

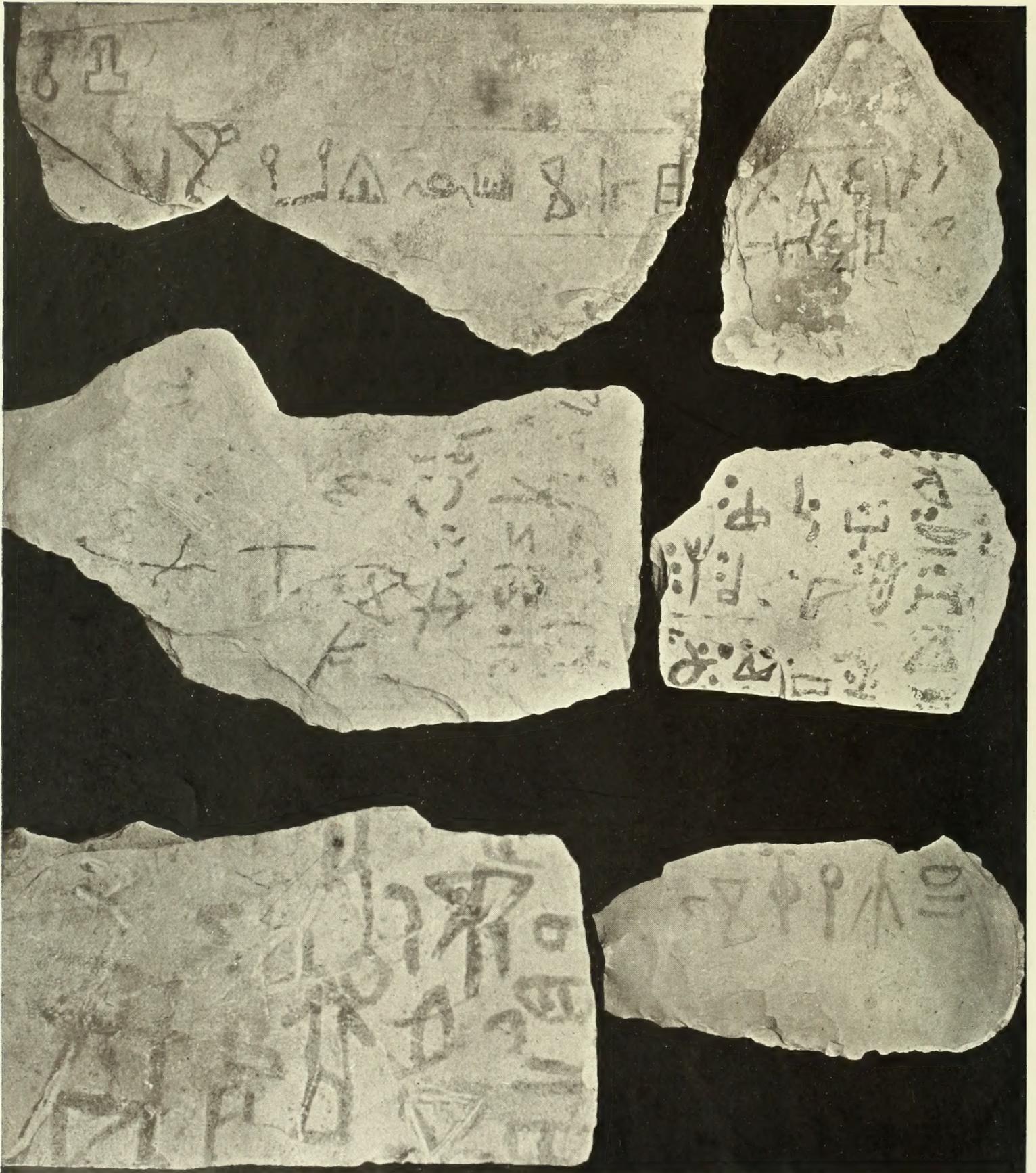
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THE FORMATION OF THE ALPHABET

BY

W. M. FLINDERS PETRIE

HON. D.C.L., LL.D., LITT.D., PH.D.

F.R.S., F.B.A., HON. F.S.A. (SCOT.), A.R.I.B.A.

MEMBER OF THE ROYAL IRISH ACADEMY

MEMBER OF THE IMPERIAL GERMAN ARCHAEOLOGICAL INSTITUTE

CORRESPONDING MEMBER OF THE SOCIETY OF ANTHROPOLOGY, BERLIN

MEMBER OF THE ITALIAN SOCIETY OF ANTHROPOLOGY

MEMBER OF THE ROMAN SOCIETY OF ANTHROPOLOGY

MEMBER OF THE SOCIETY OF NORTHERN ANTIQUARIES

MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY

EDWARDS PROFESSOR OF EGYPTOLOGY, UNIVERSITY OF LONDON

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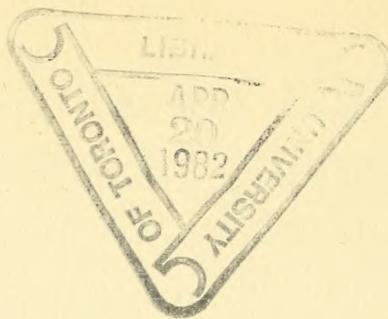
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THE FORMATION OF THE ALPHABET

CHAPTER I

THE GENERAL POSITION

AT first sight the diversity of alphabets seems as little connected as the diversity of languages. But as the labours of the philologist have gradually traced the various relations of the better-known languages one to the other, so likewise the epigraphist has dealt with the varieties of the Greek and Roman alphabets which are the more familiar, while the archaeologist has yet to trace and connect the alphabets of the less-known races, many of which were used for languages which are still unread.

The more obvious questions of the origins and connections of the better-known alphabets of various countries seemed to have been fairly settled and put to rest a generation ago; the more remote alphabets and the more ancient signary had not then been brought to light to complicate the subject. The old traditional view of the derivation of the western alphabets from the Phoenician fitted well enough to most of the facts then known, and was readily accepted in general. Further, De Rougé's theory of the derivation of the Phoenician from the Egyptian hieratic writing of the xiith dynasty was plausible enough to content most enquirers, though only two out of twenty-two letters were satisfactorily accounted for. In 1883 Isaac Taylor could safely claim that he had "summarised and criticised all previous discoveries and researches as to the origin and development of alphabets" by his general outline in his work on *The Alphabet*; in that book a sound general basis seemed to have been reached, and only minor questions needed further discussion and adjustment.

Yet the voice of caution was heard even then. Dr. Peile, in 1885, when judicially reporting on Isaac Taylor's work, and while agreeing that "his book deserves to be, and doubtless will be, the standard book in England on the history of the

alphabet," yet saw that other solutions might arise. He added: "But no proof of the affiliation of the Phoenician alphabet can be complete without evidence from writing to fill up the long gap between the period of the Papyrus Pnisse and that of the Baal Lebanon and Moabite inscriptions. In default of this it must always be possible that the Phoenician alphabet is descended from some utterly lost, non-Egyptian system of writing, traces of which may some day turn up as unexpectedly as the so-called Hittite hieroglyphs." Within a generation later this possibility clearly appears to be the forecast of the real history.

Beside these questions of the possible sources for the alphabet, which were seen to be still open to a fresh solution, there were also the questions which were suggested by the internal evidence of the alphabets themselves. The relations of different alphabets one to another often point to lost phases of their history; and, as we shall see in the following chapters, this evidence may well show from which source an alphabet has arisen.

Berger, in his *Histoire de l'Écriture*, more than once remarks on the strangeness of some facts of distribution, as, for instance, in Spain. "If the Iberian alphabet were born directly from the Phoenician, it must be admitted that it was born at a very remote epoch, and that it has not varied since, as it is the most ancient forms of Phoenician that resemble it; but by the side of the letters which recall the Phoenician there are others much more numerous which are conceived in altogether another spirit, and which can only be explained by the Greek alphabet. To this difficulty must be added another, which arises from the propagation of the Iberian alphabet. The greater part of Celtiberian coins belong to the north or north-east of Spain; it seems therefore that the Iberian alphabet spread from north to south . . . the Turdetan (southern), which is more simple, approaches nearer to the Phoenician"

(pp. 337-8). He further refers to Grimm's idea that the Iberian was connected with Runic, which alphabet is said to have extended to Gaul; and again he adds that in a few signs it resembles the Berber of North Africa.

Here it is evident that in face of the detail of a more elaborate alphabet, the old simplicity of the Phoenician derivation is felt to be quite inadequate to account for the facts. With the apparently compound and remote origins of this Iberian alphabet thus becoming unaccountable, let us turn to the Karian alphabet. At almost the length of the Mediterranean from Spain we find in Karia a nearly identical variety of signs with the same values as in Spain. No great commercial intercourse linked the rocky Karian coast with distant Spain. All probability would rather suggest a Phocian alphabet passing westward by Marseille.

Isaac Taylor also remarks that "In many respects the Libyan agrees curiously with the South Semitic alphabets." Again, he felt the insufficiency of the data of his time, when he wrote of the Asia Minor alphabets as having "some characters plainly of Greek origin, and others of an unknown and mysterious type."

The standpoint of the older writers was thus much like an accurate map of an icefield, appearing like solid land, yet in which the more curious observers had already noticed many awkward cracks and unfathomed depths. The movements of the last twenty years have broken up the ice; and now the neat history, which began at 1000 B.C. in Phoenicia, is floating over a sea of unexpected conditions, and the new land which is descried needs entirely fresh charting.

The first clear breach in the Phoenician tradition was made by the discovery of foreign alphabetic signs at Tell el Yehudiyeh in Egypt. Such were observed on the backs of glazed tiles bearing the name of Ramessu III; but they were ignored, by means of the purely arbitrary hypothesis of a restoration of the building in Greek times. Next, I found in 1889 a mass of signs in use at Gurob in Middle Egypt, which were unquestionably fixed to the period of 1400-1200 B.C.; and these signs were more akin to the western than to the Phoenician forms. In subsequent years, such signs were found likewise on pottery of the xiith dynasty, earlier still in the ist dynasty, and most of them were carried back far earlier, even to the first prehistoric civilisation. Their being thus found long before the

hieroglyphic system in Egypt, removed the last refuge of those writers who would see in them only a fresh type of cursive hieroglyphs, and would deny any connection with the same signs used in other lands.

