is recognised;\* but it has led some persons into serious errors; they have assumed, for instance, the equivalence of characters which represent  $\bar{a}$  or  $a$  and  $ya$ , or which represent syllables beginning with these preformatives, and terminating with consonants; and they have made similar mistakes as to the affixes, so as to have arrived at the most extraordinary conclusions respecting the interchangeability of cha-

\* Its use in determining the relation of characters beginning with  $a$  and  $ya$ , and terminating with the same consonant, is shown in the Appendix. That it may also give the value of characters which include two consonants will appear from the following example. In 2. 17 we have for 3. pl.  $yas . x . c\bar{a} . nu$ ; and in 15. 19, for 1. s.  $as . x$ ,  $\text{𐎠𐎡}$ . I represent by  $x$  a character which cannot be formed with the types, and the value of which is immaterial to my present purpose. The final character in the 1. s. must contain the consonants  $c$  and  $n$  which appear in the plural; and as the vowel of this tense, in verbs which are neither in the causative conjugation, nor defective in the last radical, is generally  $u$ , I value this character as  $c\bar{u}n$ .

racters. The bull inscriptions appear to be of somewhat later date than the pavement ones; and are in substance materially different, though they have a good deal of common matter.

38. The inscription on the walls of the chamber II. is unfortunately much mutilated. It contains an enlarged account of the events related in the four inscriptions mentioned in the preceding section, digested into the form of annals. These annals extend to the tenth year at least; the second year is mentioned in col. 3; the fourth and fifth in col. 7; the seventh in col. 9; the eighth in col. 11; and the tenth\* in col. 17. The columns extend to thirty-five; but it is not clear that the numbers begin at the beginning of the inscription. M. BOTTA may have made a similar error here to what he made in the fourth and eighth chambers. Now I think it is pretty certain, that there is no mention of the conquest of Babylon in these annals from the second to the ninth years inclusive. The first year must be rejected also, because only five years are allowed for the joint reign of Chinzirus and Porus; and even admitting that the next king Yugæus or Ilulæus, who is stated to have reigned five years also, was another dependent on Chinilin, this would only allow him ten years' authority over Babylon. But he possessed this authority after his fifteenth year. The tenth year is then the earliest to which the conquest of Babylon can be assigned. On the other hand it appears from 2 Kings, xv. 19, that Pul, who must have been the predecessor of Chinilin, reigned subsequently to the accession of Menahem to the throne of Israel; and consequently the earliest date of the accession of Chinilin which is admissible is the second year of Menahem. This was, according to the received chronology, 771 B. C.; but the correction of thirty years must be applied to this date for excess in the reign of Manasseh. It may be supposed, that the reign of Ahaz is also overrated two years. Hoshea began to reign in the twelfth year of Ahaz, according to 2 Kings, xvii. 1. His first year would then correspond to the twelfth and thirteenth of Ahaz; but it appears from 2 Kings, xviii. 1, that Hezekiah began to reign in his third year; and xviii. 9, that the seventh year of Hoshea corresponded in part

\* The ninth year was mentioned in col. 14, line 8; cf. 120. 8, from which the last portion of the line may be in great measure supplied. The walls of the fifth chamber appear to have contained another series of annals, less extended than those in the second. Unfortunately they are in a still more mutilated condition than the others.

to the fourth of Hezekiah. It would follow from these texts, that the reign of Ahaz was only fourteen years. I believe, however, that this would be an erroneous conclusion. The old characters for 4 and 6, 7 and 1, are by no means easy to be confounded; but those for 2 and 4, 3 and 7, have a good deal of resemblance; so that it is much more likely that "fourteenth" ought to be read in 2 Kings, xvii. 1, in place of "twelfth," than that the number "fourteen" should be substituted for "sixteen" in 2 Kings, xvi. 2; and again 2 Chron. xxviii. 1. The submission of Menahem to Pul was, therefore, in all probability, in 741; and the accession of Chinilin may be placed in the following year; so that his first year would be the eighth year of Nabonassar, beginning 24th February, 740. It may have been a year sooner, but could not, I think, have been any but one of these two. Of course, I consider the Pul, who was king of the Babylonians under Chinilin, to have been a different person from the conqueror of Israel. In the following Table I have arranged the kings of Judah, Israel, Assyria, Babylon, and Egypt, in parallel columns, with the date of the accession of each, when known.\* A line is drawn between the reigns when the precise date is known; a row of dots is used in place of it when the date is uncertain. A broad black line indicates a conquest or change of dynasty.

\* The Table has been corrected by adopting the length of the reign of Bocchoris which Eusebius gives; omitting the reign of Zit, which Africanus introduces before it. See notes in pp. 46 and 48. In the names *ch* is used for what I have hitherto expressed by *k*, and *k* interchangeably with *c*; *th*, *sh*, and *tsh* are used for *t*, *f*, and *ç*. This change of notation was rendered necessary by the printer's having only the italic forms of the new letters. I have also changed the vowel in the last syllable of the name of Athurkadin, bringing it into conformity with that in the Assaradinus of Theon's copy of the canon, and in the Hebrew אֲתֻרְקָדִין; but I leave it *a* in the Babylonian name Nabudarutshur, as in the Chaldee נַבְדָּרְשֻׁר. To the former change I have been led by observing that the name of the Tigris on the Nimrûd obeliak, the first vowel in which is unquestionably *i*, begins with this syllable; the final *n* being, however, assimilated to the consonant which follows. It is 𐤠𐤏𐤍𐤏, *di'. qila*. The latter character in the name occurs also in 𐤠𐤏𐤍𐤏, *tu'. qila*, "the beginning," 𐤠𐤏𐤍𐤏, the final consonant of the first character being also assimilated. It is to me quite plain, that the above name is that of the Tigris; it and the 𐤠𐤏𐤍𐤏, *jā. bā*, or *Zab*, being spoken of as the two rivers, at whose confluence Livga, the modern Nimrûd, was built.

