THE EGYPTIAN ORIGIN OF THE SEMITIC ALPHABET

By ALAN H. GARDINER, D.Litt.

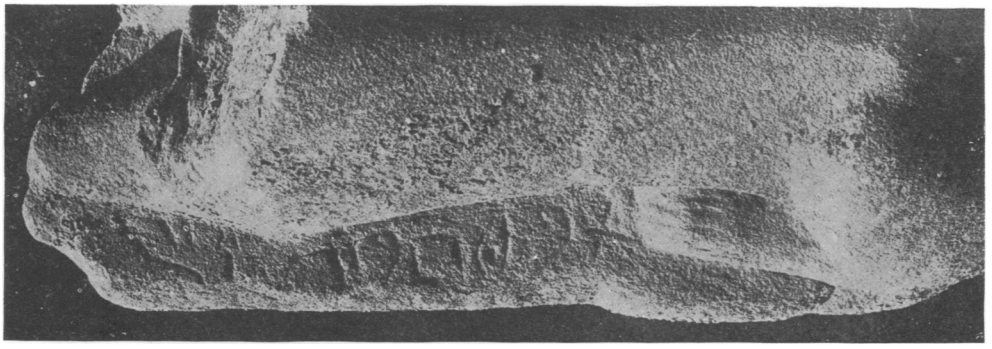
Among the unsolved problems of philology and archaeology few present more interest or more difficulty than that of the origin of the Semitic scripts and, derivatively, of our own writing. It is comparatively easy to trace the development of the various European alphabets out of the Greek, and, on the Semitic side, to follow the respective ramifications of the Phoenician and the Sabaean; the real *crux* is the common ancestry of these three. Until recently Phoenician was held by most scholars to have been the actual parent whence the Greek and the Sabaean, with their offshoots and its own, ultimately sprang; and for the moment it may suffice to state the problem from this point of view. About the tenth century B.C. there appears upon Syrian soil an alphabet of twenty-two linear signs, which is with sufficient accuracy for our purpose described as the Phoenician alphabet. It has been universally recognized that so simple, and therefore so perfect, an instrument for the visible recording of language could not conceivably have resulted from one spontaneous effort of genius. Cruder and more primitive methods of writing must obviously have preceded it, and since there are no traces of any earlier indigenous stages of the kind, scholars have agreed that the Phoenician alphabet must have been derived from, or in some way modelled upon, the writing of one or other of the older Mediterranean or Mesopotamian civilizations.

Here, however, agreement ends, and no specific proposal that has yet been made seems to have won more than a very limited number of supporters. Naturally Egypt was the quarter in which the solution of the problem was first sought; but the hypothesis of a direct borrowing from the Egyptian hieroglyphs, suggested by Lenormant, was later on abandoned by its own author himself[1]. A more closely-argued theory, according to which the Phoenician characters originated in the cursive Egyptian script known as hieratic, was subsequently advanced by De Rougé[2]; and this theory long enjoyed a wholly undeserved popularity. The attempts to connect the Phoenician with the Babylonian cuneiform writing, or with the picture-writing that preceded the

[1] François Lenormant's views were never published by that scholar himself, but were set forth by his pupil De Rougé in the book named in the next note. The present article practically advocates a return to Lenormant's view.

[2] De Rougé, *Mémoire sur l'origine égyptienne de l'alphabet phénicien*, Paris, 1874.

Front view



Left side

Right side

345, THE SPHINX (Brit. Mus., 41748)

latter, have proved equally sterile; more or less divergent systems have been propounded by BALL, DELITZSCH, HOMMEL and others[1], but no sort of unanimity has been attained even among those who are at one in favouring a Babylonian birthplace.

Egypt and Mesopotamia having thus seemingly failed to solve the problem, there is now a marked tendency to seek the solution farther westward, in Asia Minor, in Cyprus or in Crete. Thus PRÄTORIUS[2], an able and cautious scholar, would derive the earliest native Semitic writing from a syllabary resembling that later used in Cyprus. Sir Arthur EVANS[3] advocates its origin in the Minoan scripts discovered by himself in Crete, an opinion adopted in a modified form by DUSSAUD[4]. Professor Stewart MACALISTER[5] compares the puzzling and still wholly unique hieroglyphic script of the Phaestos disk. Professor PETRIE[6], lastly, argues that the Phoenician writing crystallized out of a widely diffused signary of which he finds evidence in all corners of the Mediterranean littoral.

To criticize these diverse theories would be a long and difficult task, wholly beyond the scope of this article. My main purpose here is to introduce into the discussion some remarkable evidence, hitherto only partially known, which would appear to put the case for an Egyptian origin on an entirely new footing. Unfortunately it will be impossible to dispense with lengthy controversial preliminaries, due to the fact that the problem is no longer merely that of the origin of the Phoenician script[7]. The main issue of late has been the relations of the Phoenician, the Greek and the South-Semitic alphabets, and it is only through a consideration of those relations that any conception can be formed as to the nature of the common parent, which it will be convenient to term the proto-Semitic script. Without some knowledge of the proto-Semitic script it would be obviously futile to attempt to track the remoter ancestor that lies behind it.

As lately as 1901 Professor LIDZBARSKI, one of the most eminent of Semitic epigraphists, was still able to regard the so-called Phoenician alphabet, in the form in which it is found on the most ancient gems and seals (9th century B.C.) and on the Moabite stone (*circa* 840 B.C.), as practically identical with this proto-Semitic script; and he therefore tries to indicate the manner in which the Sabaean and Greek forms may have been derived from the Phoenician[8]. LIDZBARSKI lays much stress on the fact that until considerably after 1400 B.C., the approximate date of the El Amarna tablets, the Babylonian cuneiform was the official script used throughout the length and breadth of Syria; had the Phoenician alphabet then been in existence, there would surely, he argues, have been some trace of it in the Canaanite glosses

[1] For a good summary of these, as indeed of the whole question, see GESENIUS-KAUTZSCH, *Hebräische Grammatik*, 28th edition, § 5, *g* (pp. 29—30).

[2] FR. PRÄTORIUS, *Über den Ursprung des kanaanäischen Alphabets*, Berlin, 1906. A translation of this autographed essay, the handwriting of which presents some difficulty to an English reader, has been published in the *Annual Report of the Board of Regents of the Smithsonian Institution* for 1907, pp. 595—604.

[3] A. J. EVANS, *Scripta Minoa*, vol. I, Oxford, 1909, especially pp. 77—94.

[4] R. DUSSAUD, *Les Arabes en Syrie avant l'Islam*, Paris, 1907, pp. 57—90.

[5] S. MACALISTER, *The Philistines*, London, 1914, pp. 128—130.

[6] W. M. FLINDERS PETRIE, *The Formation of the Alphabet*, London, 1912.

[7] I am deeply indebted to Dr A. E. COWLEY for various hints and counsels.

[8] *Ephemeris für semitische Epigraphik*, vol. I (1901), pp. 110—136.

not infrequently found on those tablets. He assumes perhaps too readily that the Phoenician alphabet must from the start have belonged to the area where it is later found, but his argument at this point is not without some cogency. He is on far more dangerous ground, however, when he postulates the immutability of the Phoenician script in the centuries preceding its first disclosure to us; for this assumption his sole reason is its relative immutability during the five centuries following. There would be a very serious chronological difficulty about the derivation of the Minaeo-Sabaean alphabet from the Phoenician, if GLASER and his followers were in any way justified in their view of the great antiquity of the Minaean texts. But LIDZBARSKI is no believer in this view, and it must be admitted that any argument that is based upon it would be highly precarious. We have no proof that any Minaean texts go back even as far as 600 B.C., and it will be better to leave this factor wholly out of account. The real answer to LIDZBARSKI is given by an examination of the methods by which he derives the South-Semitic (Minaeo-Sabaean) letter-forms from the Phoenician; these methods are not unjustly described by Sir Arthur EVANS as "most violent and procrustean," and PRÄTORIUS and DUSSAUD have also criticized his *modus operandi* with not unmerited severity[1]. If anything is certain, it is that the South-Semitic group of scripts can just as little be descended from the Phoenician alphabet as this, conversely, can be descended from the South-Semitic group. They have undeniable elements in common, as a comparison of the equivalents of ג, מ, ל, נ, ע, פ, ק, ר, ש and ת will immediately show; but in the case of the other letters, such as א, ה, ח, י, ב, ס, and צ the differences are such as at first sight to appear entirely irreducible.