Beside the great historic perspective of the long use of signs in Egypt, other discoveries in Europe have opened entirely new ground. These signs are largely found used for writing in Crete, as a geometrical signary, and the discovery of the Karian alphabet, and its striking relation to the Spanish alphabet, has likewise compelled an entire reconsideration of the subject. Thus on all sides—Egyptian, Greek, and Barbarian—material appears which is far older and far more widespread than the Graeco-Phoenician world; a fresh study of the whole material is imperatively needed, now that the old conclusions are seen to be quite inadequate.

The point of view here presented is not that of a systematic alphabet, invented by some single tribe or individual in a developed civilisation. On the contrary it appears that a wide body of signs had been gradually brought into use in primitive times for various purposes. These were interchanged by trade, and spread from land to land, until the less-known and less useful signs were ousted by those in more general acceptance. Lastly a couple of dozen signs triumphed; these became common property to a group of trading communities, while the local survivals of other forms were gradually extinguished in isolated seclusion.

The principal sources of material beyond the useful summaries of ISAAC TAYLOR and BERGER are, for the Egyptian Prehistoric, *Naqada, Diospolis, El Amrah*. For the ist dynasty, *Royal Tombs i and ii*. For the xiith and xviiiith dynasties, *Kahun, Illahun, Diospolis, Gizeh and Rifeh, Dendereh*. For the xixth dynasty ostraka, the photographs here published, which show for the first time groups of such signs in consecutive order, as words or sentences. For Roman Egypt, *Diospolis*, probably of Asianic source. For Libya, HANOTEAU, *Grammaire Tamachek* and inscriptions. For Lydia, SAYCE, *Soc. Bib. Arch.* 1905, 123, and inscriptions. For Karia, SAYCE, *Trans. Bib. Arch.* ix, 138, and later papers. For Spain, HUBNER, *Mon. Ling. Iberici*, also using BERGER, DELGADO and BOUDARD. For Crete, EVANS, *Scripta Minoa*. For Phylakopi in Melos, EDGAR and EVANS in *Hellenic Journal*, 1907, 177. For Lachish, which is important as an early local Phoenician script, *Tell el Hesy*, BLISS, *Mound*

of Many Cities. For Greek alphabets, LARFELD, *Handbuch der Griechischen Epigraphik*, 1907.

The exact references for each of the Egyptian signs are given in the table of references, pl. vi; the others are easily found in tabular form in the publications.

CHAPTER II

THE GROWTH OF SIGNS

BEFORE we can realise the conditions of the early use of signs, we must look to the state of civilisation in which they first came into use. Man is a sign-using animal. The snapped twigs on the bush at the wayside, by which the Red Indian showed his path to those behind him, was a sign which doubtless was as old as any human community. The score on the path, the rough signs added to show whether the hunter was successful, or if he would return that way, were signs needed in the rudest intercourse of a clan. To suppose that these necessary beginnings of silent communication would not be developed as needs arose, would be absurd. The next necessity would be the personal sign to show who had gone along the path; and the personal sign would naturally be placed upon the objects which the man made for his own use. Thus the simplest needs of the most savage community would necessitate the use of signs, which would naturally be developed in use as more complex purposes arose. Even now arbitrary signs for trade marks and for marking cargoes have not been superseded.

Signs rather than pictures are the primitive system. It is true that pictographs or hieroglyphs tend to wear down, owing to being used in haste, until they become arbitrary marks or letters; yet that is only a late degradation, and cannot be looked on as the primitive growth of linear signs.

In Egypt, especially, the monumental evidence shows two entirely different sources of conventional marks. In late times the picture writing passed through many stages, until it became the complex grouping of slightly varying strokes in the demotic writing. But far before all this there had existed, from the beginning of the prehistoric ages, a totally different system of linear signs, full of variety and distinction. This early system was certainly in its decadence long before any hieroglyphs were used in Egypt. Similarly in Crete a system of linear signs precedes the pictographic records (see pl. ix). The

older view of Taylor was limited to systems originating from picture writing, as the Egyptian, Cuneiform, Chinese, Mexican, and Hittite.

To understand the position and movement of thought in a primitive age it must be approached on a far simpler plane than that of our present familiarity with writing. To reach the working of the childhood of our races we should look to the mind of children. If the child passes through ancestral stages in its bodily formation, so certainly it passes through such stages in the growth of capacity of its brain. When we observe the mental processes of children in regard to their own conceptions, apart from the complications which later invention has placed around them, we see probably quite as true a reflection of their ancestral frame of mind as we could find in any different race of savages of the present time. The racial unity will more than compensate for differences of age.

Thus from observing children we realise that rude marks, which seem unlike any definite object, are used by the untrained mind as symbols of a definite idea. For instance, it is observed that a girl of two years old will draw a row of similar signs, and explain them by saying that they are alternately choir-boys and pussy-cats. The same child will draw rough circles and explain them as butterflies. The need of a physical resemblance to the form is scarcely felt, although pictures may be keenly appreciated. The symbolism of a mark when once started is retained by the mind. The necessity of a resemblance between the object and the mark is an aftergrowth of artistic perception.

When therefore we see signs used primitively which have no apparent resemblance to any object, we must not conclude that they had no connection of idea with surrounding things in the mind of the maker. They probably started by being used for some definite object, and were used continuously with the same traditional idea attaching to them.

In the development of children's minds another stage may be seen in the later growth of representation. It is seen that form may be observed and followed while direction is disregarded. A boy of three years old would draw a ship standing up on its bows, with the stern at the top, without the least sense of inconsistency. Another boy of three to four years old would write those letters which he knew—and even words—as readily from right to left as from left to right; he would reverse both the forms of letters and the direction of writing, or later on only reverse

the forms, while writing from left to right. He had never been shown reversed writing, every example that he saw was normal; yet the reversal seemed not only unintentional, but so entirely immaterial to his mind, that he could hardly see any purpose in writing direct rather than reversed, the two were all one in idea. See the figures 1 to 15 at the beginning of a letter given on pl. ix.

This same lack of sense of direction may often be seen in uneducated writing, where such letters as N, S, and Z are reversed. The turned S may even be seen in the epitaph of an archbishop at Ravenna.

Drawings may likewise be equally recognised in any position if they are understood. An Egyptian *fellah* may be in the stage of not understanding a drawing at all, for one insisted that a picture of an Eton boy represented a fish. But if there is the perception of form, the position is immaterial, and the *fellah* will observe and describe a drawing without taking the trouble to turn the paper the right way up.

Such instances serve to show that the sense of direction is a far later acquirement than the sense of form. Much light is thus thrown on the treatment of signs in the early alphabets; they are turned upside down, or tilted over one way or another, they are written reversed, and the direction of writing may be from either side, or each way alternately, as in the boustrophedon inscriptions. All of these variations were as nothing to the men who had not yet developed the sense of direction as significant, and who thought only of the form in whatever position or reversal it might appear.

We see therefore that we must interpret the mental attitude and the purpose of the sign-users quite apart from our own usual thoughts; and we should then rather try to view the subject from the plane of children who have scarcely begun learning to read and write. In the advanced system of writing which was in use in Easter Island, we can scarcely grasp the intended sense of signs, though the key of the meaning is partly supplied; and in the vigorous picture writing of the North-American, where form and direction have been fully grasped, the mode of expressing abstract ideas, or anything beyond visible objects, is outside of our planes of thought and imagination. The difference of mental attitude between any two written languages is nothing in comparison to the gulf which has to be bridged in establishing any system of the representation of thought.

We now turn to consider the purposes for which signs were first required. The way-marking, which we have already mentioned, naturally would lead to using some personal sign. There can be no question that the most primitive use of signs on portable objects is for denoting personal property. The sense of property arises so soon as a man has made a tool or weapon for his own purposes; and children have a keen sense of property long before they attempt to make any marks. The requirement of denoting property was therefore much earlier than the use of signs, and would be the first purpose of marking objects. In the early prehistoric graves in Egypt there are often found in a single burial several jars bearing the same mark, evidently that of the owner. A primitive use of signs is that by Sudani women for signing their hand-made pottery before it goes into the kiln, so that they may claim it after baking. At the present day among the illiterate *fellahin*, of whom not one in twenty can read, the women will cut marks on their water jars to distinguish their respective properties (see pl. ix).

As we have noticed, such marks—however meaningless to us—doubtless have some sense in the user's mind, and hence some kind of names; such a name is perhaps at first but dimly present, but by habit the mark and its name would gradually become associated. Thus a series of apparently arbitrary signs would arise, with names attached to them.

The next stage would be using the marks to denote the word, regardless of its meaning as a property-sign. Many of the rock cuttings and cave markings, found especially in northern Europe, appear to belong to this stage.

After that came another great wrench of thought, when the sign came to be attached to the sound, and not to the sense of its original form; and when it could be used for a word, or a part of a word, like a mediaeval *rebus*. In the *rebus* this stage has been preserved with pictorial instead of arbitrary signs. It seems very probable that the *rebus* arose among people—such as the mediaeval masons—who could not write but could carve, as an intelligible way of marking property. In this system we have the actual stage of the shifting of signs from their inherent to their artificial meaning, following sound alone instead of sense.

It must have needed an active intercourse to drive men through this stage, and much resolution to overcome the confusion inherent in beginning to

break from the sense of the sign. The Egyptian soon achieved it to some extent, and obtained enough signs for the principal sounds during the first or second dynasty; he occasionally went further in the same direction in the "enigmatical" writing of the xiith dynasty, and in the *rebus* writing indulged in at later times.

The next stage is when signs become purely syllabic, as in the later Babylonian and Cypriote syllabaries. Comparatively short and compact lists of syllables without any duplicates can be used with ease, and with but little burden to the memory. We keep parts of such a method still, in various ligatures and abbreviations, which we look upon as units of expression; and moreover we actually read mainly by syllable groups rather than by the separate letters, both in eye-grasp, and in vocalising a strange word.

The final analysis into bare elements of sound, and only attaching an irreducible minimum of sound to each sign, has been reached in the alphabets. Such analysis really goes beyond the necessities of the case; but as it gives the least burden to the memory, it has supplanted the syllabic varieties, while it is practically used to construct syllables, which are the real units of speech and of rapid reading.