JUDAH.	ISRAEL.	ASSYRIA.	BABYLON.	EGYPT.	
Ahaziah, 781.	Zachariah, 744.	Pul.	Nabonassar, 747.	Bocchoris, 761, = Bakarru.	
	Menahem, 743.	Chinilin, 740, = Tiglath Pileser. = Chinzirus,	Nadius, 733.		
	Pekahiah, 732.		and Porus=Pul, 731.		
Jotham, 729.	Pekah, 730.	Shalmaneser,	Yugæus, 726.	Sabacon, 717, = Shevec.	
			Mardoc Empadus, 721.		
Ahaz, 713.			Arcianus, 709.	704.	Sebikos, 709, = Shevec, = So.
	Hoshea, 700.		Belibus, 702.		
			Apronadius, 699.		
Hezekiah, 697.	Captivity of Israel, 691.	Sankiriv, 693, = Sennacherib.	Rigebelus, 693.	Tarkos, 695, = Tahrac, = Tirhaka.	
			Mesessimordacus, 692.		
			688.		
			Merodach Baladan, 683.		
			Elibus, 682.		
			Assaradinus, 680, = Esarhaddon.		
	Athurkadin = Esarhaddon, 675.		Stephinales, 677.		
Manasseh, 668.		Saosduchinus, 667.		Nechepsos, 670.	
				Necho L, 664.	
Amon, 643.		Chineladanus, 647.		Psammetich I., 656.	
Josiah, 641.					
		Nabudarutshur = Nabopolassar, 625 (Nineveh destroyed).			
Jehoiakim, 610.		Nabucud'rutshur = Nebuchadnezzar = Nabopolassar, 606 and 604 (the former date in conjunction with his father.)		Necho II., 611.	

## A P P E N D I X.\*

39. In the preceding Paper, my main objects were to explain fully the manner in which the ideographic element enters into the Assyrio-Babylonian inscriptions, and to arrange the chronology of the period to which the later inscriptions belong. What I have written on this last branch of my subject being grounded on the reading of the names of the later Assyrian and the Babylonian kings, a knowledge of the phonetic values of certain characters was assumed, as it was also in connexion with the ideographic characters treated of in the beginning of the Paper. Many of these values had been stated in my former Papers, published in Vol. XXI. of the Transactions of the Academy; and in a Paper on the Van inscriptions in Vol. IX. of the Journal of the Royal Asiatic Society. A few of these were corrected in the present Paper, and from the use of a new notation others were varied, more apparently than really. The phonetic values were, however, all given as isolated facts, no attempt being made to exhibit in connexion with one another those which contained the same consonant. It was indeed stated, that there were four vowels; that there was no character denoting a simple consonant, but that characters might represent a consonant with a vowel either preceding or following it; and that there was no distinction between the two first vowels when they commenced a syllable. From this it followed, that each consonant might be contained in the values of seven distinct characters having the forms *Cā, Ca, Ci, Cu, aC, iC, and uC*, where *C* represents any consonant; and it was stated, that the last two would represent also *yaC* and *vaC*. It was not stated, however, how many values *C* might have, and, consequently, how many series like the preceding existed in the language; nor was it stated what characters belong to each series. In the present Appendix I propose to supply these omissions. And first as to the number of series. I think there were *at least* fifteen values of the consonant when initial, which I propose to denote by the following fifteen letters, after which I give the

\* It is proper to state, that the notes to the preceding Paper were for the most part added while it was passing through the Press, in November, December, and January, and that this Appendix was in the hands of the Committee of Publication on 19th January, 1850.

corresponding Sanskrit letters and the Hebrew letters with which they appear also to correspond. It will thus clearly appear, that I consider the syllabary to be of Indo-European origin. The peculiar letters of the Semitic nations had no distinct values. For instance,  $\text{𐎠}$  was not distinguished from  $\text{𐎡}$ , nor  $\text{𐎢}$  from  $\text{𐎣}$ ; nor was there any uniform mode of expressing  $\text{𐎤}$ . Sometimes it was represented by  $g$ , sometimes by  $n$ , and sometimes it was omitted.

I. $c$ क 𐎠, 𐎡.	IX. $p$ प 𐎢.
II. $g$ ग 𐎣, 𐎤, sometimes $\text{𐎥}$ .	X. $b$ ब 𐎦.
III. $ç$ च 𐎧.	XI. $y$ य 𐎨.
IV. $j$ ज 𐎩.	XII. $r$ र 𐎫, sometimes 𐎬.
V. $l$ ल sometimes 𐎭, sometimes 𐎮.	XIII. $v$ व 𐎯, 𐎰.
VI. $t$ त 𐎱, 𐎲.*	XIV. $ç$ श 𐎳.
VII. $d$ द 𐎴.	XV. $s$ स 𐎵.
VIII. $n$ न 𐎶, sometimes $\text{𐎷}$ .	

The Sanskrit aspirates were not represented, being probably not distinguished from the unaspirated letters which precede them; it is probable that the three first nasals were expressed by  $n$ .  $\text{𐎶}$ ,  $m$ , was not distinguished from  $v$ ; nor was  $\text{𐎬}$ ,  $l$ , distinguished from  $r$ . I am not sure whether the fifteenth series should not be divided into two, one of which should be  $\text{𐎳}$ ,  $\text{𐎴}$ † I have not yet been able to arrange any characters in series corresponding to either  $\text{𐎵}$  or  $\text{𐎶}$ ,  $h$ ; but I think it possible that such may exist.

The characters representing simple syllables containing a consonant fol-

\* The consonant of this series sometimes represents the  $r$  of other languages. Thus *di.yac.tā* (*dīctā*), "males," represents 𐎠𐎣𐎱, 𐎠𐎣𐎲; and the town *si.n'u.gā.t'u* (Gentile - *tā.yi*), is the 𐎱𐎵𐎶𐎴 of Gen. xiv. 1, the *Σίγγα* of Dio, now *سینجر*, Sinjar.

† I rather feel disposed to divide this series into two; making  $\text{𐎳}$ ,  $tā$ , and  $\text{𐎴}$ ,  $tu$ . The consonant of the former is represented by  $\text{𐎱}$ , not  $\text{𐎲}$ , as in *pā.t'ā.ā.t'a*, "provisions," from  $\text{𐎱𐎴}$ ; yet it seems nearer to  $s$  than to  $t$ ; and this is clearly distinguished from  $sā$ ,  $çā$ , and  $tā$ . The latter of the above characters (and, of course, the compound character  $\text{𐎳𐎴}$ , see note in p. 44), belongs to the same series as this. On the other hand, I believe, the distinction between the  $\text{𐎳}$  and  $\text{𐎴}$  series cannot be maintained; I have not been able to find any pair of characters, which, differing as to these consonants, agree in the residue of their values.

lowed by a vowel would thus be sixty. A few of these appear to have been wanting; but the number of actual characters of such a form was much greater than this; many characters being phonetically equivalent. I will, however, content myself in this Appendix with giving one character for each combination, to which I will add the number of the corresponding character in Mr. FISHER's catalogue of the characters used in the great inscription at the India-House. As several forms of some of these characters occur in the list, which equally correspond to the Assyrian one, I will in such case give them all.