The Greek alphabet, as a whole, is far more closely related to the Phoenician; yet in certain points it would appear to occupy a position intermediate between this and the Sabaean. Thus Greek $\Lambda = \lambda$ and $\leftthreetimes = \sigma$ in the oldest inscriptions agree with Sabaean $\urcorner$ and $\leftthreetimes$ as against the Phoenician λ and $\sim$. DUSSAUD quotes other letters as well, but his examples are not very convincing, except perhaps as regards the so-called additional letters of the Greek alphabet, Χ, Φ and Ψ; these PRÄTORIUS[2] had previously identified with certain letters having very similar forms and values in the Ṣafâ-alphabet, a dialectal alphabet which with the Liḥyân and Thamûd alphabets, though not attested until at least the Hellenistic period, shows special affinities with the Minaeo-Sabaean script.

To a student, like myself, only superficially acquainted with the problems of the Greek alphabet, its precise relationship to the Phoenician and the South-Semitic must seem hopelessly obscure. Putting aside the question of the additional letters[3], the most plausible view would seem to be a slight modification of the old one,

[1] PRÄTORIUS, in *Zeitschrift der deutschen morgenländischen Gesellschaft* (*ZDMG*), vol. 58 (1904), pp. 715—728; vol. 63 (1909), pp. 189—198. DUSSAUD, *loc. cit.*

[2] *ZDMG*, vol. 56 (1902), pp. 676—680.

[3] This can the more easily be done, since the absence of φ, χ and ψ from the inscriptions of Thera, and their variable order in the *abecedaria*, seem to indicate that they were really additions to the original twenty-two (or twenty-three) letters of the Greek alphabet. For a recent and, so far as I am able to judge, admirable account of the special problems of the Greek alphabet, see the article *Alphabet*, by P. GILES, in the *Encyclopaedia Britannica*, eleventh edition.

namely that the Greek was derived from the Phoenician, not indeed quite in the form in which the most ancient gems and the Moabite stone display it, but in some only slightly different and earlier form. DUSSAUD's tentative conjecture that the Phoenician was derived from the Greek must be regarded as pure paradox; I cannot admit, for reasons later to be discussed, that the names of the letters were not Semitic in origin, and still less that, if Semitic, they could have been imported into Greece apart from the alphabet itself. Nor is DUSSAUD's further view, that the Minaeo-Sabaean alphabet was a derivative of the Greek, in any way more acceptable. However we may try to blink the fact, it seems clear that the Phoenician and the Greek are very closely akin, so that the same difficulties that arise over the connexion between Phoenician and South-Semitic must apply, in almost like degree, to the connexion between South-Semitic and Greek. Moreover, there are geographical and chronological[1] difficulties which render insurmountable the objections to DUSSAUD's hypothesis.

The accompanying Table[2] will illustrate the statements already made concerning the forms of the letters and other statements that are to follow. In the first column is shown the later Hebrew alphabet with some Arabic additions to indicate the supplementary letters common to Minaeo-Sabaean and Arabic; in the second column are the Phoenician letters in their oldest known forms. Next we have the early Greek alphabet with its phonetic values expressed in terms of the later Greek characters; and after these the alphabets of the South-Semitic group, consisting of the Sabaean, the Liḥyânite, the Thamûdenic, and the Ṣafâitic. The rest of the Table will be explained later.

A careful examination of the forms of the various letters in the different alphabets can hardly fail to win our assent to the weighty judgement, which PRÄTORIUS, in his most recent article[3], formulates thus: "Accordingly we are obliged very seriously to weigh the possibility that the South-Semitic alphabet is descended, not from the Mesha alphabet[4] or from some only slightly different and slightly older script, but rather from a much older script now unknown to us—a script which must in essentials have exhibited an alphabetic character. On this view the uniformity which the letters of the South-Semitic alphabet display among themselves, in strong contrast to the wholly different Phoenician alphabet, would find its explanation in the fact that the South-Semitic and the Phoenician alphabets were very ancient bifurcations from a script still plastic and not yet reduced to uniformity. A further inference to be

[1] If it is possible that the Greek alphabet, as such, was older than the authorities would have us believe, the same is equally true of the Minaeo-Sabaean, though we do not venture to build upon the fact. The earliest dateable Minaean inscription mentions a war between Miṣr (*i.e.* Egypt) and the Madai (*i.e.* Μῆδοι, Persians), which can only be the invasion of Egypt by Cambyses in 525 B.C.; see HALL, *The Ancient History of the Near East*, p. 564, n. 3. But there is no particular reason for supposing that this is the most ancient South-Semitic inscription that we actually possess, and at all events a very considerable space of time must be allowed for the Minaeo-Sabaean signs to have acquired that symmetrical and architectonic appearance for which they are peculiar.

[2] Authorities: for the Phoenician, LIDZBARSKI's Table in GESENIUS-KAUTZSCH, 28th edit.; for the Greek, E. S. ROBERTS, *Introduction to Greek Epigraphy*, vol. I, pp. 4—22; for the South-Semitic alphabets, LIDZBARSKI, *Ephemeris für semitische Epigraphik*, vol. 2 (1908), p. 361.

[3] *ZDMG*, vol. 63 (1909), p. 191.

[4] *I.e.*, the alphabet of the Moabite stone, which relates to the king Mesha named in 2 *Kings*, iii, 4, 5.

COMPARATIVE TABLE OF ALPHABET

The signs and words underlined in red are those to which special comparative value is attached.
A small cross × attached to a sign signifies that it is taken from an inscription which reads from
the case of the Sinai new script, where it indicates an inscription where the signs face consistently to

Hebrew or Arabic equivalent	Moabite stone and early seals	Early Greek (reduced to type)	Early value of Greek letters	South-Semitic: Sabaean	South-Semitic: Liḥyân	South-Semitic: Thamûd	South-Semitic: Ṣafâ	Sinai new script	Meaning of letter-name in Semitic
א		1. Α	*a*					1. 349, cf. 350, 352 × 345	ox
ב		2. Β	*β*					2. 345, cf. 348, 349, 351, 352, 353, 354 × 353, cf. 352 × 345 × 346, cf. 355 ?	house
ג		3. Γ	*γ*						camel (?
ד		4. Δ	*δ*						door
		26. Ψ *	*East* ψ / *West* χ						
ה		5. Ε	*ε* (*η*, *ει*)						
ו		6. Ϝ 23. Υ 24. *East* / 25. *West* Φ ‡	(*υ*) *υ* *φ*					3. 345	hook, na
ז		7. Ι	*ζ*					4. 351 = 349, cf. 346	A olive (?) B weapon
ח		8. Η	', also *η*						
ט		25. *East* / 24. *West* × §	*East* χ / *West* ξ						
י		9. ⊗	*θ*						
כ		10. Ϟ	*ι*					5. 349	hand
ל		11. Ϟ	*κ*					6. × 353 ? cf. 345	bent han
מ		12. Γ	*λ*					7. 345, cf. 346 352, cf. 348 × 353 354	ox-goad (?
נ		13. Μ	*μ*					8. 346, cf. 349, 351, 352, 353, 354 × 345	water
ס		14. Ϟ	*ν*					9. A 346 352 10. B 349, cf. 346, 350, 351, 352 × 347, cf 346	A fish B snake
ע		15. ⋕ × ⊞ ‖	*East* ξ / *West* …						prop (?
פ		16. Ο	*o* (*ω*, *ου*)					11. 352 × 353 354 345 × 346 346	eye
צ									
ק		17. Ρ	*π*					12. 346 346	mouth
ר		18. × Μ × Ϟ ¶	?						
ש									
ת		19. Ρ Φ	…						
		20. Ϙ	*ρ*					13. 349, cf. 346 (phot.) 349	head
		21. Ϟ	*σ*					14. 351, cf. 348, 349, 350, 352, 353	tooth
		22. Τ	*τ*					15. 345, cf. 346, 347, 348, 349, 350, 351, 352, 353, 354	mark

* Prätorius = Safā Ϟ. † Clermont-Ganneau = Phoen. Ϟ. ‡ Prätorius = Safā Φ.