Now from this sketch of the stages of the use of signs we see that it would be quite an anachronism to look on early signs as letters,—we have to deal with a *signary*, not an *alphabet*. The alphabetic stage of signs was probably not reached till about 1000 B.C., at least we cannot yet prove it to be used earlier. The word and syllabic stages may well cover the xiith and xviiiith dynasties. It would be rash to assume that the shift from the original sense to the mere sound in the use of signs occurred before the beginning of the Egyptian dynasties. It is more likely than not that the mental attitude of thinking of signs phonetically occurred in the same age to the Egyptian with his pictorial hieroglyphs, and also to the dweller in Egypt—whoever he may have been—who used the linear signs.

There are some reservations and limitations in dealing with this wide subject, which should be noted before we go further.

We must by no means assume that because a sign may be found in use through many lands that it was used in the same manner. The various signaries and alphabets given in the plates here are of very different ages; the earliest belong to the early prehistoric age

of Egypt, probably before 7000 B.C., the majority to the latest stages of the extended signary before it was extinguished by the spread of the Greek and Roman alphabets.

Even at the same age a sign might linger in the word stage in one country, while it was reduced to a single letter elsewhere; and we can actually see cases where a sign was a syllable in Cyprus, while it was a single letter in Asia Minor or Greece.

As we have seen that signs arise before the power of drawing pictures, it would then certainly be premature to attempt to find the original object which was in the mind of the inventor of each sign; in only one or two cases could we even guess it with any probability, such as the tree *e* or the two hills *m*. If then it may sometimes be convenient to use a nickname for a sign in referring to it, that is merely on the same footing as the Phoenician nick-names, or our children's books with A was an Archer; and such a name conveys no implication of its being that of the original subject. The Phoenician *aleph*, *beth*, etc., which passed on to Greece, was entirely a late meaning; this is shown by the earlier forms of the signs having no connection with the name, which was only applicable to the Phoenician variant. That the Phoenician names were but nick-names was seen by De Rougé and agreed to by Taylor, who gives the parallel re-naming of letters in Russian, Runic, the Keltic tree-names and the Irish Bobeloth.

In the tables here given, the necessity of compact comparison has prevented more than two forms of a letter being shown in one column. There are however sometimes a dozen variants, and those which are here given are continuous with the forms in other columns, or serve to show the limits of variation; the varieties which have less immediate use for comparison, and seem to be only local corruptions, are necessarily left aside, though in some cases we may refer to them in detail.

It must not be supposed that every line of signs here was of independent origin. In some cases the forms are evidently allied, if not indeed derived from one prototype. The M forms (43-46) are certainly all connected; yet so separate in the early stages, and continuing to show such diversity—except in the Graeco-Phoenician group—that it is best to trace them apart. Similarly the Z (49, 50) and S (51, 52), with a central stem or without, are obviously monumental and cursive forms respectively. The carrying forward of forms that first appear in Egypt, into

Crete, Melos, and Spain, is a feature worth attention, and is illustrated by keeping forms on separate lines. The three forms of Etruscan F, 12, 14, 15, which are usually put together, each belong to an early and definite type of the letter. The number of lines here is therefore a matter of convenience, to enable allied forms to be more readily traced from one land to another.

The total number of signs used is not exhausted in these sixty lines. These comprise those signs which are found in several different sources, and which have survived into alphabets of known values. There are also some signs with a long history which never touched the shores of continuous literature, and which remain floating as Aphonics (see pl. v). Doubtless they were as useful in their day as any of the other signs; but like extinct species they have left no living descendants, even in the fullest alphabets. There are also many signs with a very brief history, which only appear in one or two ages. These deserve a record, if merely to show the diversities of human invention. More than that, we are as yet only on the opening of this great subject, and any day a basketful of broken sherds from some unknown town in Asia Minor or Mesopotamia may open a fresh chapter, and show the extension of many signs hitherto scarcely recognised.

It must always be remembered that our materials are comparatively scanty, and, for the earlier ages, are derived from sources which are generally entirely neglected. All of the signs on pottery and ostraka, which yield the first half of the history of signs, shown in the first seven columns of the tables, have been recorded only by myself and my students, for no other excavators have preserved them. The signs used by humble captives, by working potters, by the illiterate who could not learn the complex system of the scribes—such are ignored by those who only seek long inscriptions and documents. These signs, however, constitute the long-lived groundwork, extending through all lands linked by trade and traffic; they are simple enough to defy corruption, and were ready to crystallize into a general system so soon as the selective influence began to work.

Here we cannot attempt anything like a general history of alphabets, we are only concerned with the growth of the alphabet out of the general signary. Nor can we deal with the comparative phonetics, especially in lands of whose speech we know nothing beyond the bare alphabet; the mutations of sounds are only touched on so far as to explain, to those

not familiar with such changes, the reason for accepting forms as identical of which the values are cognate.

Lastly there is no attempt here to touch on the languages which were expressed by these signs; they were probably as diverse as the languages written to-day in the Roman or the Arabic alphabets.

CHAPTER III

THE SIGNARY BEFORE THE ALPHABET

THE question as to whether the signs were derived from the more pictorial hieroglyphs, or were an independent system, has been so little observed by writers on the subject, that the matter has been decided more than once without any consideration of the various details involved. We purpose here to state the different lines of observation which bear upon this main question.

The two opposite views to bear in mind are: 1st, the old Phœnician theory, that the small system of the definite alphabet has been enlarged and corrupted by additions; or, 2nd, that a gradually formed signary, spread by traffic far and wide, was slowly contracted and systematised until it was reduced to a fixed alphabet.

We will deal now with the various reasons which prevent the acceptance of the Phœnician theory, numbering them for distinction.

(1) The general age of most of the signs points to their being pre-alphabetic and pre-hieroglyphic. Out of the sixty lines in the tables, forty-four begin in prehistoric Egypt—that is to say, before any hieroglyphs were known in Egypt from which they could be derived. It is impossible, in view of the continuity with which these signs are found, age before age, as we trace them back, to set up a barrier and say that all before that have no connection with all after the barrier. We might as reasonably draw a division down through the Greek alphabets, and deny any connection between the earlier and the later alphabets. This fact of continuity of form does not at all imply that all the signs are equally ancient. Many seem to have begun in later times, the *yod*, 8, and three sibilants, 56, 57, 59, only start in the first dynasty, and are unknown in prehistoric Egypt. Another letter, the Phœnician *tsade*, which is the only one clearly connected with a Cretan hieroglyph, is entirely unknown in the various early

signaries, and was probably an addition at about 1500-1000 B.C. As Taylor states, from his old point of view, "Tzade . . . is . . . the only Phoenician letter which has disappeared from every European alphabet." We can now see that it never belonged to the older general signary, and had no chance therefore of being adopted by Europe merely on its Phoenician usage. Conversely the tall triangle has in Egyptian hieroglyphs the value *d* or *du*, and no object is known from which it could be derived; it seems likely that the hieroglyph system incorporated the triangle *d* 33, which in Spanish has the value *du*, and thus the signary lent at least one sign to the later system of hieroglyphs.

(2) Further, the body of signs belong to the early age, when drawing was of the rudest, and only mechanical abilities were developed in the art. Hence from the psychological point of view it is impossible to presuppose a pictorial source for them. They start at an age when rude marks satisfy the mind by symbolizing the intended meaning, and long before more exact copies of forms were thought needful.

(3) In the fullest forms of the alphabet, so far apart as Spain and Karia, we see many exact relations of form and sound. So close is the connection that some kind of borrowing has been presupposed by various writers. Yet on the Spanish side the problem is too wide and too complex to be at all accounted for by the supposition that this connection was merely due to visits of hypothetical Karian sailors. Some common base must underlie both alphabets. We see that the peculiar signs of these alphabets are found in Egypt in the xiith dynasty and earlier (as in lines 2, 3, 5, 6, 15, 17, 20, 22, 26, 28, 31, 32, 36, 40, 43, 44, 45, 56, 57, 59), and as none of them belong to the Graeco-Phoenician alphabet, it is obvious that these twenty signs have some common origin entirely outside of the Phoenician group. Further, this origin must be a very remote one to embrace Egypt, Karia, and Spain, which are as far apart as three Mediterranean lands can lie.

(4) Turn now to another test. Were the Phoenician alphabet the primitive basis, it is clear that the western forms in the Mediterranean, and the eastern forms in Arabia, should find their common source in Phoenicia which divides them. Yet just the contrary is the case. There are many forms in common in Arabia and the Mediterranean, which have been entirely lost in Phoenicia.

RUNES	SPAIN	KARIA	THAMUDITE	SABAEA	NABATHAEA	
	⌋			⌋		3
	⌋		Υ			6
	⊕	⊕		⊕		18
ϕ	⌋				⌋	23
	ϵ		⊕			30
	⊕	∇	∇			32
	⊕			⊕		32
	⊕	∇		⊕		34
	⌋	⌋		⌋		43
				⌋		57

Here we see ten signs, with known values, all in common between Arabia and the west, yet Phoenicia knows nothing of any of these. It would be too absurd to suppose that both sides independently developed similar additions to Phoenician in such a series, which is nearly half the extent of the Phoenician alphabet. The only possible conclusion is that Arabia and the west had a common basis of signs, and that Phoenicia dropped a third of those which were retained by Arabia.

(5) The same kind of result is seen on comparing the most northern, rather than the most eastern, alphabet. Runic has been thought to be derived from Latin, or with more reason from Greek, yet it has many signs in common with Spain, Karia, and Cyprus, which do not appear in Greek and Latin.

Here nine letters are in common between the Runic and Mediterranean alphabets, and these are quite unknown in either the Greek or Latin from which a descent has been supposed. The only conclusion is that Runic is a branch of the Mediterranean alphabets much older than the formation

RUNES	SPAIN	KARIA	CYPRUS	THERA	
					8
					11
					12
					15
					23
					28
					32
					40
					44

of the Greek and Latin forms, which at a later date barred it off from further communication southward. Whatever it has in common with Greek or Latin letters it has merely in common with other alphabets as well.