Of the characters which represent syllables terminating in a consonant, I believe that there were only nine series; I. used under certain circumstances for II.; III. used for IV. and XIV., V.; VI. used for VII., though I believe very rarely; VIII.; IX. used also for X.; XII.; XIII. used for XI.; and XV. which was confounded sometimes with XII. and sometimes with VI., and which appears to have been used for VII. much more commonly than VI. was, The number of characters of this sort would, if complete, be twenty-seven; making with the former series eighty-seven.

40. In future transcriptions I will confine myself to the fifteen consonants and the four vowels that have been enumerated; and will represent each character of the first class by one invariable combination. The reader will only require to bear in mind that *c*, *g*, *t*, *d*, *p*, and *b*, should be pronounced *k*, *q*, *t̄*, *d̄*, *f*, and *v*,\*

\* See p. 7 for the values of the first four of these letters. As some persons have blamed me for making use of the "phonetic" consonants, I will here observe that, when Mr. ELLIS's alphabet was in a very inferior state to what it is at present, it was recommended by Sir JOHN HERSCHEL, in his "Manual of Scientific Inquiry," p. 441, to the voyager or traveller, as containing "a stock of characters prepared to his hand, capable of accomplishing to a considerable extent the object" of taking down the words and phrases of a language that has not been reduced to writing. As his system was laid before the ethnological subsection of the British Association in 1849, and has been since explained in print for their use, it is beyond comparison the best practical method of representing sounds to the eye; and I cannot doubt that it will, in the course of time, be generally used for scientific purposes in connexion with language, whatever may be its fate as a means of reforming the spelling of English. The reader will observe, that in p. 7 a typographical error occurs; *z* being printed instead of *z̄*, as the new character used to express *zh*, or the penultimate consonant in *vision*. The same error occurs in the two last lines of the note in p. 12, and in the antepenultimate line of the note in p. 13 after *d*. And here, by the way, I may remark, that the last sentence of the former of these notes contains a phonological misstatement. The relation be-



when preceded by a vowel; and that *m* may be used for *v*; *k* or *q* for *y*, but less frequently; and *l* for *r*; and that what *l* properly represents is the cerebral *t* of the Indians, which is apt to be pronounced as a sort of *l* (perhaps the peculiar barred *l* of the Poles), or at least to become *l* in passing into a foreign language. It must be borne in mind, too, that *ç* was generally pronounced *t*, and, it would appear, sometimes *r* after a vowel; that *s* was sometimes sounded *f*; and that *d*, *n*, and *r* were all very apt to be confounded with one another.

With respect to the second class of characters, I write uniformly *yaC* and *vaC* for *iC* and *uC*; *aya* and *iya* should be sounded *i*, the latter possibly being the fourth Sanskrit vowel, and the former the third; and in like manner *ava* and *uva* should be *u*, or *u* and *û*. I use *l*, *t*, *n*, and *r* uniformly for the final consonant of their respective series; but I write *c* and *p* only before *surd*, or rather *whispered*,\* consonants; and *g* and *d* before other consonants and at the end of a word. I write *ç* before a vowel or *r*, before another *ç*, and at the end of a word, *ç* before another whispered consonant, and *j* before any other consonant. I write *y* before another *y*, or before *c* or *g*, which it perhaps converted into *y*, and *v* in all other cases.† Lastly, I generally write *ρ* in place of

tween *s* and *f* is a very different one from that between *t* and *ṭ*; but I was deceived into thinking them the same, by the use of the like combinations *sh* and *th* to express *f* and *ṭ* in the common spelling of English. This is an additional reason to those given in p. 8, for preferring single to double characters as the representatives of all consonants.

\* Mr. ELLIS makes the two following objections to the term “surd,” which must be admitted to have some weight; the latter particularly. It is derived from a Latin word which is properly applied to a person incapable of hearing, and only metaphorically to a sound which is scarcely heard; and though it may in this metaphorical manner be properly applied to the Sanskrit letters which are classed as surd mutes, it is not applicable in any sense to the continuants corresponding to these, such as *f* or *ṭ*, nor to the sibilants. To the term “whispered,” which Mr. ELLIS would substitute for this, there can be no objection; but a good correlative term is wanting. In his Paper before the British Association he uses “spoken,” which is objectionable, as in one sense all letters are so. He has since suggested “voiced,” which conveys the required idea, though by a term which is scarcely English.

† See note in p. 42. The influence here attributed to this consonant on a following *c* or *g* seems, on reflexion, a very unlikely one. That the same characters should express *av* and *ay*, and probably *ô* or *ou* and *ê*, appears very contrary to our notions of phonetic propriety; and yet it appears to me absolutely certain that such is the fact.

*s* ; but I sometimes retain the *s*, and sometimes substitute  $\tau$  or *d*.\* If the consonant which terminates a character does not well cohere with that which begins the next, a short vowel may be introduced, as in  $\zeta'\bar{a}.at.\text{a}.gu.s'u$ , the Third Persepolitan transcription of *tataguf*. Such an introduced vowel may be distinguished by being in a different type. The use of a Greek letter for *s* in the two cases mentioned, is for the purpose of preventing the characters which terminated in a *t* or *r* arising from *s* being confounded with those which properly terminated with these letters. Though I have no doubt that *r*, whether properly terminating a character or arising out of *s*, was liable to be assimilated to the following consonant, I have thought it best to express it always either by *r* or  $\rho$ , as the case may be. In adopting this system of transcription, my great object has been, that a person by inspection of the transcription, might be able to reproduce, *with certainty*, the original cuneatic characters, or such as may be perfectly equivalent to them; for of the existence of homophones, I think no doubt can be entertained, though their number is far less than some writers on the subject have imagined it to be. I have endeavoured also to represent by the transcription what I suppose to have been the pronunciation; but so far only as is consistent with the former object.