‖ Abecedaria of Formello, Cære and Corneto. ¶ Abecedaria of Corneto and Cære respectively. ** There a

MPARATIVE TABLE OF ALPHABETS

ned in red are those to which special comparative value is attached.
a sign signifies that it is taken from an inscription which reads from left to right, except in where it indicates an inscription where the signs face consistently towards the right.

tic amûd	tic Ṣafâ	Sinai new script	Meaning of letter-name in Semitic	Greek name of letter	Hebrew name of letter	Ethiopic name of letter **	Original name as constructed by Nöldeke	Egyptian hieroglyph compared
		1. 349, cf. 350, 352 345	ox	ἄλφα	αλφ, αλεφ	*alf*	'alf	
		2. 345, cf. 348, 349, 351, 352, 353, 354 353, cf. 352 345 346, cf. 355 ?	house	βῆτα	βηθ	*bēt*	bēt	
			camel (?)	γάμμα	γιμλ, γιμελ	*gaml*	gaml (geml)	
			door	δέλτα	δελθ, δελτ	*dant*	delt	
				εἶ	η	*hōi*	hē	
		3. 345	hook, nail	*lat.* vau	ογαυ	*wāwī*	wau	
		4. 351 = 349, cf. 346	A olive (?) B weapon (?)	A ζῆτα	B ζαι, ζαιν	B *zāi*	B zai (zain?)	
				ἦτα	ηθ	*ḥāut*	ḥēt	
						ḫarm		
				θῆτα	τηθ	*ṭāit*	ṭēt	
		5. 349	hand	ἰῶτα	ιωδ, ιωθ	*yaman*	yōd	
		6. 353 ? cf. 345	bent hand	κάππα	χαφ	*kāf*	kaf	
		7. 345, cf. 346 352, cf. 348 353 354	ox-goad (?)	λάμβδα	λαμεδ, λαβδ	*lāwī*	lamd	
		8. 346, cf. 349, 351, 352, 353, 354 345	water	μῦ	μημ	*māi*	mēm	
		9. A 346 352 10. B 349, cf. 346, 350, 351, 352 347, cf 346	A fish B snake	A νῦ	A νυυν, νουμ	B *nahās*	A nūn B *Hebr.* nāḥāsh	A B
			prop (?)	σίγμα	σαμχ, σαμεχ	*sāt*	semk (samk)	
		11. 352 353 354 345 346 346	eye	οὖ	αιν	*'āin*	'ain	
		12. 346 346	mouth	πεῖ	φη	*af*	pē	
				…	σαδη	*ṣadāi*	ṣādē	
						ḍappa		
				κόππα	κωφ	*qāf*	qof	
		13. 349, cf. 346 (phot.) 349	head	ῥῶ	ρης	*re'es*	rōsh (rēsh)	
		14. 351, cf. 348, 349, 350, 352, 353	tooth	σάν	σεν	*shāut*	shin	
		15. 345, cf. 346, 347, 348, 349, 350, 351, 352, 353, 354	mark	ταῦ	θαυ	*tāwī*	tau	

-Ganneau = Phoen. Y. ‡ Prätorius = Safâ Φ. § Prätorius = Safâ X.

edaria of Formello and Caere respectively. ** There are two additional letters bearing the names *pāit* and *psa*.

right, except in
he right.

k name letter	Hebrew name of letter	Ethiopic name of letter **	Original name as constructed by Nöldeke	Egyptian hieroglyph compared
λφα	αλφ, αλεφ	*alf*	'alf	
ῆτα	βηθ	*bēt*	bēt	
μμα	γιμλ, γιμελ	*gaml*	gaml (geml)	
λτα	δελθ, δελτ	*dant*	delt	
εῖ	η	*hōi*	hē	
vau	ογαυ	*wāwī*	wau	
ῆτα	[B] ζαι, ζαιν	[B] *zāi*	[B] zai (zain?)	
τα	ηθ	*ḥāut*	ḥēt	
		ḫarm		
ῦτα	τηθ	*ṭāit*	ṭēt	
ῦτα	ιωδ, ιωθ	*yaman*	yōd	
πα	χαφ	*kāf*	kaf	
βδα	λαμεδ, λαβδ	*lāwī*	lamd	
ῦ	μημ	*māi*	mēm	
νῦ	[A] νυυν, νουμ	[B] *nahās*	[A] nūn [B] *Hebr.* nāḥāsh	[A] [B]
γμα	σαμχ, σαμεχ	*sāt*	semk (samk)	
ῦ	αιν	*'āin*	'ain	
φεῖ	φη	*af*	pē	
..	σαδη	*ṣadāi*	ṣādē	
		ḍappa		
πα	κωφ	*qāf*	qof	
ῶ	ρης	*re'es*	rōsh (rēsh)	
άν	σεν	*shāut*	shin	
αῦ	θαυ	*tāwī*	tau	

§ Prätorius = Safā ⨯.

additional letters bearing the names *pan* and *pai*.

Signs in the New Script for which no Alphabetic Value has been suggested

16. 348. 354, cf. 350, 353. 345. Compare the Egyptian hieroglyph
17. 346, cf. 352 and 353 (?). Compare the Egyptian hieroglyph
18. 349, cf. 352. Compare the Egyptian hieroglyph
19. 352.
20. 352.
21. 349, cf. 353, 355. Compare the Egyptian hieroglyph
22. 355.
23. 345. Compare the Egyptian hieroglyph
24. 351, cf. 349. Compare the Egyptian hieroglyph
25. 351. Perhaps identical with no. 24. Compare the Egyptian hieroglyph
26. 351. Compare the Egyptian hieroglyph
27. 353 (distinct from no. 14), cf. 348.
28. 349.
29. 349. Possibly identical with no. 11.
30. 350. Possibly identical with no. 2.
31. 345. Compare no. 1. Or else is no. 11 badly made.
32. 350.

N.B. A few signs of very doubtful authenticity might be added. In particular the copy of the inscription numbered 353 contains a series of characters which are not confirmed by the photograph. The extremely worn condition of the monuments must be carefully borne in mind.

drawn would be this, that very possibly the intermediate stages between the Mesha-alphabet and the South-Semitic may now have completely disappeared."

PRÄTORIUS himself, in his detailed analysis of letters and his comparisons with the Cypriote syllabary, would appear not to have realized the full consequences of his own reasoned opinion. It practically means this, that where the forms of the North-Semitic and the South-Semitic letters differ, we can have no conception whatsoever, *judging on the evidence of the forms alone*, as to the real appearance of the corresponding proto-Semitic letters. Even where the forms in all the alphabets agree, or are in substantial agreement (as appears to be the case with ג, ט, ל, נ, ע, ק, ר, ש and ת and rather less so with ד, מ and פ), there is still a double chance that the attested forms may differ widely from the proto-Semitic forms: there may have been independent but parallel development in the separate branches, or the shapes of the original alphabetic signs may have been seriously modified and linearized even before any bifurcation took place. On the other hand it is clearly possible that an isolated form, like Phoenician 𐤀 for instance, has retained much of its primitive semblance. My contention is, that though such little-modified forms may exist, a study of the forms alone cannot possibly teach us which of them are entitled to be considered as such.

In the following paragraphs I shall advocate a much greater importance for the traditional *names of the letters*, which are almost identical for the Phoenician and the Greek (see the Table), and are still for the most part recognizable in the Ethiopic (an offshoot of the Minaeo-Sabaean). The meanings of these names, translated as Semitic words, are plain or plausible in seventeen cases[1]: *'alf* means an ox, *bēt* a house, *gaml* a camel(?), *delt* a door, *wau* a hook or nail, *zain* a weapon(?), *yōd* a hand, *kaf* a bent hand, *lamd* an ox-goad(?), *mēm* water, *nūn* a fish, *semk* a prop(?), *'ain* an eye, *pē* a mouth, *rōsh* a head, *shin* a tooth, and *tau* a sign or mark. The sense of the names *hē*, *ḥēt*, *ṭēt*, *ṣādē* and *qof* is, on the contrary, either unknown or in the highest degree problematical. The pronunciation of the names here adopted is the hypothetical pronunciation deduced by NÖLDEKE from the traditional forms in Greek, Hebrew, Ethiopic and Syriac[2]. NÖLDEKE concludes, though not without hesitation, that the names indicate Phoenicia as their place of origin; the final *-a* of many of the Greek forms, which has been thought by some to suggest rather an Aramaic home, is explained by him as due to the desire to avoid ending the name with a mute. With regard to date, the names of the Greek letters rest on authority as old as the fifth and fourth centuries B.C.; the Septuagint and Eusebius are our oldest evidence for the names of the Hebrew letters—these too of course in Greek garb. The Ethiopic names rest on far later testimony. The tradition is thus at all events of a respectable age; making due allowance for the differences between the Greek and Hebrew names, and for the transference from one country to another, we cannot possibly date them later than 700 B.C.