(6) Another point of view is that several rare forms appear in countries far apart. Such are line 2 in Karia and Egypt; l. 5 in Karia and Egypt; l. 6 in Spain, Lydia, and Egypt; l. 17 in Cyprus, Korinth, and Spain, beside apparently Egypt; l. 19 in Libya, Karia, Spain, and Italy; l. 22 in Spain, Libya, and Egypt; l. 31 in Spain, Karia, and Egypt; l. 36 in Libya, Karia, and Egypt; l. 59, Spain and Egypt. This wide diffusion of rare signs, without any intermediate remains in countries between, is a strong mark of a generally diffused body of signs, many of which have been lost, and only stray survivors appear.

(7) We must next trench on a later chapter, that on the Order of the Alphabet. In that chapter it will be shown how we may develop further the old view that the order is (1) a series of vowel-labial-guttural-and-dental, a b c d, e f g θ , i k, o p q t, with (2) some losses in the third row, (3) some additions of liquids, and (4) addition of sibilants irregularly.

All this has long been recognised, and it is granted that this order belongs to a stage long before the separation of Phoenician and Greek, as the losses and gains are found alike in both. The old order was already therefore lost to sight when the Greek parted from the Phoenician. Now the point as yet ignored is that the Greek has the whole of a fifth series, and the beginning of a sixth, $\nu \phi \chi \psi$, ω The sign ψ is of varying values, ks, ps, and tz in different countries; it seems to have been a sibilant dental form, which might well be at first. Further, on recognising these six rows of values of the same construction, we see that the liquids L, M, N, are put in at the middle in a neutral position, as I further suggest probably on the handle of the primitive hornbook. Now it is always granted that the Greek had broken up this old order, before it parted from the Phoenician; and yet, nevertheless it has a further form of the old order, in the 5th and 6th series. Therefore it is apparent that the 5th and 6th series cannot have been composed later, but must be a primitive feature which the Phoenician has lost. It is true that the Greek may not have had these signs in use at first, but if so the Greek must have taken them over from some more complete form of the alphabet, from which it supplemented and made good the losses of its Phoenician source. However this detail may be, the Greek maintenance of a piece of the old order, which was not in Phoenician, shows that the Phoenician was a reduced form of a fuller original.

(8) In the old view of the solely Phoenician source of the Greek alphabets, it was difficult to see why there should be so much diversity between them. If a single source sufficed, why should such gratuitous confusions of letters and varieties of forms have arisen? The muddle of B for e, of ξ and ζ for i, of Γ for b, the confusion of g and l, of s and m, all seem madness if one clear and simple Phoenician alphabet was the source, as none of these confusions exist in Phoenician. But when we now see the great diversity of the signary which underlay the whole of the alphabetic sources, it is only natural that different cities should have started with different materials. Thus Korinth began with a b also belonging to Cyprus and Egypt, with an i belonging to Crete and Karia, and with an s belonging to Karia and Spain. The general signary explains the position entirely, though it is quite insoluble on the hypothesis of a Phoenician source.

We have now seen, by eight different lines of

evidence, how it is unlikely or impossible for the short Phoenician alphabet, on any similar body, to have been the starting point of all the systems that are found. On the contrary all the material shows, both by direct historical instance, and by inference from its use, that a wide-spread body of signs—or signary—must have been in more or less general use, and that the shorter alphabets were selections from such a body.

CHAPTER IV

NOTES ON VARIOUS SIGNARIES

WHEN we turn from the general questions which we have been dealing with, to look at the material in detail, the first mode of regarding it is by taking each signary as a whole—that is, taking each column of the tables one by one. Thus we deal with each system of signs of each country, regarding its source and character; while in the succeeding chapters the history of each sign through various lands is traced along the lines of the tables.

It should first be stated that no phonetic values are known for any of the signs in the first six columns of the tables. In Roman Egypt some values are known by comparison with Asianic alphabets. Most of the values are known in Libya, but some signs are drawn from untranslated inscriptions: the same is the case in Lydia. No values are known for the signs from Crete, Phylakopi, or Lachish. All of the other columns contain signs of known values, the sounds of which determine the relationship of the signs from one column to another. The various signs of which the values are not known are here classed entirely according to their forms. In many lines the forms are peculiar, and when we look at such forms as in lines 8, 17, 20, 24, 31, 43, 45, 58, or 59, we see that such are not at all likely to be independently invented in different centres.

It is always granted that there is a connection between signs or letters which have the same value and the same form; and it seems impossible to assume that when the form is the same, and the value is unknown, the forms have no connection with each other, or with the same form of known value in other lands. For instance, to look along the first line at the A sign, every one agrees that where it is of known value it is connected; but it would be absurd to say that in the columns where the values are yet unknown the A signs have no connection with those in any

other column. The chance limits of our present acquaintance with the sounds of the signs cannot be supposed to have any connection with the size of groups of signs that are really related to each other. [We must in all reason grant that all similar signs are most likely to be connected with a common source.]

If then the large number of peculiar forms must be granted to be respectively connected throughout, there is no reason to deny the connection of the simpler forms, though such may have more risk of being linked by a merely casual connection. For the present the more likely condition is that all of the examples in any one line are due to copying one primitive type.

Another consideration, however, now comes into play. The phonetic values are not an absolute proof of connection; the same sign may vary in pronunciation in different lands. In line 12 the identity of the signs is obvious, but they have the allied values of *p*, *b*, and *v*. In line 18 forms that are alike have the values *p*, *b*, *v*, and *w*. There is nothing surprising in this, as these sounds in many instances are interchangeable, as we shall note in going over the letters in detail. But, to avoid any uncertainty, all such variations are marked here by small roman type placed by each. Again, in 56 there occur for the same sign the values *ss*, *s/h*, *z*, and *tz*; in 58 the values *ks*, *tz*, and *ps*. There is no difficulty about such variations, only the signs must not be classed solely by their sound, but in allied sounds the form must obviously determine their original connection.

Badly made forms of signs are often of value as showing in what way their composition was regarded, for instance, 44 in the 1st and xviiith dynasties is seen not to be regarded as two triangles, but as two parallel lines linked by a cross, which agrees with the *m* value in later examples.

An important consideration is the writing material, as shown by the forms of the letters. It has long been recognised that a brush- or pen-writing has rounded forms, while a chisel-cutting has square forms and straight lines. Further, it may be seen that pen forms tend to be compact and round, but not to cross the strokes, as that leads to blotting. Brush forms run to long vague strokes, as the tails of Phoenician letters, on the Roman scrawls; and owing to the dryness of the strokes there is no objection to crossing, as in Chinese. Clay-writing with an impressing stroke is always built up of short straight lines, as cuneiform. But clay-writing with a scraping

stroke has short lines, owing to avoiding too great a ruck of scraped clay, curved lines owing to play of the hand, and disconnected lines owing to the wish to keep the ruck from blocking a previous line, and to avoid tearing away the corners where lines cross. This is specially seen in the Cypriote writing, which was evidently scratched on soft clay, as in Crete and Phylakopi. Chiselled forms are compact, with lines straight where possible, and with joined forms as much as possible to save cutting neat ends to the lines. The extreme form of this is seen in the Libyan inscriptions, where there are scarcely any curves left. This type might also be the result of wearing out letters by scraping with a piece of sandstone or flint. The marks scratched on pottery are seldom curved, as it was evidently a difficulty to work round; long scratches with a flint point, sometimes sawn deep into the sherd, are the usual method of marking, running into long tails and scores.

We now turn to the details of each of the columns of the plates ii, iii, and iv.

The columns of the prehistoric Egyptian signs are entirely derived from the marks upon pottery found in the forms of that age. These were all marked by the owner, being cut into the finished pot. The tool used was doubtless a flint flake. It is seldom that two signs are found together, and these are probably all in the stage of owner's marks. Many figures of animals, and some of men rudely scratched, are also found: they have no feet or hands, the limbs merely ending in points.

The ist dynasty signs are also cut on pottery, but more firmly, and sometimes mixed with regular hieroglyphs. Groups of two or three signs are not uncommon. The whole of these are exactly dated by the pottery belonging to the tombs of various kings of the ist dynasty.

The column of xiith dynasty signs includes scattered examples from the ivth to the xiith, and some rather later. They are mostly scratched or cut on pottery, but some are on wood. Here we meet with a group of five signs for the first time, cut around a cylinder of wood, which formed a tool of unknown use. This earliest inscription of signs is given on pl. ix. On the pottery of this age a few marks are found which were scored in the wet clay; these were evidently made by the potter before baking.

In the xviiiith dynasty column are included a few earlier signs. At this period the marks are rather more oftener used by the potters, especially such

curved forms as 36, 53, or 55, though the owner's marks are still by far the more usual.

The sixth dynasty ostraka are a class apart. They are here published in photograph, in the Frontispiece, as they show the earliest regular use of the signary for sentences. It is obvious that they are mixed with one or two hieroglyphs, such as the use of *neb ta* or *neb tau* (figs. 4, 6), to express the king of Egypt. Beside these there are one-third of the forms that seem to be outside of the usual signs which are here tabulated. But the other two-thirds accord well with the signs of earlier times, so far as the forms of thick ink-writing can be like those of scratching on pottery. These ostraka were brought from a Qurneh dealer, along with dozens of others also on limestone, ink-written in hieratic. As when I got these the Ramesseum was then being cleared out by the Government, and work was going on at the tombs of the kings, these probably came from one or other of those sources.

The signs from Roman Egypt are all from Diospolis (Hu), and are probably due to a garrison of men from Asia Minor stationed there. Some signs are from a continuous writing scratched on a potsherd, others are found very coarsely cut into the thick pottery stands, which served as tables for the garrison. Yet, if these were of Asianic origin, it is singular to find here the *yod*, 8, of Phoenician form, which belongs in earlier ages to Egypt, and is entirely unknown in Asia Minor. The same is true of the sign 59, and both of these are on the pottery stands. It may be that some of these signs were survivals in Egypt.

The Libyan alphabet has been partly worked out from ancient inscriptions, and the modern Tifinar script is clearly descended from it. But though the majority of values are thus known, there are many other signs also in the inscriptions which are included here, classed according to their forms only. The use of this alphabet extends, as Berger says, from Sinai to the Ferro isles; and in *Gizeh and Rifeh* I have translated two gravestones found on the east of the Delta: these must be early Libyan, as they were much weathered and decayed when re-used for roofing in a Roman grave. The Lydian script has not been fully worked out, and beyond the forms in Sayce's paper of 1905 the inscriptions have been searched for other signs. The Lykian, Cypriote, and Runic are taken from the usual authorities.