41. I should now state the data of which I have made use. Of the nine pairs of the forms *aC* and *yaC*, six have been found at the commencement of the first and third persons of the same verbs, and are thus proved to correspond with each other. The reference after the latter character shows where the two forms of the verb occur. The first and third persons singular of regular verbs, generally terminate with characters of the form *uC*; while the third person plural has the same consonant followed by *u*. In some defective verbs the two former persons end in  $\bar{a}$ , which is changed in the latter into *u*. The terminations








\* I cannot satisfy myself with any uniform system of representing *s* when final; it was, no doubt, *s* before another *s*; and would seem to have been  $\tau$  before a vowel, from the transcription of *Catapatuca* at *Nakshi-Rustam*, which begins with *yas*, and must be written  $ya\tau.ap.p\bar{a}$ , &c. But before other consonants than *s*, and especially at the end of a word, it seems impossible to lay down any satisfactory rule for its use. When final it is often to be pronounced *d* and often *r*, as appears from a comparison with Hebrew, and from the changes made when a vowel is added. The word *gi.bid* in 16.4 is plainly  $\text{גִּיבִּיד}$ ; and the final character is elsewhere resolved into *bi.yas*. Other instances of a similar nature might be given.

of nouns are also different, as they are in the absolute state, in construction, or before certain pronominal affixes; and by observing these changes, it can be inferred, that many characters contain the same consonant. The Gentile adjectives derived from names of countries are useful in the same way. These all terminate in  $\text{𐎶 𐎶}$ , *yi*, which must be preceded either by a character terminating in a consonant, or by one which terminates in  $\bar{a}$ . The name of the country generally terminates in a character which represents the same consonant followed by a different vowel. Sometimes, when the name of the country terminates in a consonant, the Gentile adjective inserts a character containing the same consonant followed by  $\bar{a}$  between it and the final *yi*. A relation is thus established between the first and second classes of characters. This relation is likewise observable in the first and third persons of certain defective verbs, answering to the Hebrew defectives in *Pi Num*, where a character of the form *aC* or *yaC* is followed by one which begins with the same consonant. Thus, the verb in the Achæmenian inscriptions which signifies "may he defend," is  $\text{𐎶𐎠 𐎶𐎠𐎶}$ , *yaç.gur*. The last character is a compound one; and has been mentioned in p. 33, as representing in some inscriptions the last syllable of the name of Nebuchadnezzar.\* In the Hebrew this would be  $\text{יָצַר}$  for  $\text{יָצַר}$ . The optative sense is given to the Babylonian verb by prefixing the particle *la*. In this class of verbs, the simple character  $\text{𐎶}$ ,  $\bar{a}$ , is sometimes used in place of that which expresses it in connexion with the following consonant. Thus, the verb *aç.çi.gā*,  $\text{𐎶𐎠𐎶}$ , signifying "I carried away," which occurs very frequently in the inscriptions, followed by the affixes *su*, "him," or *av.vā* (*ammā*), "them," is written sometimes with  $\bar{a}$ , and sometimes with *aç*, for its initial. It is possible, indeed, that, as in Hebrew, the two roots  $\text{יָצַר}$  and  $\text{יָצַר}$  were in use. The connexion between some initial and final consonants is established by the arbitrary insertion of certain characters between two others. Thus we have *ray.yar.ray* = *ray.ray*; cf. 12.98 and 18.99.





42. Having thus briefly explained the data of which I have made use in this classification, I proceed to give the characters.

\* It occurs also in *çur.rā.yi*, "Tyrian," on the Nimrūd obelisk; a good instance of what has been just stated respecting the Gentile adjective. It is equivalent to the two characters given hereafter as *çu.var*.

## FIRST, OR C SERIES.






- cā*, . L. 243.  
*ca*,  or . L. 28.\*  
*ci*, wanting; *ca* or *gi* was used for it.  
*cu*, . L. 113.  
*ac*, . L. 40.†  
*yac*, . L. 283, cf. 8.58, 60, with  
 16.125, 126.  
*vac*, ? L. 143.

## SECOND, OR G SERIES.


- gā*, . L. 165, 167.  
*ga*, . L. 151.  
*gi*, . L. 31.  
*gu*, . L. 62.



For characters ending in *g*, see *C* Series.





## THIRD, OR C' SERIES.






- gā*, wanting, its place being supplied  
 sometimes by *cā*, and sometimes  
 by *jā*.  
*ga*, wanting, or not ascertained.  
*gi*, . L. 80.‡  
*gu*, . L. 205.  
*ag*, . L. 214.  
*yag*, . L. 77, cf. 9.29 and 2.21;  
 153.11 and 16.97.  
*vag*,  L. 26 and 71 united.

## FOURTH, OR J SERIES.

- jā*, . L. 5.  
*ja, ji, ju*, wanting or unascertained.  
 For characters ending in *j* see *C* Series.

\* In the Appendix, as first sent, the former of these characters was made *ca*, and the latter *ci*; but I find that they are interchanged in the name of Sennacherib at Kouyunjik; and from comparing the modes of forming the same character in different inscriptions, I have no doubt that they are mere variants. On the other hand, , which I formerly supposed to be a variant of , and consequently to have the value *ca*, was a totally distinct character with the value of *bar*; see note in p. 43.

† It is very interesting to compare the Median form of this character  with this and with the two Babylonian forms. It seems plain that the Median is derived directly from the Babylonian lapidary ; or at least that it is not derived from it either through the Assyrian or the cursive Babylonian. The intermediate forms are those used in the inscriptions at Mal Amir (Elymais or Susiana); the language of which seems to differ very slightly from the Median of the time of Darius. In these inscriptions the character before us is formed exactly as in the Median; while the preceding and following are formed as in Assyrian, without the transposition of wedges which has taken place in the Median  and .

‡ In the Appendix, as originally sent, this character was valued as *ba*; see note in p. 42. Since that note was written, I have carefully examined the words in which , L. 69, occurs. I have stated in the note referred to, that it was interchanged with the present character and *ru*; it is also interchanged with the same character and *yar*. Its value must, therefore, be the value of  + *r*. Now I find that in the Table of Variants of the Standard Inscription at Nimrūd, as published by the British Museum, l. 28,  , *yag.ray*, after *gi*, is replaced by ,

FIFTH, OR *L* SERIES.

<i>lā</i> ,	𐎡𐎢.	L. 187, 188, 189.
<i>la</i> ,	𐎡𐎢𐎣.	L. 26 and 273 united.
<i>li</i> ,	𐎡𐎢𐎣.	L. 13.
<i>lu</i> ,	𐎡𐎢𐎣.	L. 118, 119, 121-123.*
<i>al</i> ,	𐎡𐎢.	L. 278, 279. } No Assyrian equi-
<i>yal</i> ,	𐎡𐎢𐎣?	L. 276, 277? } valents known.
<i>val</i> ,	𐎡𐎢𐎣.	L. 222.

SIXTH, OR *T* SERIES.

<i>tā</i> ,	𐎡𐎢𐎣.	L. 272.
<i>ta</i> ,	𐎡𐎢.	L. 275.
<i>ti</i> ,	𐎡𐎢.	L. 34.
<i>tu</i> ,	𐎡𐎢𐎣.	L. 26 and 202 united.
<i>at</i> ,	𐎡𐎢.	L. 204.
<i>yat</i> ,	𐎡𐎢𐎣.	L. 269.
<i>vat</i> ,		not ascertained.