The question is whether they are not far earlier, whether indeed they are not coëval with the proto-Semitic letters themselves, of the original forms of which they

[1] See J. P. PETERS, *Recent Theories of the Origin of the Alphabet* in *Journal of the American Oriental Society*, vol. 22 (1901), pp. 177—198. Dr PETERS takes exception to the four meanings that I have marked with a query; on *lamd*, see below, p. 9.

[2] *Beiträge zur semitischen Sprachwissenschaft*, Strassburg, 1904, pp. 124—136.

would then, so far as they are intelligible, give both a description and the explanation. The majority of scholars have long held that these names point to the pictorial character of the proto-Semitic letters, though the full importance of this view has often been neglected in the discussions with regard to the forms of the letters. The supposition is, that *'alf* being the Semitic word for ox, an ox's head was depicted to indicate the soft breathing ' with which this word begins; similarly *bēt* being the word for house, the miniature picture of a house supplied the letter *b*. The principle underlying this method of creating alphabetic letters is known as the principle of *acrophony*; and though it is not, as usually asserted, the principle that lies at the base of the Egyptian hieroglyphic system, it is none the less one that is natural and probable in itself. At all events any hypothesis that makes of the proto-Semitic script a variety of pictographic writing has all the anthropological probability on its side[1].

This probability is greatly enhanced when we note, as has often been done, that the forms of certain early Semitic letters are roughly in agreement with the shapes indicated by the names. Alike in Phoenician, Greek and South-Semitic the signs for *'ain* and *tau* are very fair representations of respectively an eye and that simplest kind of "mark," a cross; *mēm*, also, vividly recalls the zigzag  which in Egyptian hieroglyphic and elsewhere is the primitive symbol for water. In Phoenician and Greek, though not in South-Semitic, the signs for *'alf* and *wau* may easily be construed as rough depictions of an ox's head and of a hook or nail. In South-Semitic, but not elsewhere, the sign for *bēt* somewhat resembles the ground-plan of a house, and that for *pē* the contour of a mouth. In Phoenician the letter corresponding to the name *kaf* may with a little imagination be interpreted as a hand. There are other comparisons, too, of a more hazardous kind, the Phoenician *shin* as a couple of pointed teeth, the Sabaean form of *delt*  which resembles the common Egyptian ideogram for door  , and so forth.

Our sceptical conclusion with regard to the forms of the letters, as handed down to us, must not be forgotten at this point; it warns us that some of the resemblances we have detected may easily be the result of coincidence. This is of course the more likely where the compared letter-form rests on the testimony of only one or two of the three principal witnesses, as is the case with the Sabaean *bēt*  , the Phoenician *kaf*  , or the Graeco-Phoenician *wau*  . But if some of the resemblances be accidental, all cannot be; the instances of *'ain*, *tau* and *mēm* are individually striking, collectively and in conjunction with the less obvious comparisons they carry

[1] It would lead me too far afield here to examine at length Professor PETRIE's views in his book *The Formation of the Alphabet*, where he omits all reference to the new Sinaitic script. The main objections, however, may be summarized as follows:—(1) The Egyptian potters' marks always occur singly and there is not the slightest evidence for their ever having acquired a phonetic value, similar potters' marks persisting right down to Roman times as something quite distinct from writing proper; (2) it is not sufficient to explain the acquisition of phonetic value by saying that it is due to some "great wrench of thought" (p. 4), but the process must be traced in detail, as I have attempted to do in this article and in a previous paper on Egyptian hieroglyphs; (3) the potters' marks are of so many varieties and of so linear a character that it is easy to pick out comparisons with almost any given true alphabetic letter, but in the lack of further evidence of a different kind such comparisons must be considered wholly arbitrary.

formidable cumulative weight. The likeness of 𐤀 to an ox's head has always appealed strongly to me personally, though Sabaean has a different form. Much latitude must, however, be left for individual differences of opinion in a delicate question of this kind.

When once the similarity between certain of the letters and the objects denoted by their names has been admitted to be due to design, an important basis will have been found for new and far-reaching conclusions. Not only shall we have at our command a test for distinguishing forms that are ancient from forms that are not, *e.g.* Sabaean 𐩦 for *pē* "mouth" as against Phoenician 𐤐, but also we shall soon be found asking ourselves whether the names of the letters are not far better evidence for the proto-Semitic forms than the surviving letter-forms themselves. Let us try to reason this matter out. Either the names of the letters are primary, in which case they are all-important, or else they are secondary. Admit that they are primary, and it is perfectly easy to understand why, in the alphabets before us, some of the forms of the letters more resemble the objects denoted by their names than others; it is because Time has dealt unequally with these letters, simplifying some of them out of all recognition and preserving in others a rough likeness to their primitive shape. Suppose, on the contrary, that the names of the letters were invented in Phoenicia somewhere about the year 700 B.C.; on this supposition we shall find it impossible to discern any principle upon which the names could have been chosen, and we shall be brought face to face with insoluble difficulties.

The resemblance between 𐤀 and the head of an ox (*'alf*) being admitted to be intentional, why did not the inventors find a more appropriate name than *bēt* for 𐤁, the similarity of which to a house is of the very smallest? So strongly has LIDZBARSKI felt this difficulty, that he has been beguiled into a wholly unwarrantable treatment of the subject[1]. He starts of course with the assumption that the alphabet to which the names have to correspond was the Phoenician alphabet. The Phoenician letter 𐤃 in no wise evoking the image of a door (*delt*), *delt* therefore cannot be the name of the object which acrophonically gave rise to 𐤃; this, he argues, must have been *dad* "the female breast," to which the shape of the sign 𐤃 shows a certain similitude. In like manner LIDZBARSKI would substitute *qesheth* "bow" for *qof* and *garzēn* "axe" for *gaml*; and so forth. But what manner of criticism is this which simply discards the names of the letters that it finds unsuitable? It cannot be denied that 𐤃 was called *delt*, nor that 𐤒 was called *qof*, nor that 𐤂 was called *gaml*. Whether these names please us or not, they are our *data* and we have to accept them, or at least to account for them in some way or other.

Now *bēt* and *delt* are common and intelligible Semitic words, and denote objects just as suitable for becoming letters as *'alf* "an ox." There is nothing in their form or appearance which would suggest that they are corrupt, nor is there any likelihood that such is the case. In these and in most other cases the Greek and Hebrew testimony is in sufficient agreement, and their common source must date back at all events to the time when these names, on the hypothesis that they are secondary, were given. But if the names *bēt* and *delt* are not corrupt, then they could only be accounted for by supposing that the hypothetical Phoenician inventors,

[1] *Ephemeris für semitische Epigraphik*, vol. I (1901), pp. 132—133; vol. II (1908), pp. 127—139.

despairing of finding names for certain letters at once beginning with the right sound and suggesting the right shape, were content to forgo the latter requirement, simply using any common word with the suitable initial consonant as the name for that consonant. If this line of argument were adopted it could be easily met. In the first place LIDZBARSKI'S own suggestions *garzēn*, *dad*, *qesheth* and the rest testify to an ingenuity in the modern scholar which we must not refuse to the Phoenician inventors; and in the second place there are a number of letter-names (*hē*, *ḥēt*, *ṭēt*, *ṣādē* and *qof*) which are very far from satisfying either requirement, being wholly obscure and presenting the greatest difficulty to philologists. How these names could be accounted for on the hypothesis that the names of the letters are secondary I am unable to guess.

There is, however, a possibility that some of the names may be primary and others secondary; as a matter of fact this is more than a possibility, for there are certain variations in the different traditions, and where these occur, one must necessarily be older than the other. Thus whereas the Graeco-Phoenician name for *n* is *nūn* (*νῦ*, *νουν*) "fish," the Ethiopic name is *nahās*, which in Hebrew would mean "a serpent." The simplest way of explaining these alternatives is to suppose that at a given moment the sign for *n* no longer resembled a fish, but presented some likeness to a serpent, as indeed is actually the case with the surviving form of *n* in most of the alphabets. Some such explanation might also apply to Greek *zēta* against Hebrew *zain*, if the former, as Dr COWLEY thinks, means "an olive" and is not a mere meaningless sound due to the analogy of *bēta*, *hēta*, *thēta*. It is important to note that in these cases the acrophonic principle is accepted as lying at the base of the choice of the names, whether primary or secondary; our faith in individual intelligible names is somewhat shaken, but the principle remains. With regard to the unintelligible names, we seem almost as far as ever from comprehending their origin; *ḥēt* and *ṭēt* might conceivably be copied from *bēt*, but *hē*, *ṣādē* and *qof* are still unexplained.