The Karian is of course mainly drawn from Sayce's long paper in *T.S.B.A.* ix, 138, but with

additions from his subsequent papers. It is of the greatest value as being particularly rich, and giving values for the signs 5, 15, 36, and 43, which are not even found in the Spanish alphabets.

The Spanish alphabets, north and south, offer some difficulty as to their values. The latest authority is Hubner's *Mon. Ling. Iberici*, and naturally we might accept that as final. But in the values of some letters he runs contrary to all previous students: especially in treating the *tz* 57 as *t*, and putting the *q* 31 down as *tz*. He also shifts the *m* 44, 45 to *tz*. The matter is complicated by his blind adherence to the Phoenician alphabet, thus reducing to the bare limits of 22 letters all the various sounds recognised by others. The questions of the attribution of coins, on which these readings depend, are so difficult, owing to the differences between the Spanish and the classical forms of words, that it would be a long affair to really judge Hubner's grounds. There is, however, an external clue; and when we see that the other students in their values of 31 and 57 agree with the Karian alphabet, which is so similar to the Spanish in other respects, it seems probable that such values should be accepted, and they are so taken here. I have also occasionally followed variants found in duplicate inscriptions on the coins, as in 13, 32, 33, 46, 48, in which cases there appeared to be a kinship with other alphabets.

The remaining columns of alphabets are all taken from the well-known authorities. The signs found at Lachish are specially interesting for comparison with the Phoenician, as they are south Phoenician forms of early date, showing six letters (and some variants) which were lost in the northern Phoenician.

The list of publications used will be seen at the end of chapter I, and the detailed references of each of the Egyptian signs in the key, pl. vi.

CHAPTER V

THE VOWELS AND LABIALS

See pl. ii, following the lines of the tables

THE order adopted here for all those signs with known values, which can be compared in many lands, is to group them in the primitive order of the alphabet—vowels, labials, gutturals, dentals, liquids, and sibilants. This order has the advantage that the cognate sounds which are interchangeable are kept

together. If once the European order is given up, it is better to form a classification on historical lines than to adopt the partial changes of Lepsius, or the variation of Levi, which are only confusing without giving a logical basis.

The order of the columns has been carefully considered, to show their connection. The Egyptian forms, as being by far the oldest, lead the way, and must be kept together. The Libyan should not be separated from them. The Asia Minor forms come next, as they are much more similar to the primitive than they are to the European forms. The Runic is put before the Karian, as it seems to be nearest to the Asianic. The Spanish, so closely allied to the Karian, follows that. The three South Arabian alphabets, which are akin to the early signs rather than to the Phoenician, follow next. Beyond comes the intermediate group of Crete, Phylakopi, and Lachish, leading to the Phoenician; and after that succeed the Greek alphabets, so largely influenced by the Phoenician. Lastly come the Italian alphabets, which were influenced by the Greek. We shall now consider each line separately.

Line 1. It seems strange that two forms have existed since the 1st dynasty, one with two equal legs, the other with only one leg; and this latter form, of the xiith dynasty, is the origin of the Greek minuscule form, which was also used in early uncials. In order to distinguish the one-legged form from *r* in Lykia and Spain a short tail was added, a distinction which afterwards became fixed on *r* itself. This tailed form became fully established in Italy as the Faliscan. The one-legged form was used by Phoenicia, by the early Greeks, and also in Italy. It has served as the base for the minuscule of modern times in a different construction to that which led to the Greek minuscule, not *a* but λ . The type with a V-shaped cross-bar occurs as early as the xiith dynasty (*Ill. xv*) and with a very deep V-bar and rounded head (*K. iv*). In Spain it dwindled to a mere triangle.

2. This curious form, with value *ai* in Karia, is also known from the prehistoric to the xiith dynasty, but never took root elsewhere. It is probably a form of the next.

3. This form, which lasted through the dynasties in Egypt, continued in Libya, Spain, and Arabia, and probably the same is seen in a variant in Karia. The values vary, *he* or *a* in Arabia, *ai* in Karia, and *u* in Spain.

4. The three-stroke *e* is found at all times in two varieties, both sloping down and square. Rarely

it was reduced to two strokes, and was then only distinguished from *f* by the direction of the strokes.

5. The closed *e* is rare, belonging to Karia and Crete, and curiously appearing in a modification at Korinth. It has, however, an early ancestry in Egypt.

6. The tree-form *e* belongs to Spain and Lydia, and it is very likely that it originated the simpler form in Arabia. It should probably be accepted as the value of the same sign in Crete and Phylakopi, as well as in Egypt.

7. The plain stroke *i* has that value in the great alphabets of Karia and Spain, as well as in all the western alphabets after the archaic. So simple a mark when standing alone naturally might not have an intentional value, so the connection of the early occurrences in Egypt cannot be proved. The relation of it to the next sign, the *yod*, is not so direct as generally stated. The fact that the Greek alphabets accept one or the other, but never both, has led to the view that the plain stroke is merely the *yod* simplified, and the name *iota* agrees with this. But on the other hand both forms were used in the Runes and in Spain; and the stroke (with a little ring) occurs in Arabia without the *yod*, showing that it was separated from *yod* while the Arabian and Mediterranean stocks were in common. It cannot be looked on therefore as a Greek innovation; but whether formed from *yod*, or no, it is at least a pre-alphabetic form.

8. The *yod* is of so peculiar a shape that we may safely identify it in Egypt with the Spanish and Phoenician forms. We can see that a secondary form like N was derived by omitting the middle stroke, see Libya and the Runes, and this was turned to the position of Z. Hence come the three-stroke *i* forms of the archaic Greek. The separation of this from N and S, when the values are unknown, is a difficult question which we shall deal with under the sibilants. The Cypriote *ve* seems connected with this.

9. The *o* in both square and round form is found in Spain, and doubtless the same sign without values in Egypt belongs to this. The difficulty of cutting a round *o* on pottery or stone would lead to squaring it; and the presence of the round form nevertheless on these materials shows that it was the original intention, and that the square is only an accommodation to the material.

10. The *y* or *upsilon* is one of the most widely-

spread signs. The cursive form leads to a sloping tail, as in later Egypt, Libya, Lykia, Karia, and Roman minuscule; or else to a ram's-head form as in Cyprus and Crete. The loop on one side of the stroke begins in the xiith dynasty, and appears evidently as a cursive form in Phoenicia and Thera as well as in Spain.

11. The long *o* is primitively three sides of a square somewhat drawn in at the base, as seen in the Runes and in Karia with known values, and doubtless it is all one with the Lachish and Egyptian forms. The cursive treatment rounded it, and added a leading and following stroke as in Spain, and also in later Greece; and this re-translated into stone, or more probably wood-cutting, made the closed form seen in the Runes and in Spain.

THE LABIALS. 12. The three sides of a square is the sign very familiar as the Hebrew *beth*, though the Phoenician and Greek adopted the closed form. The open square occurs in Egypt and Arabia, but it shows a tendency to draw inward in the Runes, and the Runic form cropped below seems to have survived in Melos and Korinth. The top and bottom closing in further give the incurving which starts the closed form.

13. The closed form begins with the xiith dynasty, and continued in Phylakopi, in the south Phoenician of Lachish, and in Arabia where it was rounded. This must also have been familiar in Greece, though not used monumentally, as it has been preserved in ϵ , one form of the minuscule β .

The partly-closed form occurs in Crete and Phoenicia, in much the same stage; while the entirely closed form begins as early as the xiith dynasty, continued later in Egypt, and became the standard form of both Greece and Italy. In Spain it seems as if the C form had joined ends. The single-loop *b* of Lykia and Karia is a strange forecast of the Roman minuscule, and suggests that cursive writing was very familiar in south Asia Minor.

The sounds of all the labials are hard to fix. This sign 12, 13, is what we call *b*. Yet in Greek it was certainly *v* in the second century A.D., as used for the Imperial name Berous—Verous; and also three centuries earlier, as used for Dabid. The modern Greek pronunciation, as in Vasili, certainly goes far back. Yet in the Arabic, as *beyt*, and Hebrew, as *beth*, it keeps the *b* value till now. B does not occur in the earliest Greek alphabets and is a very rare letter in early inscriptions. On the Delphic tripod it is never required except in the name of the

Ambrakiots, where *p* does duty for it. The sound was evidently unfamiliar in Greece. The absence of distinction in modern Spanish between *b* and *v* sounds, probably represents the ancient idea; and a soft *b*, with little or no explosion, may be the best equivalent. It is therefore not surprising to find the values *p*, *b*, *v*, and *f* for this sign.

14. This top-stroke *f* was common in Asia Minor, and has a long history in Egypt. It passed to Crete and Phylakopi, but was avoided by most of the Greeks, only appearing at Korinth and Elis under the quaint name of the *digamma*. Italy, and hence modern Europe, fully accepted it.

15. A variant form is the mid-stroke *f*, the value of which is given in Karia, and is kin apparently to the Cypriote *pa*, *pha*, or *ba*. The Runic, Elis, and Etruscan also kept it, but otherwise the top-stroke form has driven it out.

16. The *p* was originally a sort of walking-stick hook, as it still remained in Karia. The hook developed, and finally closed, as in the Spanish and Roman *p*. The prolongation down into a two-legged sign is a late Greek device to avoid confusion with the *r*, beginning, however, as early as the Abu Simbel inscriptions. The value has not been fixed throughout, varying to *b* is all the *-polis* names, and uniformly becoming *f* in Arabic names.

17. The second *p* or *b* is interesting from its rarity. In Spain and Korinth there occurs the strange form like a rectangular reversed *s*. This is evidently linked with the Cypriote *po* or *bo*, and the *pe* or *bi*. The Egyptian forms of the prehistoric and xiith dynasty seem to be the originals of these forms, which passed by another line of change into the Sabaeen *b*. The Egyptian form appears as *b* at Megara in late times.