SEVENTH, OR *D* SERIES.

<i>dā</i> ,	𐎡𐎢𐎣.	L. 268.
<i>da</i> ,		not ascertained.
<i>di</i> ,	𐎡𐎢.	L. 162.
<i>du</i> ,	𐎡𐎢.	L. 260, 270.

For characters ending in *d* see *S* Series.

EIGHTH, OR *N* SERIES.

<i>nā</i> ,	𐎡𐎢.	L. 139, 140.
<i>na</i> ,	𐎡𐎢.	L. 192.
<i>ni</i> ,	𐎡𐎢.	L. 91.
<i>nu</i> ,	𐎡𐎢.	L. 211.
<i>an</i> ,	𐎡𐎢.	L. 287.
<i>yan</i> ,	𐎡𐎢?	L. 27 rather <i>yin</i> .
<i>van</i> ,	𐎡𐎢.	L. 256-258.

NINTH, OR *P* SERIES.

<i>pā</i> ,	𐎡𐎢.	L. 44.
<i>pa</i> ,	𐎡𐎢.	L. 37.
<i>pi</i> ,		wanting, <i>pa</i> or <i>bi</i> used in its stead.
<i>pu</i> ,		wanting, <i>pa</i> or <i>bu</i> used in its stead.
<i>ap</i> ,	𐎡𐎢.	L. 79.
<i>yap</i> ,	𐎡𐎢.	L. 253, 254; cf. 8.55, 5.21.
<i>vap</i> ,	𐎡𐎢.	L. 208, 209.























TENTH, OR *B* SERIES.


<i>bā</i> ,	𐎡𐎢.	L. 111.
<i>ba</i> ,		seems to be wanting, <i>pa</i> used for it. (See note *, p. 62.)
<i>bi</i> ,	𐎡𐎢.	L. 223-225, 233, 234.
<i>bu</i> ,	𐎡𐎢.	L. 59.

For characters ending in *b* see *P* Series.

the Nimrūd form of the character before us. The latter, as I take it, represents the conclusion of the singular of a noun, that of the constructed plural of which is expressed by the former. It follows that the value of the present character begins with *g*. It occurs also with 𐎡 before it, as the verb "I shut up;" which is naturally deduced from the root 𐎡𐎢; and in the word signifying "guards" (of the palace), *na.gir.ti*, which is evidently from 𐎡𐎢. Taking all this into consideration, along with the name mentioned in the former note, which it is certainly most natural to read *gi.du.nā.yi*, I feel myself compelled to value the two characters under consideration as *gi* and *gir*; and accordingly to read the Babylonian name of Darius as *Dārayyāgir*! Feb. 8, 1850.

\* In some of the Nimrūd inscriptions, this character is used for 𐎡, i. e. *ānā.cu*, "I."

ELEVENTH, OR *Y* SERIES.*yā*, . L. 249.*ya*, . L. 12.*yi*, . L. 4 doubled.*yu*, . L. 71.For characters ending in *y* see *V* Series.TWELFTH, OR *R* SERIES.*rā*, . L. 94-96, 144-147.*ra*, . L. 53.*ri*, . L. 52.*ru*, . L. 51.*ar*, . L. 32 and 73 combined.*yar*, . L. 194, see § 14.*var*, . L. 251, 252.THIRTEENTH, OR *V* SERIES.*vā*, . L. 238.*va*, . L. 46.*vi*, . L. 106-109.*vu*, not ascertained.*av*, . L. 206, 207.*yav*, . L. 56, 57; cf. 152.8 and 16.53.*vav*, not ascertained.FOURTEENTH, OR *ç* SERIES.*çā*, . L. 181.*ça*, not ascertained.*çi*, . L. 126.\**çu*, . L. 124.For characters ending in *ç* see *ç* Series.FIFTEENTH, OR *S* SERIES.*sa*, . L. 6, 175, 176.*sa*,  or . L. 26.*si*, . L. 32.*su*, . L. ?*as*, . L. 45.*yas*, . L. 85-87, 89, 90, 184;  
cf. 8.34 and 2.17.*vas*, . L. 262, 264.

I need scarcely say, that there are many phonetic characters, whose values are compounded of those of two or more of the above, in addition to such as are homophones of them. I have perhaps omitted a character in each series, with the value of the form *Crî* or *C'r*. I, however, only know one character, to which I should assign such a value; I mean , which seems to express *f'r*, rather than *par*; so that when followed by a syllable beginning with *r*, it may be transcribed by *f'* singly; as in the word *f'.rā.t'i*, 5.14, "the Euphrates;"

To prevent mistakes, *va* is often added, while the other form of the present character, given in note †, p. 28, is used for *lu*.

\* Often used for *çi* or *çiv*; but in some situations seems clearly a simple *çi*; so *bi* is also used for *biç*, § 9.

and in *lā ya.f'.ru.vag*, the conclusion of line 35 of the inscription on the tomb of Darius; which I suppose to mean "let him not break into (the tomb)," the verb corresponding to 𐎠𐎢𐎡𐎢. Other characters which seem analogous to this, are rather compounds of two of the forms *Cā.ar*, and should be represented by *Car*.

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#### ADDENDA ET CORRIGENDA.

IN the eight months which have elapsed since this Paper was presented to the Academy, I have been making continued progress in the interpretation of these inscriptions; and for the last two months I have had in my hands copies of some very valuable inscriptions from Nimrūd, Kouyunjik, and Mal Amir, being the first part of a collection about to be published by the Trustees of the British Museum. This has naturally led to rectifications of my views on several minor points; while it has confirmed me in the correctness of the great principles advanced in this Paper, and of which I claim to be the discoverer; viz., the almost perfect correspondence of the Median, as well as the Van, phonographs with the Assyrio-Babylonian; the fact of the primitive values of *all* of these being Indo-European syllables, and not Semitic letters; the existence of ideographic characters with various uses, as explained in §§ 9-23; and the consequent possibility of a character being read in two or more ways, according as it was used as a phonograph or an ideograph. In the notes which have been added while the paper was going through the Press, some corrections have been made; and I propose now to give a list of such corrections made in these notes as refer to passages different from those to which they are attached; as well as to add a few other corrections which I have not had an opportunity of making since I discovered their necessity. This list I give in the order of the pages. To this I will add a short specimen of translated Khorsabad text. The characters which occur in the preceding syllabary will not be expressed; but only homophones, compound phonographs, and ideographs.