The view has recently been advanced that the five unintelligible names alone are original and that the seventeen other names are due either to popular etymology or to translation. This view must be carefully examined; in the three forms in which it presents itself, it is part and parcel of an attempt to prove that the Semitic alphabet is of Aegean origin. DUSSAUD, who derives the Phoenician alphabet from the Greek, quotes[1] as an example of how unintelligible names sometimes acquired intelligibility the Slavonic name *dobro* "oak" for *d*, the rejected name *delta* having no meaning in Greek; and he would have us draw the inference that all the intelligible Phoenician names may have come about in some similar way, as adaptations from originals in some unknown Aegean speech[2]. MACALISTER argues along much the same lines, and I select his less ambiguously worded contention for criticism. "It is commonly assumed," he writes[3], "that because the names of the letters have a meaning

[1] *Op. cit.*, p. 88.

[2] DUSSAUD does not appear to be quite satisfied with his own argument, for he goes on to advance an alternative view: if the names of the letters should prove to be really Semitic in origin, then, he urges, they must clearly have been imported into Greece at a later date.

[3] *Op. cit.*, pp. 129—130.

in Semitic, and no meaning in Greek, therefore they are Semitic words adapted into Greek. This is, however, a *non sequitur*. It would be more probable that the *borrowing* nation should cast about for words similar in sound, and possessing a meaning which would make the names of the letters easily remembered. Such an attempt would be sure to be unsuccessful in some cases: and in point of fact there are several letter-names in the Semitic alphabet to which the tortures of the Inquisition have to be applied before a meaning can be extracted from them through Semitic. It may thus be that 'all the letter-names are a heritage from some pre-Hellenic, non-Semitic language....." It would be difficult to find a better example of the fallacious kind of argument which the scholastic logicians termed *ignotum per ignotius*: because a few of the Semitic letter-names are unintelligible through Semitic, therefore the whole Greek alphabet, it is conjectured, finds its true interpretation in some hypothetical pre-Hellenic language! Nor is it easy to believe that the Phoenicians, having succeeded in converting seventeen of the Greek names into sufficiently good Semitic words, would have allowed themselves to be baffled by the remaining five; the theory admits that they were ready to be contented with the *à peu près*, since DUSSAUD, for his own purposes, lays some emphasis upon the form *lamed*, which was adopted for the letter ל, though "ox-goad," in Phoenician, was not *lamed* but *malmad* or *malmed*[1]. Sir Arthur EVANS, who acknowledges that the still intelligible Semitic letter-names refer to intentional likenesses between the objects they denote and the corresponding letter-forms, thinks that they are translations of the Aegean names, while the names that have no meaning in Phoenician are regarded by him as the original Aegean names left untranslated[2]. But, if such a very conscious act as that of translation is assumed, why were the names unintelligible in Phoenician not translated together with the rest?

The truth is not always simple, and the example of the alternative names of *n* and *z* suffices to show that the details in the present problem are undoubtedly complex. Nevertheless, as regards the letter-names *as a whole*, the only course that looks promising is the obvious and straightforward one of accepting their Semitic appearance at its face value, in which case they represent the original Semitic words that determined both the forms and the sounds of the proto-Semitic characters. And as on this view a single principle underlies the entire alphabet, so too a single reason, namely the antiquity of the proto-Semitic alphabet, accounts for those visible or latent deviations from the original scheme which existed in later times. The acrophonic principle at once explains certain attested forms of א, ב, ד, ו, כ, ל, מ, נ, ע, פ, ש and ת, and the principle is not disproved by the fact that a few of the resemblances may be fortuitous, or by the fact that a few of the names may have been varied so as to accord better with the later shapes of the signs to which they belong. Until new evidence demands a different view, we are obliged to explain the lack of agreement between form and name in the case of *gaml*, *zain*, *yōd*, *semk* and *rōsh* as due to the natural deterioration of the forms, almost inevitable in the long lapse of time[3]. As to

[1] DUSSAUD, *op. cit.*, p. 87.

[2] EVANS, *op. cit.*, vol. I, p. 94.

[3] So far as *rōsh* is concerned the mode of degradation in the Phoenician form will become very apparent when the head-sign of the new Sinaitic script (see below) is examined; the line of the back of the head has been lengthened and straightened, and the face has become a small triangle at its upper end.

the unintelligible names *hē, ḥēt, ṭēt, ṣādē* and *qof*, the meaning of these being unknown, it is impossible to tell whether or not the forms of the signs correspond in any way. It is the business of the philologist to account for these five names, the obscurity of which may be due to corruption, to false analogy, to their having become obsolete or to a variety of other causes. But if the philologist fails to enlighten us concerning them, we ought not therefore to throw overboard the conclusions acquired by our investigation of a large majority of the names; we ought rather to infer that the recalcitrant names, in the light of better evidence, would be seen to conform to the same general principle as the rest, and we ought to regard them as the residuum of unexplained fact that is seldom absent from any good theory.

I have hitherto made but little reference to the letter-names in Ethiopic; but they too form a powerful argument in favour of the thesis here upheld. In the Table I have quoted the Ethiopic forms from DILLMANN-BEZOLD, *Grammatik der äthiopischen Sprache*, 1899. The names corresponding to א, ב, ג, ד, ה, ו, ז, ח, ט, כ, ע, צ, ק and ת show a close, or fairly close, similarity to their Graeco-Hebraic equivalents; the names for מ, פ and ר have been altered into the Ethiopic forms of these words, with the curious result in the case of פ that the name (*af*) now no longer begins with the required alphabetic sound; *lāwī* is clearly assimilated to *wāwī* and *tāwī*, and *shāut* to *ḥāut*. The additional letters may be disregarded, so that there remain but *yaman* and *nahāṣ* to be discussed: the former means "right hand" and is an approximate synonym substituted for *yōd*; the latter has been compared with Hebrew נָחָשׁ *nāḥāsh* "snake," a comparison of which NÖLDEKE seems to approve, though he points out that the Ethiopic ought then to have *ḥ* instead of the weaker *h*. NÖLDEKE attaches great weight to the fact that the triliteral names in Ethiopic (*alf, gaml* and *dant*) are monosyllabic, thus agreeing with the Greek as against the later Hebrew forms; from this and from other considerations he makes the important deduction that the Ethiopic letter-names were taken over from the Sabaeans, which amounts to an admission that the names are as old as the common parent of the Greek, Phoenician and South-Semitic alphabets.

An additional argument for the high antiquity of the letter-names is to be found in the vocalic values attached by the Greeks to the Phoenician letters *'alf, hē, ḥēth* and *'ain*. It is natural that *yōd* and *wau* should have given rise to the Greek values *ι* and *υ*, since these are phonetically related to the Phoenician consonantal values; but the only explanation which I have discovered for the transformation of Phoenician ' into Greek *α*, of Phoenician *h* into *ε*(*η*), of Phoenician *ḥ* into *η* (so already at Thera beside the value of *spiritus asper*), and of Phoenician ' into *ο*(*ω*) is in a casual remark made by PRÄTORIUS in his essay on the origin of the Canaanite alphabet. He there points out that the *α*-sound attributed in Greek to the Phoenician letter 𐤀 may be due to the vocalization *'alf* of the name of that letter. The same observation applies to the other three letters as well: the Greeks had no use for the gutturals א, ה and ע, and but little use for the guttural ח; if they took over the letter-name at the same time as they took over the actual letters, is it not natural that they should have ignored, or possibly have failed to hear, the initial guttural in these, and that they should have adopted the following vowel as the letter-value? Thus on the acrophonic principle itself א = (')*alf* would yield *α*, ה = (*h*)*ē* would yield *ε* or *η*, and ח = (*ḥ*)*ēt*

would yield *ē*. The value *o* or *ω* for ע = (')*ain* seems at first to contradict this view but when we remember that emphatic sounds tend to give to *ă* the colouring of *ŏ*[1] it will be seen to be quite plausible that *'ain* may have sounded to the Greeks like *οιν*, and may consequently have produced the letter-value *o*. The conclusion, therefore, which I would draw from the vocalic values of א, ה, ח and ע in Greek is that the letter-names were already in use when those values were determined.