18. The *phi* sign has a long history and diffusion, varying as *b*, *p*, *ph*, *v*, and *w*. The identity of the forms, both with a long-stroke and a short-stroke, has been well kept up from Egypt to Italy; yet, though thus rooted in the west, it has entirely disappeared now outside of Greece. It was not a rival of *f*, as the Faliscan and Oscan had neither, and the early Italic and Etruscan had both letters. Its Cypriote form had the value *pu* or *bu*.

19. This letter has the value *vu* in Karia or *u* in Spain, Greece, and Italy. It kept the value *u* in Rome in the ist century, as in the Greek transcription Ouespasianos; but it was sharpened into *v* on reaching the second century, when rendered in the name Berous.

20. This sign was wide-spread and vigorous in the earlier times, but obtained no footing in the Phoenicio-Greek development, and only survived in the Faliscan. Its value is well marked as *v* in Karia and Spain or *vo* in Cyprus, thinned to *e* in Lykia. The forms where the mid-stroke cuts one side, as in xiith dynasty and Karia, suggest a connection with the cognate 14 *f*: but the usual broad-arrow form marks it off as a separate letter.

CHAPTER VI

THE GUTTURALS AND DENTALS, PL. III

THE aspirates and gutturals are so blended that they can only be treated as one class; *h*, *kh*, *k*, *g*, and *q*, each passing readily from one into the other in certain instances. The softening of *k* and *g* into sibilants as *ch* and *j*, though familiar in modern times, seems happily less common anciently.

21. The short simple curve of the Egyptian examples is evidently the necessary prototype both of the sharp angle and of the large curve, which seem so diverse in the later alphabets. The hard *g* was always retained as the value, except in the Latin, where *k* was omitted and the sound transferred to this sign. The *g* value is still kept in South Italy, where the *Corriere* paper is shouted in Naples as *Il Gorrier*. In Cyprus it appears as *go*.

22, 23. Forms of the three-stroke *g* can hardly be separated, except that some have an upright stem and shorter ends, while others are sloping in the middle. The distinction between these and *s* is hard to fix if the values are unknown. Evidently the difficulty was felt in the xviiiith dynasty, where a like sign is distinguished by two dots, much as in Spain the *kh* 27 was marked with dots to distinguish it from the similar *t* 37. The Nabathaeen *kh* 23 is apparently of the same family. The Phoenicio-Greek alphabets entirely ignored these signs.

24. The barred aspirate has something to show for its old name of a gate or door, as in the xixth dynasty and in Crete it shows the pivots very clearly. It is obviously the same sign running through from prehistoric Egypt to Italy, but it was strangely omitted in Asia Minor and Arabia.

25. The single-bar *h* was probably a weaker form of the same letter, which appears at Lachish but

not in Phoenicia. It was entirely absent from Asia Minor and Arabia.

26. The skew-cross *h* is but little known, as it was generally avoided by the Phoenicians and Greeks. It appears together with the X *kh* in Korinth, Athens, Egypt and in the Faliscan alphabet, so it cannot be confounded with that. It was preferred to the barred forms of *h* in Asia Minor, but it was there made symmetrical.

27. The diagonal cross *kh* belongs to Karia, the Greek mainland, and Spain, while it had the heavier value *g* in Runic; but it was entirely absent in Arabia, Phoenicia, and its colonies, and in Italy.

28. The star *kh*, commonly used in Spain, Karia, Cyprus, and Egypt, was never used by Phoenicians, Hellenes, or Italians. It had the value *ku*, *khū*, or *gu* in Cypriote, and plain *h* in Runic.

29. K begins as early as the 1st dynasty in exactly the modern form. The sloping stem with two short strokes on it is evidently cursive, and arose later, becoming the usual Phoenician form. It was not, however, adopted by Greece and Italy, where the full capital was always used. In Cypriote the sign *ke*, *khe*, *ge*, or *ghe* seems to be derived from it; but—as in the previous sign—with an additional stroke.

30. The Q or *koph* is a widely-spread sign, which penetrated Italy, yet which completely died out in Greece. In its early forms it seems to have a short stroke added to the stem in some cases. This may be connected with a curious decay which the sound has, in dropping the explosive velal, and becoming only a velal breathing, as a modified *a*. This is characteristic of its Egyptian pronunciation at present, and also seems to have taken place in Karia, where it was a modified *ā* and in Spain an *o*. The other modification which it undergoes is in bringing the explosion forward in the mouth, and so making it into a *g*, as also in Egypt now. This took place in Runic, where we must recognise the same sign, especially in view of the Thamudite form.

31. This curious sign was entirely banned by the Phoenician and Greek, and so dropped out of use in Europe. It is common in every period in Egypt, and the value is given as *kh* in Spain or *go* in Karia. In modern Libya it is the soft *g* or *j*, and anciently the *j* was sharpened to *tz*. It also reached Crete, and probably South Phoenicia in Lachish. The form open at one end seems to have the same value.

32. The last guttural is one that spread far, and yet has died out although it had a footing in Italy.

The Egyptian examples strongly suggest a sprouting herb as the origin. The Spanish examples are very diverse, over a dozen varieties being used, some probably with a syllabic value as *ka* and *ki*. The rounded form like *e* appears in Arabia as well as Spain. The Phoenician avoided this sign, as also did the early Greek, who drew from that source. But a western class persisted in Elis, Pelasgic, Italy, and Etruria, showing that it had covered much ground originally.

THE DENTALS. 33. The triangle *d* is one of the oldest and most generally used signs. As already noted, it is probable that it gave rise to the regular hieroglyphic, with value *d* or *du*, the sign of giving; and *da* is one of the earliest and most widespread roots having that meaning. The value of the sign in Spanish is *du*. The rounded form is European, occurring in Athens and Italy, and in the Runic signs; it is evidently a cursive corruption of the triangle.

34. The single-bar *th* is usual side by side with the cross-bar; possibly therefore it had a slightly different value. Most likely the Greek and Italian form with a central point is a variant of this.

35. The cross-bar *th* is the more usual, and is found square or round according to the influence of graving or writing upon the script. The sound seems to have been almost universal and only to have been neglected in Asia Minor. The Arabian form is a cursive corruption, in which the turn in of the circumference indicates the cross lines.

36. This is an interesting letter, from the very peculiar form of it, and its sparse appearance. The value *dh* is given in Karia and Lykia. It appears from the earliest times in Egypt; and the more formal shape of it in the xiith dynasty is singularly like one of the Cretan signs. It also occurs at Lachish, but was omitted in Phoenician and in all the Greek and Italian alphabets. This sound has short measure also elsewhere; in Anglo-Saxon it was written, and is still required in English, as in *the*, *this*, *that*, but the form has been dropped. The cause probably is that—not being in the Italian founts—printers used *y* for it, and after some generations of *ye* for *the*, the idea of it has been lost. In the Jutish pronunciation of East Kent the *dh* has been modified to *d*, and words such as *this* and *that* may be heard as *dis* and *dat*.

37. We now reach the variations of the cross *t*. The diagonal cross has this value in Libya, Spain, and Arabia; and with this may be classed the Lachish

sign, and probably that of Crete and Phylakopi. This cross in Egypt is here ranked with the *kh* of Spain and Greece, as the signs in those lands seem rather more generally linked with Egyptian forms, but the separation of the cross signs between *kh* and *t* is far from clear.

38. The upright cross is entirely absent from the great alphabets of Karia and Spain; but the Arabian forms join with the Italian.

39. The usual *t* is widely spread, and Phoenicia pushed it in Greece and Italy, but it is unknown in Arabia. In Cyprus, turned on the side, it is *ta*, *tha*, or *da*.

40. The arrow *t* is *to* in Cypriote. It was used in Egypt, Libya, Spain, the Runic, Cyprus, Crete, and Phylakopi; but the Phoenician, Greek, and Italian would none of it, so it passed out of living use.

CHAPTER VII

THE LIQUIDS AND SIBILANTS (PL. IV), AND APHONICS (PL. V)

WE have now reviewed the material which was first systematized in alphabetic series, and we must turn to the additions which were found needful to complete the sounds in use.

41. Two shapes of *l* are usual, the acute angle and the right angle, 42. The acute form was much the more usual, and the bend was always at the top until the Phoenicians turned the bend below; the Greeks, however, would not follow, except at Athens, and it was the Italians who finally accepted the lower turn. This clinging to the top bend is strange, as it was almost the same as *g*, and must have made much confusion. The cursive form, which was like the Greek, appears in the xiith dynasty Egyptian.

42. The square *l* was preferable, as distinct from early *g* forms. But, old as it was, the Phoenician and Greek would not have it; however, it occurs at Lachish. In Cyprus the modification has the value *li*.

43. The *m* signs are a puzzling group, 43-46; they are all guaranteed by alphabets of known values, they seem to run one into the other, and yet there are apparently different sources mingled. The two-hill *m*, or *mi* in Cypriote, is an early shape in Egypt, before the similar hieroglyph *du* arose. It travelled as far west as Karia and Crete, but there vanished. In Arabia it was turned on its side, and a similar rotation is also seen in 49 (Thamudite) and 55.

44. The diagonal cross between two vertical lines was very common in Egypt, and appears in Spain and in the Runic, travelling westward and north without being known to the Asiatic or Greek world.

45. The mid-stem *me* has many forms, but all marked by the upright mid-line; it may well have been a syllabic ligature of *m* and *i*. The value is given in Spain.

46. The strokes with diagonal connecting-bars seem to form one group of *m*, without mid-stem or base line. The form in the xiith dynasty is so close to the Lydian that it is here brought in to the series. The three linked lines are also the usual Italic forms, as in the last three columns.

The Cypriote *ma* is only the normal *m* broken up by the influence of writing on soft clay. The long stroke on one side, seen in the Lydian, Lykian, Phoenician, and early Greek forms, is merely due to cursive brush-writing, and has no original value.

47. The *n* forms are simple and clearly connected, presenting no difficulties. It is curious that this sign does not appear till the xiith dynasty.

48. Though the sound of *r* is often confounded with *l*, especially in historic Egypt, yet the series of distinctive forms of both signs runs back to the earliest times. In Cyprus the sign *ro* was tilted over partly, but seems to be the same form. The short tail, to distinguish this from *p*, was tried in Korinth, and Athens and in the Runes, but did not root well till in Italy, where it began in Faliscan, and soon became general.