PAGE 5. An erroneous statement in the note is corrected in the note in p. 20. As to the main question discussed in it, the discovery which I have recently made of the close resemblance between the inscriptions found at Mal Amir in Susiana and the Second Persepolitan (see p. 62), appears to me to furnish a conclusive argument in favour of my views. That the people of Susa should use a character and language almost identical with that of their neighbours the Medes, is only what we might expect; but will any one seriously contend, that Susa was inhabited by Scythians?

PAGES 7, 12, 13. Some typographical errors, and one of my own, are corrected in the note in p. 58. As respects the Etruscan alphabet mentioned in the note in p. 13, I have ascertained that the value of the seventh letter was *t*, and that of the eighteenth *ā*.

Page 14, line 7 of note, for ארממתא read ארמתא.

Page 17. The initial character in *bab.il.rā.vā*, is by no means identical with the mixed sign mentioned in § 10, as suggested at the bottom of the page.

Page 21, line 8. I prefer *din* to *āan*, for reasons given in the note in p. 54.

———, penult. line of note, for *abhi* read *api*.

Page 24. With respect to note \*, see the note in p. 42. The reading *natta* in line 5 is doubtful. The first character in the word seems to have in one connexion the value *nat*; but in other places it is more certainly *qil*, or, as I now write it, *yil*; the remainder of the word is *la*. It is *possible*, that both the Aramæan word given in p. 24, and 𐤎𐤋, which is nearly identical with it in meaning, may be equivalents of 𐤎𐤋; but if only one of these can be admitted, I incline to the latter.


Page 23, line 17. The meaning given to the cuneatic word in this line is not the right one. See note in p. 42 at the end.








Page 26. I was in error when I resolved the second form of the name Nebo into *Nab.ic*. The value of the latter character is *ac*; and the former is, I believe, never to be valued otherwise than phonetically *an*, and ideographically *il* or *asur*. The arbitrary mode of representing divine names, by combinations of the ideograph for "God" and single characters, of which this is a specimen, is a source of much confusion and uncertainty.

———, first line of note, for *divided* read *derived*.

Page 31. A mistake which I have made as to the initial character of the



two first forms of the name treated of in § 22, is corrected at the end of the note in p. 44. The third form occurs on the Nimrûd obelisk, and in other Nimrûd and Kouyunjik inscriptions; and from these it appears, that the two first characters, as I have given them, ought to be combined into one, and in like manner what I have given as the third and fourth. The two last comprise L. 255, of which the value seems to be *çip* or *çap*. The first is of course *bar* or *barra*. The entire name is *barra.çip.vā*, or *bar.ra.sir.vā*. In the latter form, the *r* is assimilated to the following consonant, which is probably the equivalent of our *wh* (see note in p. 47), from which to *f* (or, when doubled, *p*) the transition is easy. In the inscription on the obelisk, this name follows that of Babylon, as given in p. 17; and it is evident, from the context, that these two places were near together. The observation of this fact was a relief to me; as it was very painful to think, that what was said of this place in the Great Inscription would apply to the Holy City. In Major RAWLINSON'S Paper on the Nimrûd obelisk, as reported in the Literary Gazette of the 26th January, he makes these two places to be Shinar and Borsippa. The former reading is not to be thought of for a moment, the name being clearly *bab.il.rā.vā*; but I have no doubt that the latter name is that of the second town. It seems that Borsippa is mentioned by Strabo as a town in the neighbourhood of Babylon. In support of the view that I have taken of the character , *pā*, having, as a secondary or ideographic value, *sir'u*, I observe that the name of the fifth people whose tribute is represented on the Nimrûd obelisk began with this character; the remainder being *ti.nā.yi*. It seems to me quite evident, that these were the "Shirutana of the sea" of the hieroglyphic inscriptions; that is, as I suppose, the people of Cyprus. I read the cuneatic name *Siru.t'i.nā.yi*; and it appears to me, that articles of copper are both named and represented among the tribute. An Assyrian inscription has been found in Cyprus.

Pages 39, 40. The transcription on which I relied for determining the value of  is the following. In the Assyrian inscriptions a very common word is  . In the Great Inscription at the India House, the last character does not occur; but the word    , occurs four times in similar positions to the preceding word; and I have naturally assumed it to be the same. This gives *ray.yab* or *rib* for the value of the character in question. I have since met with a confirmation of this; in the table of variants in the standard inscription at Nimrûd, in the twenty-fifth line, it is interchanged with

𐎶𐎶𐎶 𐎶𐎶, that is *rav.b'i*.<sup>\*</sup> It is also interchanged with *yar.bi* (see X. 12, and compare the Standard Inscription of Nimrûd, l. 29); and in the parallel place on GROTEFEND'S barrel we have 𐎶𐎶𐎶, L. 91, in place of *yar*, L. 194. This is important, as shewing that the phonetic value of this last character is not *ni*, as I have made it in the table, but *ri*, or rather *iri*. It will be recollected, that this character followed by *bā* is used for the last element in the name of the Kouyunjik king, which is therefore *rib* or *irib*, not *su*. In confirmation of this value of 𐎶𐎶𐎶, I observe that there is a common verb, which is repeatedly used after "I departed from such a place," and which always has for its object a place. It consists of this character with *ag.ga* before it. I read it *ag.ga.rib*, translate it "I approach," and connect it with the Hebrew root 𐤒𐤓𐤐. The two last characters are the same in a reverse order, which compose the cuneatic name of Nimrûd; and it may suffice to remark, that if this be read *Cal.ah*, we should have for the verb *āg* (or *ac*).*ah.cal*; which will not pass muster. Again, the name *Rib.nā.nā*, as I read it, which occurs more than once in the inscription on the great altar at Nimrûd, must be Lebanon (a variation of the name given in p. 33). This is clear from its connexion with "the great forest," *ā.ab.bā.rabi.ta*; and that the former word means "a forest" is quite plain not only from 𐎶𐎶, signifying "a forest" in Syriac, but more decisively from the concluding part of the inscription; when the king speaks of his making *abbā*, "forests," followed by *sā*, "of," and that by two nouns which begin with 𐎶𐎶𐎶, the determinative prefix of *wood*.

Page 41. The value of 𐎶𐎶𐎶 is, I feel very confident, *ru*. The vowel *u*, which terminates the name before us in one place, is omitted in the other, which proves that it is inherent in the character. The same character, preceded by *ya.tu*, constitutes the name of a people, which must be 𐤓𐤕𐤓, Ituræa; it is joined in 16.71-73, with *Gā.ray.li*, Galilee, *Rib.du.d'u*, Lebanon, and *Gā.av.rā.n'u*, Hauran. The copyists of the inscriptions have, however, occasionally confounded this character with 𐎶𐎶𐎶, and perhaps the sculptors may have done the same. The latter is the Third Persepolitan 𐎶𐎶𐎶, L.154; and its value is *gā* (see remarks on p. 57. II.).