Thus the advanced view of the proto-Semitic alphabet formulated by PRÄTORIUS leads us back directly to the conservative view of the letter-names formerly advocated by LENORMANT and still accepted with but few reserves by KAUTZSCH[2]. We may now proceed to the discussion of the problem enounced at the beginning of this paper: it being unthinkable that the alphabet should have come into existence without some precursor of a more primitive type, the question arises as to the country in which the foreign model has to be sought. Since, if we may trust the argumentation of the last few paragraphs, that model must necessarily have been a pictorial or hieroglyphic script, the Cyprian syllabary and similar sources may be ruled out of court at once. The Babylonian cuneiform is an equally impossible source, having lost all but the memory of its pictographic origin long before 2000 B.C. There remain the Minoan scripts, the Phaestos disk, the Hittite writing and the Egyptian hieroglyphs. Of the first two I will say little more than that Sir Arthur EVANS' tables of comparisons are described by Prof. Stewart MACALISTER as "not very satisfactory," and had the equivalences with the signs of the Phaestos disk been more convincing, they would hardly have escaped the notice of so acute and ingenious a scholar as Sir Arthur EVANS. It is, however, needful to add that the development of the Cretan linear out of the Cretan pictographs must, at all events, provide an important analogy for the development of Phoenician, Greek and Sabaean out of the assumed pictorial proto-Semitic script[3].

The Hittite hieroglyphs lacking a champion[4], we are thrown back on the old theory which ascribes to the Semitic alphabet an Egyptian origin. The obvious objection to LENORMANT's list of comparisons is that the Egyptian hieroglyphs presented too wide a field to choose from; within that field it would be easy to find resemblances, and those resemblances might accordingly be accidental. If LENORMANT's argument is thus not cogent, yet the instinct which prompted it was none the less a sound one; there are several almost decisive reasons which indicate Egypt as the school where the Semites learnt to write. (1) First of all, its geographical position with Syria to the north-east and Arabia to the east and south-east is more favourable than that of any other country. (2) In the second place it is now clear that a longer time than was formerly imagined must be allowed for the divergence of the Phoenician, Greek

[1] BROCKELMANN, *Grundriss der vergl. Grammatik der semit. Sprachen*, I § 74, d, β, γ, quotes such examples as Maltese *ghoxrin* = Arab. *'ashrīn* "twenty."

[2] GESENIUS-KAUTZSCH, *op. cit.*, p. 28, § 5*e*.

[3] If the argument of this paper be sound, and if, as Sir Arthur EVANS is inclined to believe, the Cretan pictographs were influenced by the Egyptian hieroglyphs, the relationship of the Semitic alphabets to the Cretan script will have been, not the relationship of children to a parent, but that of cousins to one another.

[4] At the last moment I see from F. LARFELD, *Handbuch der griechischen Epigraphik*, vol. I, p. 336, that Eduard MEYER was (in 1893) inclined to favour this possibility, though admitting that the principle of a purely consonantal alphabet must have been derived from the Egyptian hieroglyphs.

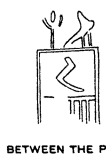
and Sabaean characters from their common prototypes. The reduction of the signs to linear forms and certain small modifications might indeed have been rapidly effected, but the spread of a system of writing to widely distant areas, in each of which it assumed a stereotyped local physiognomy, must have been a matter of centuries. At the lowest estimate we cannot place the emergence of the proto-Semitic script later than 1100 B.C. But the further back we go, the less likelihood there is of any influence in Syria or the outlying desert tracts except that of Egypt or Babylonia; and since Babylonian cuneiform cannot have been the parent of the Semitic writing, Egypt seems to present the only possibility. (3) Thirdly, the alphabetic and non-vocalic character of the writing is of great importance. The Babylonian and Mediterranean (*e.g.* Cypriote) scripts, so far as they are known, were syllabic and non-alphabetic, and the proto-Semitic script, if derived from any of them, might therefore have been expected to follow suit[1]. The Egyptian hieroglyphic system eschews vowels, and comprises a full alphabet of consonants besides its biliteral and triliteral signs. The omission of the vowels in Egyptian was undoubtedly due in part to the special nature of the language, and the Semitic languages are very similar; still, there was another important reason that was operative in the case of Egypt, namely the particular manner in which it derived its phonetic signs out of its ideographic writing[2]. (4) Fourthly and lastly there is the principle of acrophony. This is not really the principle by which the values of the Egyptian phonetic signs were fixed, but in the case of the alphabetic signs it may well have seemed to be so. Such, at least, would be a very natural way of explaining the derivation of Egyptian  *r* from *ro*' "a mouth" or of Egyptian  *p* from *poy* "a stool."

At this point we have reached the uttermost limit to which the balancing of probabilities can carry us; it has now to be seen whether the new evidence admits of further progress in the direction of certainty.

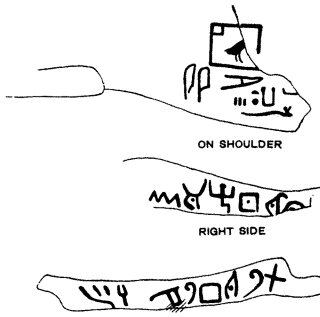
The chief meeting-places of Egyptian and Semite, prior to the rise of the Egyptian empire in Syria, were the Lebanon and the Sinaitic peninsula. No memorials of the envoys of the Pharaohs have been discovered either in the Lebanon or at its port of Byblos; but in the mining-districts of Sinai, whence the highly prized turquoise was fetched, there are abundant hieroglyphic records dating from the First down to the Twentieth Dynasty. The number of these records was largely increased by the *Egypt Exploration Fund* expedition of 1905 under Professor PETRIE, most of the new accessions coming from the site of Serâbîṭ el-Khâdim, where the Egyptians had built a temple to some local goddess whom they honoured under the name of their own goddess Hathor. Among the new monuments discovered was a series of ten, bearing inscriptions

[1] The Persian cuneiform is not a valid negative instance, since the knowledge of the Greek and Aramaic alphabets may well have influenced its formation.

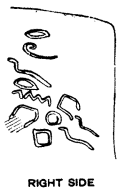
[2] In my article on *The Nature and Development of the Egyptian Hieroglyphic Writing* in *The Journal of Egyptian Archaeology*, vol. II (1915), pp. 61—75, I have tried to indicate the extent to which the development of the phonetic signs was facilitated by the disregard of the vowels.—The present paper was already in print when H. SCHÄFER'S article entitled *Die Vokallosigkeit des phönizischen Alphabets*, in *Zeitschrift für ägyptische Sprache*, vol. 52 (1915), pp. 95—98, came under my notice; Professor SCHÄFER there deals with the lack of vowels in Phoenician writing much more fully than I have been able to do here, arriving, by means of very much the same reasoning, at the identical conclusion.