THE SIBILANTS. Here we meet a most tangled group, the variations of which cross their values in a confusing way. The sibilants were the latest and worst organized part of the alphabet.

49. The two-bar *z*, linked by a stem, is of wide diffusion, but varies much in the length of stem. It was usually *z*, but was used also for *s*, as on coins of Smyrna.

50. In cursive writing the mid-stem of 49 was reduced to a mere tail.

51. The three-bar *s* had a sharp thin sound if we credit it as the *samekh*. It also dropped the mid-stem in cursive writing, as in 52, from Egypt, Spain, and Phylakopi.

53. The three-stroke *s* or *sigma* has two forms, one with the mid-stroke sloping, the other with it horizontal. The cursive form, curved instead of angular, begins as early as the prehistoric, and is freely used on the potters' marks of the xviiiith

dynasty. It also prevailed in Lykia, and the double sign in Cyprus has the value *zo*. It is quite absent from Arabic and Phoenician, yet it flourished in Greece and Italy, and has ruled in Europe ever since.

54. The horizontal-bar form was common in Egypt, and reached Crete and Spain but otherwise perished.

The difficulty of disentangling the allied forms of *z*, *g*, and *s* can only be overcome by comparing all those of known values. It appears that the variations keep within some limits as follows :

Z forms have the top and base, or else the mid bar, horizontal for *z*, but all the strokes slope for *g* and *s*.

↓ forms have the stem vertical for *g*, but sloping for *z*.

ζ forms have the bends square for *s*, but at irregular angles, acute or obtuse, for *z*.

The horizontal bar *s* 54 is indistinguishable from *z*.

N forms are common to *g*, *s*, and *n*.

The types of different alphabets thus cross each other largely, and very likely these distinctions would not be found always to hold good. The separation of these letters therefore without the aid of known names or words cannot be safely attempted.

55. The four-stroke *s* is fairly clear, and only liable to some confusion with *m*. So long as the strokes were one below the other, as in all the early examples and in Arabia, it was safe. The Libyans, Karians, and Spaniards having no four-stroke *m*, set the *s* in this position. This was unhappily copied by the archaic Greeks and caused trouble with *m*. The Phoenicians avoided the confusion by turning the *s* over as W, but no other alphabet followed this direction.

56, 57. A sharp sibilant, whose values are varied, is only preserved in the Libyan, Karian, and Spanish with known sounds, of *z*, *ss*, *sh*, *tz*, and *t*. This hissing sound was avoided by the Phoenician, Greek, and Italian, and so is unknown in the west. The trident form, with or without a long handle, is common in Egypt during the historic ages, and one example survived in Arabia; in Cyprus a somewhat similar form has the value *sz*, and it is known also in Crete and Lachish. The absence of this sign from all western and modern alphabets has brought it to oblivion.

58. A somewhat similar sound is attached to another three-pointed sign; but as this and the

previous are both found in various ages in Egypt they can hardly be variants of one sign. This form is the older, going back to the early prehistoric age. It has the values *ks* in Runic, *tz* in south Spain, and *ps* in Greece. A similar confusion is heard in the name of the Danish quarter of Dublin, where *Ostmantown* has become *Oxmantown*. From its position as a dental in the 5th Greek series, it seems probable that the Spanish *tz* is its original value, a sibilant dental, much like the modern Italian *zz*.

59. A cognate form has a closed top; but only two examples survived outside of Egypt, the *tz* of north Spain and Halikarnassos. The bars on the stem, of this and the preceding form, are probably ligatures of vowel sounds.

60. Lastly there is another sign in Egypt, of which only one value has been preserved, the Cypriote *sz*, which also appears in Crete.

Aphonic signs. There is but little to be said about the Aphonic signs, pl. v. Those shown here seem to have had some currency, as they are found in more than one age or country; but they did not survive into the regular alphabets of later times. Two of them might have values assigned from the Cypriote syllabary; and two resemble signs in the Sabaean alphabet, but that alphabet tends so much to such square forms that these values are uncertain. It appears safer to class all of these as of yet unknown values, or *aphonic* so far as our knowledge goes; though probably they all had sounds attributed to them, like the other signs which passed on into the alphabets.

One consideration should be noticed, as to the bearing of these on the whole question. There are some sixty signs which are of known values, and beyond these only twenty-one remain which were in use. Thus it cannot be said that there is such a multitude of signs that it is easy to pick out those agreeing to known alphabets. Of all the signs which appear in more than one country, three-quarters belong to known alphabets as already described; and one quarter only have not survived to the later stages. This is quite as small a proportion of aphonics as could be expected, representing the loss of signs between the two stages of (A) their having some general recognition, and (B) their surviving into the later regular system of a recorded alphabet. Of the still earlier stage, of signs which never attained to general use, there are not more than a dozen in any one period. Thus the great majority—about two-thirds—of all the signs found attained to

general currency, and passed into known alphabets; and those extinct, as local signs and aphonics, are only a fraction of the whole. It is remarkable that so few signs passed out of use, and we certainly could not expect a larger proportion than two-thirds of them to attain to general currency in times late enough to appear in the alphabets. There is no possible ground left for raising the objection that only a small number of the signs have been arbitrarily picked out in the present work to fit the known alphabets: on the contrary it is astonishing how few signs are outside of the alphabetic survivals.

CHAPTER VIII

THE ORDER OF THE ALPHABET

HAVING now passed in review all the signs which seem to have had a long or wide-spread use, we can turn to see what may be gleaned as to the history of the ordering of some of these signs into a regular series. By the systematic arrangement of some of them, they were rendered easier to learn and to remember; they supported each other to the exclusion of the unregulated signs, and so obtained a permanent preference; and lastly they were adopted as numerals, and thus they were thrust upon all the world of trade as an exclusive system.

It had long ago been noticed by Lepsius, Donaldson, and Taylor that, embedded in the Phoenician, Greek, and Italian alphabets there is a repeated sequence of letters,—vowel, labial, guttural, and dental. What has however been ignored is that this system is extended a whole series further in the Greek than in the Phoenician alphabet, forming a fifth row and the beginning of a sixth. The liquids and sibilants were added later and form no part of such a scheme. If we follow the Greek alphabet we may put the original series in capitals, and the additions in minuscules, thus:

A	B	Γ	Δ	
E	F ζ	H	Θ	
I	•	K	•	
O	Π	Ϟ ϙ ϖ ϗ	Τ	Λ Μ Ν Ξ
Υ	Φ	Χ	Ψ	
Ω	•	•	•	

Some such grouping must have been that originally made, from which the alphabet has been read off across the columns. Further, such a grouping would be at first a standard, which would be copied and spread in order to reduce the vague mass of signs to order. It was thus the prototype of the mediaeval horn-book; and it was probably cut on wood or bone for current use. It appears then that we should think of it as a horn-book for learners; and as the horn-book has a handle, it seems not unnatural to regard the middle group of liquids as having been on the handle, outside of the systematic series.

Now in such a series we see that five letters are missing, marked here by circles; these are two labials, one guttural, and two dentals. The two letters, digamma and koph, which the later Greeks omitted are inserted in their proper place equivalent to the Phoenician.

We have already seen that the Phoenicio-Greek alphabet is only a selection from a much larger number of signs commonly used elsewhere. When therefore we notice that five signs are missing from the systematic order shown by the Greek alphabet, it is only reasonable to see if there is sufficient indication to show which of the signs of the pre-Greek signary had held these five places.

First we may notice that there is some parallelism between the upper and lower halves of the horn-book, as here illustrated. The 1st line is most like the 4th line, and the 2nd like the 5th line: observe B and Π, F and Φ, Γ and ϙ, H and Χ, Δ and Τ—the members of each of these pairs are more like one to another than either is to the others of their series. There is thus some suggestion as to the natures of the missing letters.

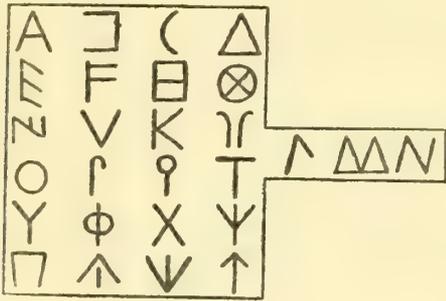
Of the labials—the second column—the third and sixth are missing, and—as we have just noticed—they should be nearly alike. Now no *v* is yet included in the Greek labials; but there are two *v* sounds among the general labials, which were well known in Karia, Spain, and Italy. It seems most likely therefore that nos. 19 and 20 in pl. ii were originally in the 3rd and 6th places of labials of the original system.

Of the gutturals—the third column—the 6th is missing, which is the parallel to κ. There is a well-known *k*, no. 32, spread in Karia, Spain, and Italy, and which was therefore likely to have been important in early times. As there is no other *k* which could take this place the probabilities are limited to this sign for the 6th place of gutturals.

Of the dentals—the fourth column—the 3rd and

6th are missing. The choice is closely limited by the small number of dental signs. Apart from those which are only variants of the present Greek dentals, there were only two other dentals generally known, *dh* 36, and *t* 40. There seems no choice but to accept these. Thus altogether there does not appear to be any likely alternative to these signs for the five missing letters.

We can now restore pretty closely the appearance of the primitive horn-book, following the early forms of the signs.



For convenience they are written here from left to right; and we cannot be at all certain that the primitive order was from right to left, though that is rather more probable, if there were a fixed order.

The reason that the signs of the last row soon fell into abeyance may well be that they were so much alike that they seemed confusing; and as alphabets tend to diminish by careless approximations of the sounds, so the last row was dropped from most alphabets, and the last but one, or fifth, row was also dropped out of the Phoenician.

The further letters that were inserted in the alphabet were *r* and the sibilants. It is likely that *r* had been omitted at first as equivalent to *l*, and that it was afterwards inserted next to the cognate forms of *p* and *q*, so as to be readily distinguished. In the same way we see that similar forms are grouped together in the modern Arabic alphabet reconstructed in mediaeval times (see Appendix). We cannot at present see any satisfactory reason for the position of the sibilants.