\* The first of these characters = *rā.av* or *rav*; it partakes, accordingly, of all the uncertainty which attaches to its last element. See note †, p. 59. Here the value would seem to be *rē*. It must be remarked, that the vowels in compound phonographs are sometimes varied in a way that those of the regular syllabary never are.

Page 46. The view taken in the note in this page, of the values of  $\sum\sum\eta$  and  $\sum\sum\eta$ , is corrected in p. 61. Sidon and not Bashan is the country referred to. Major RAWLINSON, in the Paper already cited, identifies the following name with Accar, which is given at this day to the mountainous region north of Beirout. In this he is probably right; though it is curious that precisely the same name should be given at Khorsabad to the very distant *Hariwa*. See p. 31.—After all, I am not sure that Ethiopia was not the country of Gita, as I originally supposed it to be.

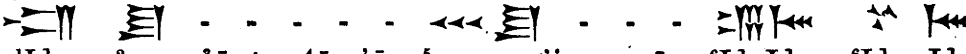
Page 57, II. I am by no means satisfied about the *G* series. In the first place I must observe, that  $\eta$  is sometimes represented by characters which belong to it; as in *ag.ga.rib*,  $\text{גקא}$ , already mentioned. I suspect, however, that another series should be introduced intermediate between the *G* and *Y* series. If so, I should refer to it the characters which now stand as *gā*, *ga*, *gi*, and *yu*; making  $\text{ג}$ , *ga*, instead of *ca*,  $\text{ג}$ , *gi*,\* and  $\text{ג}$  *gā*. This last is an ideograph for “an ox,” and is sometimes completed by the syllable *av*, and sometimes by *ap*, making up the Indo-European word *gav*. It is also used for the final syllable of *Jā.rā.an.gā*, the name answering to “Zaraca.” *Gav* is not the only instance of an ideograph being phonetically connected with an Indo-European value. The same thing happens in the case of *van*, “a man.” To the consonant of this new series, the value *q* or *h* might be given; but I have not done this, nor made the change suggested in the note † in p. 57, in the specimens which are subjoined.

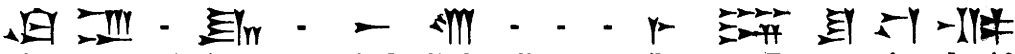
Page 62, note. I see that the word “I shut up” begins with *a*, and not, as I have here stated, with  $\bar{a}$ . It must, therefore, come from  $\text{עצר}$  ( $\text{אעציר}$ ), which has this meaning as well as  $\text{צור}$ . It is, I believe, an invariable rule, that *a*, when it precedes two radicals at the commencement of the first person, represents  $\text{עצ}$ . Other examples are *a.bud*, “I make;” *a.bur*, “I pass;” *a.la*, “I ascend.” In passing to the third person  $\bar{a}$  and *a* equally becomes *ya*.

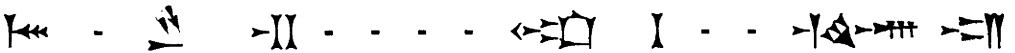
Page 63. The Assyrian form of L. 278, *al*, is  $\text{אל}$ . The value of the character which I have made *ni* is *ri* or *iri*. See remark on p. 40.


\* This is particularly used to express  $\eta$ ; as in *gi.bid*, “a servant” (Note p. 60), and  $\text{עברעשורת}$ , *Abdistarti*, the name of the king of Sidon contemporary with Sennacherib; written with both *ab.di.yas* and *ab.di.gi.yas* before *tarti*. Cf. B. M. 20, &c. i. 14 and 50.


THE following brief specimens of translations from the Khorsabad inscriptions have been selected with a view to illustrate passages of Holy Scripture, as well as the language of the inscriptions. The deportation of conquered nations by the Assyrians, and the planting of other nations in the cities from which they were removed, is repeatedly mentioned in the Second Book of Kings.


  
<sup>1</sup>Id. <sup>2</sup>su <sup>3</sup>ā . tu <sup>4</sup>ā . n'ā <sup>5</sup>san . u . t'i aḫ . cā ; <sup>6</sup>Id. Id. <sup>6</sup>Id. Id.
   
 city(2) his(1), it to change I give; men of countries



  
 v'ā . ac . ti <sup>7</sup>Id. <sup>8</sup>yā <sup>9</sup>ad <sup>10</sup>Id. <sup>11</sup>va . sa . sib ; D. P. su . t'u . bari ?
   
 obedient to law(2) my(1) in the place I cause to dwell; subjects(2)

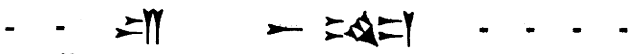

  
 Id. <sup>8</sup>yā D. P. <sup>12</sup>D. P. pā . g'ā . ā . t'i <sup>13</sup>ali <sup>14</sup>su . n'u <sup>15</sup>as . cun ; <sup>16</sup>D. P.
   
 my(1) magistrates over them I make;


  
<sup>10</sup>Id. D. P. Kinnil . ri . n'ā <sup>17</sup>va <sup>2</sup>su <sup>18</sup>ab . bi ; D. P. cu ? <sup>19</sup>D. P. Asur <sup>20</sup>Id.
   
 Kinjiropolis out of it I bring ; the will of Assur lord(2)


  
<sup>8</sup>yā <sup>21</sup>ya . n'ā <sup>10</sup>Id. <sup>11</sup>va . sa . sib
   
 my(1) in the place I make to dwell.

I have only room for the following short additional specimen ; it illustrates 2 Kings, xix. 32. See also LAYARD'S Monuments, plates 29, 78.


  
<sup>22</sup>sā <sup>23</sup>ma' . d'ā . at . tā . su . n'u <sup>24</sup>yac . lu . u <sup>25</sup>ab . bul
   
 (Certain towns) which their tributes withheld I shot arrows at,


  
<sup>26</sup>ag . gur ad Id. <sup>27</sup>as . ru . vap.
   
 I made a bank against, I burned.

<sup>1</sup> A simple ideograph; see p. 28.

<sup>2</sup> Affix 3 s. m.; see p. 44 note.

<sup>3</sup> = אִרְיָ acc. m. s. of pronoun.

<sup>4</sup> Particle, which forms dative and accusative case; it is used for both at Persepolis.

<sup>5</sup> See p. 44 in the note. The following, and some other words, I am as yet unable to explain.