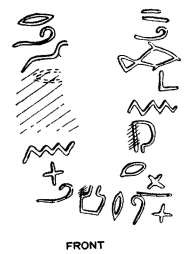
BETWEEN THE PAWS



345



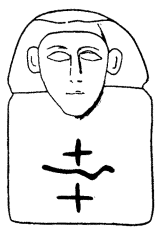
RIGHT SIDE



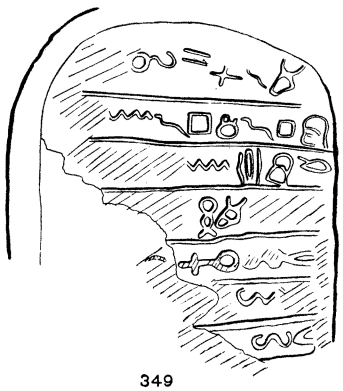
FRONT

346

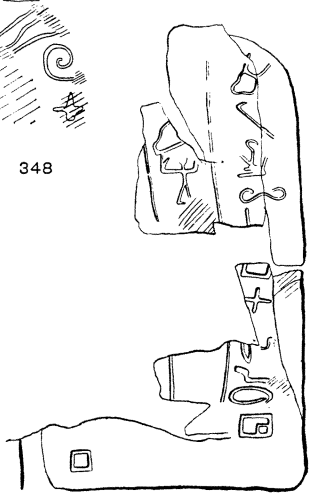
348



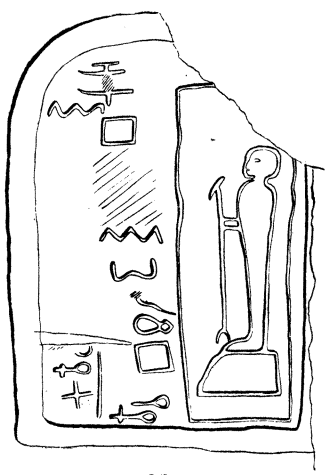
347



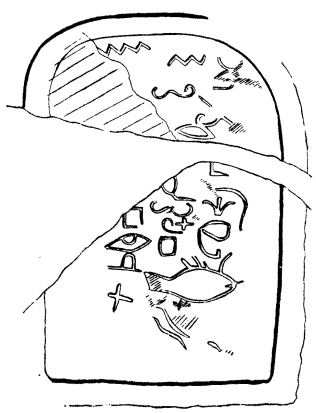
349



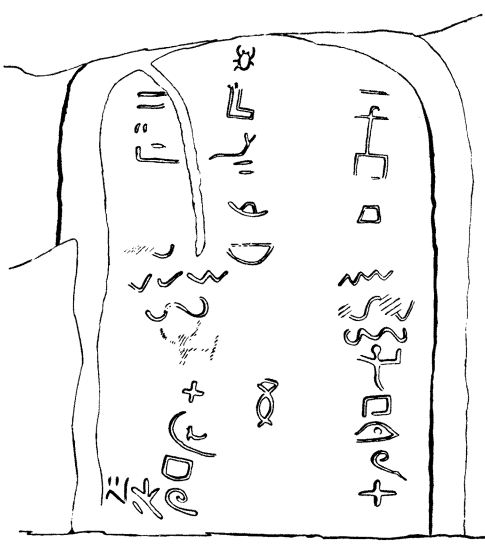
350



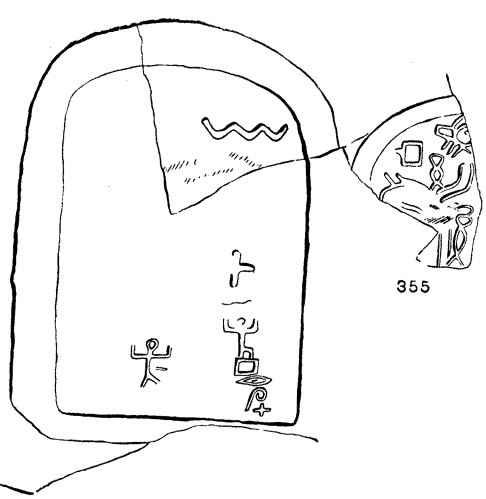
351



352



353



355

354

in an unknown script, which at first sight appeared to consist of roughly graven Egyptian hieroglyphs, but on a closer inspection revealed the presence of signs not belonging to any known Egyptian style of writing. See Plates III to V, with the Frontispiece.

A short inscription previously published from a squeeze by M. WEILL[1] brings the total up to eleven. Before proceeding further, it is desirable to pass these monuments in review, so as to obtain some idea of their nature and probable date. In the first place there are seven much battered stelae (nos. 349—355), which were carved in the rock near a mine about a mile and a half to the west of the temple; they have rounded tops like ordinary Egyptian stelae, with characters running sometimes in vertical columns, and sometimes in horizontal lines. In one case (no. 351) the right-hand portion of the field is occupied by a representation of the god Ptah in his shrine, while two lines of inscription fill the left-hand portion. In the temple were found two crudely executed squatting figures (nos. 346, 347), the one with three signs on the front and the other with an irregular text both on front and side. There is also a sphinx of small size (no. 345) with an illegible[2] Horus-name between the paws and the Egyptian words "beloved of Hathor, [lady of] the turquoise" on the shoulder; to each side of the body on the upper surface of the base are some of the unknown characters. M. WEILL's inscription (no. 348) is but a fragment.

Practically all these monuments show strong signs of Egyptian influence, though they may well be, as Professor PETRIE says, of non-Egyptian workmanship. Any suggestion to the effect that the signs are later than the rest of the monuments can be instantly dismissed. They are therefore undoubtedly all of Pharaonic date; on this point I quote Professor PETRIE[3]:—"The only indication of date that I could find at the mine, L, was a bit of buff pottery with the red and black stripe which we know to be characteristic of the time of Tahutmes III, and perhaps rather earlier, but not later. The figure, fig. 138 (*i.e.* no. 346, A.H.G.) was found at the doorway of the shrine of Sopdu, which was built by Hatshepsut. The sphinx is of a red sandstone which was used by Tahutmes III, and not at other times.....Each of these facts is not conclusive by itself, but they all agree, and we are bound to accept this writing as being of about 1500 B.C."

This conclusion may be correct, but I am by no means convinced that the end of the Twelfth Dynasty would not be a more probable date. In the volumes dealing with the results of the Expedition to be published by Mr PEET and myself we shall show that the shrine of Sopdu dates back as far as this. Beside an isolated stele[4] in the neighbouring Wâdy Naṣb, cut in the 20th year of Amenemmes III, there is added the sign of an ox's head, not unlike that found in the unknown script. In the Middle Kingdom examples at Serâbîṭ el-Khâdim Ptah is always represented in his shrine; the later style of depiction is different[5]. Lastly, it is on the hieroglyphic stelae of the reign of Amenemmes III alone that we read of Semites (Rethenu-people or 'A'amu) taking

[1] *Recueil des inscriptions égyptiennes du Sinai*, Paris, 1904, p. 154, no. 44. The squeeze is definitely marked as referring to an inscription at Maghârah.

[2] The Expedition copy shows a name which Professor PETRIE reads as that of Snofru, an early king who was later worshipped in Sinai. This interpretation is very doubtful, and the original in the British Museum is quite illegible. None the less I have reproduced Professor PETRIE's copy in Plate III.

[3] *Researches in Sinai*, London, 1906, p. 131.

[4] No. 46 of our forthcoming work.

[5] So in the reigns of Amenemmes III or IV, nos. 124, 125, 126 and 140. In the three instances dating from the New Kingdom (nos. 114, 120 and 249) the shrine is absent.

part in the Egyptian expeditions[1]. These indications, however, must be admitted not to amount to very much.

Before proceeding further one important point must be emphasized: it is to the last degree improbable that the monuments bearing the new script are the work of the indigenous Semitic nomads who have eked out a bare existence in the Sinaitic peninsula since time immemorial. There can be little or no doubt that the monuments are due to strangers from other parts who accompanied the Egyptians on their expeditions, though these strangers may not have come farther than from Palestine or from the *Hinterland* of Syria. Were the new inscriptions indigenous, they would undoubtedly have been more numerous than they are; nor should we have expected to find them in the temple or in the neighbourhood of a mine.

To turn to the inscriptions themselves: they are not in Egyptian hieroglyphic, yet many of the signs are obviously borrowed from that source. There are the human head  , the ox's head  , and the human eye  , the very signs postulated by LENORMANT as the originals of proto-Semitic *rōsh* ר, *'alf* א and *'ain* ע. There is the zigzag  , which we are sorely tempted to connect with מ *mēm* "water." There is one instance of a hand (no. 349), which might be *yōd*; the fish and snake, recalling  and  , are alternative candidates for the value נ (*nūn* or *nahās*). Finally, there are some other signs which have Egyptian analogies,  ,  and  , but which cannot as yet be identified with letters of the proto-Semitic alphabet.

The trend of my argument is now clear. Have we not, in this unknown script, something strangely like the long-sought proto-Semitic script? Looking closer, we discern signs foreign to the Egyptian hieroglyphs, but answering well to the names or forms of proto-Semitic letters. Such are  , precisely similar to Semitic  for ת *tau*, "a mark" or "cross," very common in the inscriptions, corresponding to the frequency of ת in Semitic as an inflexional element;  or  or  provides a suitable equivalent for ב *bēt* "house," Sabaean ;  may be compared with forms of ל *lamd* which run through all the different alphabets;  or  might be equated to the Semitic forms of ז *zai* or *zain*. Without having much faith in them I have added to my table of comparisons  = כ = Phoenician  ,  = פ = Sabaean  , and  = ש = Semitic  ,  .

In comparing the forms of some of the individual picture-signs with their earliest Semitic equivalents we can hardly fail to be struck with the ease with which the transition from the one to the other could be effected. The comparison may be left to the reader in the cases of the ox-head, the human head and the water-sign; but in the case of the human eye it is worth pointing out that the necessary step of the omission of the pupil has already been accomplished on the statue no. 346.

The inscriptions are too fragmentary for any very serious attempts at consecutive reading. There is, however, one sequence of four letters that recurs five, if not six times, as the following facsimiles show:—

[1] Nos. 24, 85, 87, 92, 110, 112, 115. On several of these a brother of the prince of Rethenu, by name *Ḫbdd* or *Ḫbddm*, is mentioned, and it is perhaps not fantastic to conjecture that some of the stelae were dedicated by him or by members of his staff.

No. 348

Apparently end; note that the second sign here differs considerably. The preceding signs are

No. 352

End; preceding signs lost.

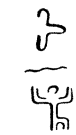
* The projecting part of this sign may be wrongly copied; the photograph suggests that it may belong to the sign of the fish immediately to the right.