The question now arises, when and where was this system of the alphabet devised? There is a promising indication in the fact that the sibilants were disregarded. Had they been in frequent use we should have found a fifth column of sibilants, probably following the dentals. At first it might be thought that no language could be practicable with-

out sibilants. But they are entirely unknown in various parts of the world at present. The Polynesian languages generally avoid them; and nearer at hand in Europe we see that the French have steadily eliminated them, century by century, till there are only a few left of the sibilants sounded originally in their words. In past times we see how *h* stood in place of *s*, the Iranians writing of *haoma* for the Indian *soma*. Similarly now children acquire *s* last of all sounds, and use *h* instead of it, saying *hun* for son. There is nothing surprising in a people avoiding sibilants, but where was there such a people anciently? Unfortunately at the period which we should regard, before 1000 B.C., there are but few languages known to us within the possible region of the alphabetic system.

There is however another line of search, that of place names. A large number of these names have been preserved in the records of Egyptian conquests, and the list of Tahutmes III on the pylon of Karnak gives about three hundred names in Syria, extending up to the Euphrates. These are far earlier than any recorded languages of that region, and free from any subsequent mixture or changes. The northern part of this region is shown on pl. viii, the numbers being those of the names on the pylon in MARIETTE, *Karnak*, pls. 20, 21. The names are those of places that have been already identified in that region (*Student's History of Egypt*, ii, 330); the forms here are as in Egyptian, the modern equivalents are given in the *Student's History*.

It will be seen that of over thirty names here there is but one which has *s* in it. Two have the *j*, which is usually translated *s*, but which appears to have been *j* in this region, by the modern equivalents, 164 being now *Terija* and 215 *El Jineh*. Contrasted with this rarity of sibilants we see on the south half a dozen places bounding this region all contain *s*; to save confusion these names are not entered here, but the *s* or *z* in the name is placed alone. Beside the names which can be identified now, there are others which must be in this region as they are placed between two identified names; such are 123 . . Kthu, 124 Thuka, 284 Nepiryuru, 286 Attama, 287 Abrennu, 290 Annauy, 291 Tak . . u. These bring up the number to forty names, with only one (Magnasa 186) containing the letter *s* which is so common elsewhere. I am informed by Mr. T. E. Lawrence that even at present there are but few sibilants used in the speech of the people of this region.

In another line of search also it is possible to gain some later light on the region where the alphabet was systematized. After the grouping of the signs came the addition of the sibilants, and the omission of the less-needed signs. At this stage another system came into play, namely, the use of the letters for numerals. These ran Α to Θ 1 to 9, Ι to Ϛ, 10 to 90, Ρ to Ω 100 to 800. This system was quite foreign to the Greek mind; all the earlier Greek inscriptions state numbers either in words or in a numerical notation apart from the order of letters. The region where this numerical system of letters belonged is indicated by the use of it for recording dates on coins from fixed eras. The geographical distribution of the cities which used such dating will therefore throw some light on the centre from which it originated. It certainly did not begin with the Phoenicians, as there is no trace of it in Phoenician colonies. On marking on a map each of the cities thus using dates (see pl. viii) they are seen to be very thick all down Syria and scattered in Asia Minor, while there are scarcely any in Europe. The custom is therefore pretty clearly Syrian, and the dividing line, which has an equal number of examples north and south of it, is immediately north of Antioch, which may be taken roughly therefore as the centre of diffusion of the numerical alphabet. This is just the district where, as we have seen, the absence of sibilants indicates that the first system of the alphabet arose.

We must conclude then that in North Syria

originated the first system of classification; subsequently some signs were added, and others omitted, and then the use of the alphabet for numbers started from the same district. That Greece was indebted to North Syria for the alphabet is indicated, as Taylor remarks, by the Aramaean names of the letters alpha, beta, etc., ending in vowels, unlike the Phoenician and Hebrew; and this agrees with the tradition that the Asiatic Greeks of Ionia had the alphabet from Lykian and Kilikian tribes.

We have now reviewed the various evidences of the wide diffusion of the signary, from which the alphabets were selected, and the antiquity of the beginning of that system. The knowledge of the fuller form of the alphabet has enabled us to reconstruct the first arrangement, most of which still remains embedded in our own alphabet. That in turn has led us to see in Northern Syria the source of this systematic arrangement. All of this is but pioneer work; we know nothing yet of the linear writing of that region, or of most of the lands around; we might easily see ten-fold as much material come to light in a few years, if sites and excavators were propitious. These pages therefore appear rather as indicating the need of further research, than as professing to be a full statement. The main outlines are hardly likely to be changed, but the details will be increased far beyond what we have sketched.

APPENDIX

NOTE ON THE ARABIC ALPHABET

THOUGH at first sight the Arabic alphabet seems senseless in the irregularity of its order, yet the original construction can be traced, and also the reasons for the alterations that have been made. The letters in original order are :

1 Alef, 2 Be, 5 Gim, 8 Dal, 11 Ze, 16 Te, 21 Kaf, 23 Lam, 24 Mim, 25 Nun, corresponding to Alef, Beth, Gimel, Daleth, Zayn, Teth, Kaph, Lamed, Mem, Nun, of the usual Semitic order. Owing to the desperate corruption of forms in the Cufic, different numbers of dots were added above and below certain forms to distinguish the letters. It was then desirable to group these similar forms together in order to distinguish them readily. Hence after 2 Be, were put in 3 Ta and 4 Tha ; after 5 Gim were put in 6 Ha and 7 Kha ; after 8 Dal was the variant 9 Dhal ; 10 Re was put before 11 Ze, because as the

commoner letter it was not dotted. Another principle here comes in, that of grouping the sibilants ; as 11 Ze begins the sibilants, then follow 12 Sin, 13 Shin, 14 Sad, 15 Dad. After 16 Ta is the variant 17 Za. 18 Eyn and 19 Gheyn were perhaps brought in here owing to a similarity to the next signs. 20 Fe is like 21 Qaf, but having one dot it precedes Kaf with two dots. 21 Qaf is brought in owing to the sound being like 23 Kaf, which is in its old order, succeeded by 23 Lam, 24 Mim, 25 Nun. Lastly the three semivowels 26 He, 27 Wau and 28 Ye were banished to the end with a truly Semitic hatred of vowels. Thus the similarity of form has guided most of the rearrangement, and the similarity of sound has also had influence. If ever the Arabic alphabet is to survive it must go back to good distinctive Aramaean forms ; perhaps if such were introduced as "the Quran alphabet" the present disgraceful writing might be amended.

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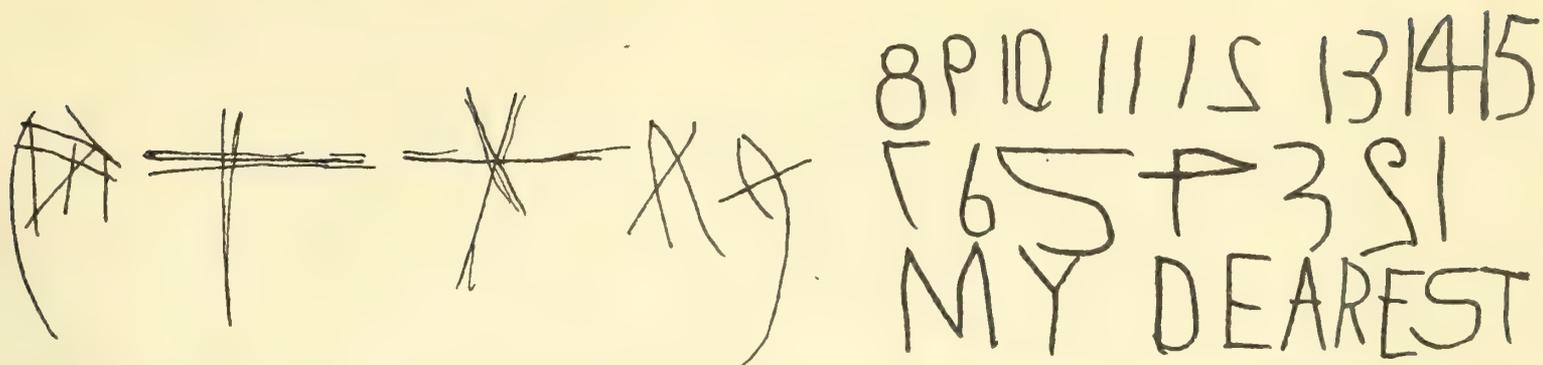
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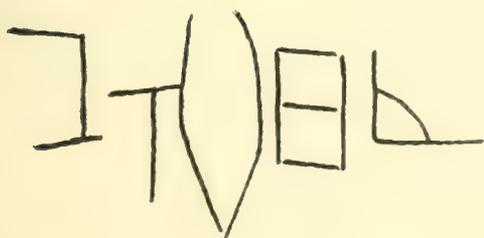
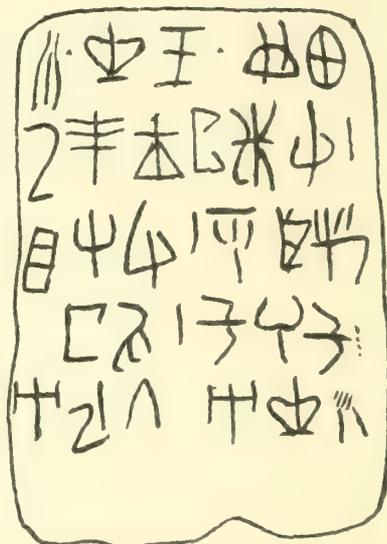
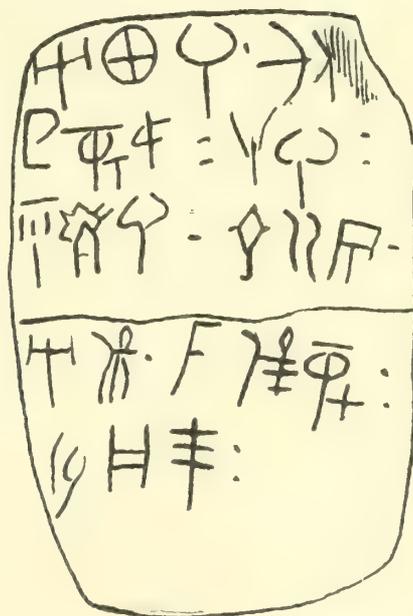
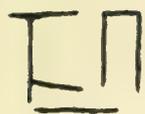


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