<sup>6</sup> Ideographs with plural sign.

<sup>7</sup> This word also signifies "a gift," and it represents, I believe, the אָדָּ of Dan. vii. 25.

<sup>8</sup> Affix 1 s. Observe that the affix is  $\bar{a}$ ; the  $y$  is euphonic, the noun terminating in  $i$ .

<sup>9</sup> See p. 28.

<sup>10</sup> See p. 17.

<sup>11</sup> For the radical part of this word see p. 23; but the power of the prefixes is there given erroneously; *sa* seems to have formed causative verbs, and *va* = וּ to have formed the participle. This conjugation is called by Chaldee grammarians *Shaphel*. The present verb is defective, and I therefore give examples of the full participial form. Such are *va . s' . al . bi . yas*, "I clothe." R. = אֲבִישׁ; *va . s' . ac . la . yal*, "I complete," R. = אֲכַלֵּל. I consider this form to be a participle, because it is the same in the first and the third person. In the plural it is varied; *lu*, for instance, being substituted for *yal* in this last word; but so we have the adjective *rab* in the singular, and *rabu* in the plural. It will be seen, from the examples of verbs that I have given, that the Assyrian verb is, like the Hebrew, trilateral, and that the defective verbs follow very closely the Hebrew analogy. From comparing Semitic roots with Egyptian and Indo-European ones, I think it clear (and have elsewhere expressed my opinion to that effect) that the latter were originally biliteral; but I believe the trilateral form to be as well marked in the Assyrian as in any other Semitic language; and while our He-

brew and Arabic lexicons retain it, I think we shall do well to recognise it in Assyrian also.

<sup>12</sup> See p. 29.

<sup>13</sup> = עָלִי or עָלָ.

<sup>14</sup> Aff. 3 pl.; see p. 44, note.

<sup>15</sup> *Cun* signifies "to be" in Phœnician as well as in Arabic; and the *s* prefixed may convert this into the causative verb "to make;" or *sacan* may have been a simple verb signifying "to make." In the Third Persepolitan Inscriptions, we have *yal . cu . nu*, "they made."

<sup>16</sup> Several names like this, with names of deities substituted for that of the king, occur in the inscriptions; and this very name was given to the city built at Khorsabad. The second character must not be resolved into *ta . ā*. It is equivalent to the Hebrew אֲתָרָה; but I have no reason to think it was so pronounced.

<sup>17</sup> See p. 43 and note.

<sup>18</sup> Seems = אֲבִישׁ; the *ab* is probably by assimilation for *as*. The following word is a difficult one; what is written *cu*, or *cu . t'u*, seems to have been pronounced *tar* in Assyrian names. Probably these words were equivalent. I cannot venture to identify the latter with אֲתָרָה.

<sup>19</sup> = אֲסֻסֻּ, *as . su . r'u* (or *at . tu . r'u*; note † p. 57).

<sup>20</sup> See p. 25, § 18. I read the word *cani*; it is, perhaps, of Scythian origin. In the summer before last, when I first perceived the meaning of this character and its equivalence to אֲדֻנָּא, I read that word *ādu . n'a* for אֲדֻנָּא, and afterwards *du . n'a*. It was with great reluctance that I abandoned this reading on finding the most convincing proofs that the initial character was *ca* (or *ga*, see p. 69). In making this correction I should state, that I could not have been influenced by any wish to bring out the name of Sennacherib; as it was not until the present year that I recognised the identity

of the character used in the royal names with that above given. See note \* in p. 62.

<sup>21</sup> See p. 28 and note †.

<sup>22</sup> This particle signifies *who, of*, = *ו*.

<sup>23</sup> See note p. 42. For the use of << to express the first syllable, see note \*, p. 39. *ā* before the affix shews that the noun is plural. The singular would have *ī* before this affix. The absolute form, ending in *u*, is given in p. 42. If the distinction between the vowels be rejected, the grammar will be as imperfect as a Hebrew grammar without the points.

<sup>24</sup> The third person plural. I translate all the verbs in this specimen as preterites; in the former as presents. This form of the verb is used without change for both. The root corresponds to כלה or בלה, which has the same meaning. The final character seems phonetically superfluous; but it indicates that the verb is of the class לה. A similar form, *yab. nu. u*, "they made" (R. = כנה), occurs repeatedly in the Persepolitan inscriptions. That the root of this verb ended in *l* in Babylonian appears from the two forms *ab. nu*, "I make," and *va. b'ā. an. nu*, which has nearly the same meaning. The latter is the Pihel participle. Probably, in the word before us, *u* was sounded twice.

<sup>25</sup> In B. M. 63. 30, the last character of this word is resolved into *bu. val*. The corresponding verb نبل, is used in Arabic with the sense here assigned to it. The last character is also used to express "a year;" it may be of the same origin as "Bul," the name of a Hebrew month; "the annual rainy season." The "moon," אץ, was a semi-lunation; and when the calendar was regulated, fifteen days. The double moon was שנה, *sana*, thirty days,

expressed ideographically by the numeral <<<, or, as the Romans wrote it, xxx. This also expressed the idea of "new" and "change." The different meanings of this word in Hebrew and in Assyrian may have given rise to those mistakes in Chaldean chronology which Eusebius has noticed. The *Sankin* (see p. 35) I take to have been the twelve deities who presided over these double months. It is curious that there were also deities whose names were expressed by אץ, with the numeral xv. In B. M. 20. 5, 6, and elsewhere, we have "the god xv. of Niniveh and the god xv. of Babylon."(?) Niniveh, by the way (*Nanu. vā*), was certainly at or very near Kouyunjik. This appears clearly from the inscriptions found at that place; and from B. M. 15. 35, 41, it is plain that it was on the eastern bank of the Tigris. "From Niniveh I departed;—over the Tigris I passed."

<sup>26</sup> The last character in this word occurs in PORTER's transcript of VI. 51, where the Great Inscription has *gu. var*. I infer that this is the meaning from the passage VI. 62, *ya.n'ā cu.vap.rav u ā.gur.rav ac.gu. var*, "with ditches (אץ) and mounds I encircle (R. = כתר)." The *av (am)* seems here and elsewhere (as in the name of Egypt in p. 41, to be read *Ma.g'u.rav*) to be a plural termination; so it is in Phœnician and Himyaritic. The meaning of the following ideograph I can as yet only conjecture; "with the contents," "to the ground," or "to ashes."

<sup>27</sup> The root plainly corresponds to שרף. In parallel passages we have *ac. (אץ) va*. The corresponding Hebrew root would be כרה, which is not in use; but the Aramæan כרס is, and with the same meaning.