No. 353

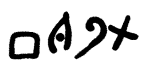
End; preceding the group are the signs

No. 354

End; preceding are the signs

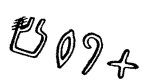


No. 345 (the sphinx)



End; preceding signs  Note the upright form of the eye.

No. 346 (the statue)



End; preceding signs  Note the eye without pupil.

It may be fairly assumed that the vertical signs read from top to bottom; and it would therefore follow that the horizontal equivalents read from left to right. [The signs representing parts of human beings or animals can however, in other inscriptions, face either way, though always consequently on the same monument; some inscriptions may therefore read from right to left.] The variation of the signs that precede seems to mark off the four letters as a single word. Now all the signs in this word have been identified with letters in the proto-Semitic alphabet, and in consequence this, when written like a Hebrew word, would read בעלת = Ba'alat = Βαάλτις. What more probable than that the word recurring in five or six different inscriptions should be the name of the local goddess, that is rarely omitted, in its Egyptian form of Hathor, from any of the hieroglyphic texts from the same site? And what more probable than that this goddess, who was known to the Egyptian visitors as Hathor, should have been called "the female Ba'al" by their Semitic colleagues[1]? It is significant that the name of Hathor is written in hieroglyphs on the sphinx, one of the sources of our supposed word Ba'alat (see above), and that the stele with the picture of Ptah is *not* one of the sources. Unfortunately, however, I have no suggestions for the reading of any other word, so that the decipherment of the name Ba'alat must remain, so far as I am concerned, an unverifiable hypothesis[2].

[1] *Cf.* Isis-Astarte-Belit on the Phoenician stele of Byblos. The goddess of Byblos was very familiar to the Egyptians under the name of Hathor.

[2] Since these words were written I have received from Dr Cowley some extremely valuable conjectures made by himself and by Professor Sayce; and I learn with the greatest pleasure that

In the eleven inscriptions some hundred and fifty signs are legible in all. From among these I have been able to find only thirty-two different types, of which several are probably duplicates. There is not much likelihood of many signs being missing, in view of the extent of our material; and that being so, the case for the alphabetic character of the unknown script is overwhelming. Of the seventeen intelligible names of the letters in the proto-Semitic alphabet, six, namely the ox, house, water, eye, head and cross, apply perfectly to signs in the new script, and there are several less convincing comparisons. Among the more greatly linearized signs, the correspondences of form suggested for ז, כ and ל are fairly satisfactory.

The ill-success that has attended most comparisons of scripts urges caution, and I am disposed therefore rather to understate than to overstate my case. It must be admitted that there are a number of signs in the new writing that bear no resemblance to any surviving Semitic shapes. This fact is so much to the bad; on the credit side of the account I may claim to have a proportion of valuable assets that has not been equalled in any previous theory put forward to account for the origin of the Semitic scripts.

Apart from Professor PETRIE's verdict that the unknown Sinaitic writing represents "one of the many alphabets which were in use in the Mediterranean lands long before the fixed alphabet selected by the Phoenicians[1]," the published opinions on it have been based solely on the three photographs printed in *Researches in Sinai*. The Rev. C. J. BALL, in seeking to explain[2] the signs on statue no. 346 as an early example of Phoenician writing, has rightly felt that a connexion of some kind with the proto-Semitic script was inevitable. E. J. PILCHER's contention[3] that these monuments are mere meaningless imitations of Egyptian stelae and statues cannot be seriously entertained; it is rejected by Professor SAYCE[4], whose own comparison with certain Upper Egyptian quarry-marks affords no help.

Thus we have to face the fact that, at all events not later than 1500 B.C., there existed in Sinai, *i.e.* on Semitic soil, a form of writing almost certainly alphabetic in character and clearly modelled on the Egyptian hieroglyphs. Exception may perhaps be taken to the detailed comparisons of signs that have here been made, but if the new Sinaitic script is not the particular script from which the Phoenician and the South-Semitic alphabets are descended I can see no alternative to regarding it as a tentative essay in that direction, which at all events constitutes a good analogy upon which the Egyptian hypothesis can be argued. The common parent of the Phoenician, the Greek and the Sabaean may have been one out of several more or less plastic local varieties of alphabet, all developing on the acrophonic principle under the influence of the Egyptian hieroglyphs. Further speculation as to details is hardly likely to prove fruitful, in the lack of more decisive evidence.

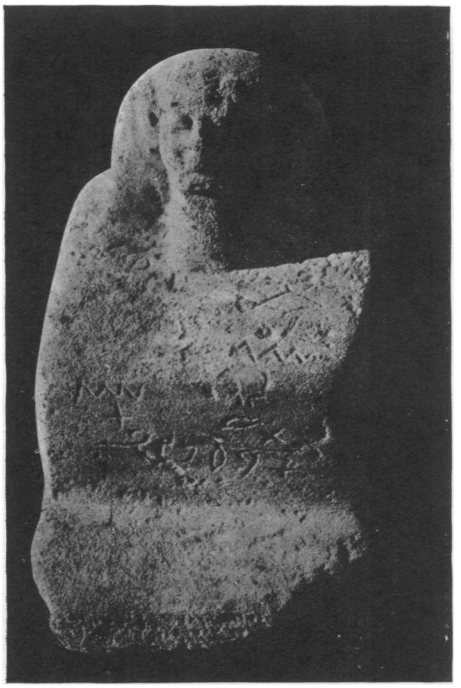
Dr COWLEY has consented to append a note upon these.—I regret to have overlooked an article by Professor SAYCE in *Proc. S.B.A.*, vol. XXXII (1910), pp. 215—222, dealing with *The Origin of the Phoenician Alphabet*, where much the same view was taken of the letter-names as that defended here.

[1] *Researches in Sinai*, p. 131.

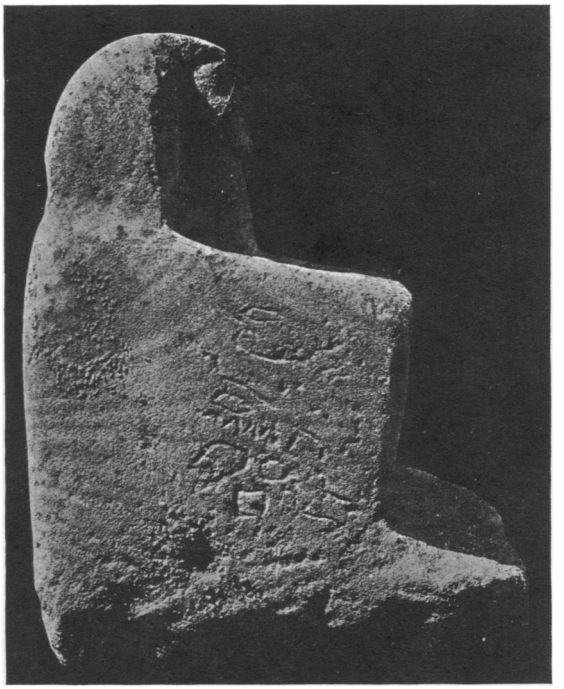
[2] C. J. BALL, *A Phoenician Inscription of* B.C. 1500, in *Proc. S.B.A.*, vol. XXX (1908), p. 243.

[3] E. J. PILCHER, *The scribings at Sinai*; *ibid.*, vol. XXXI (1909), pp. 38—41.

[4] A. H. SAYCE, *ibid.*, p. 132.

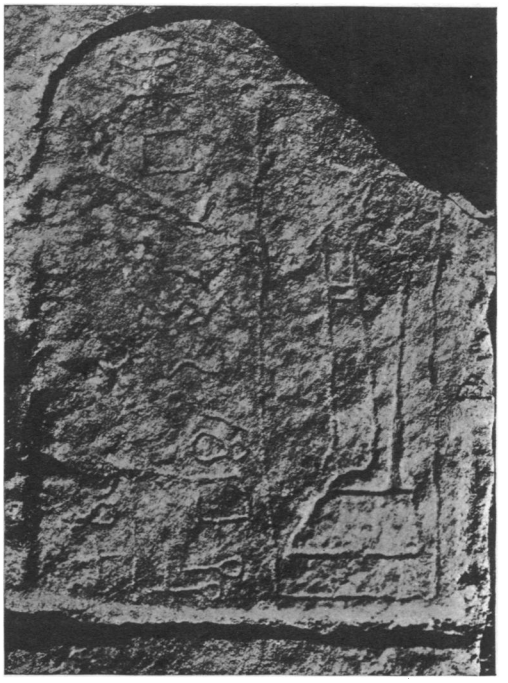


346, Front



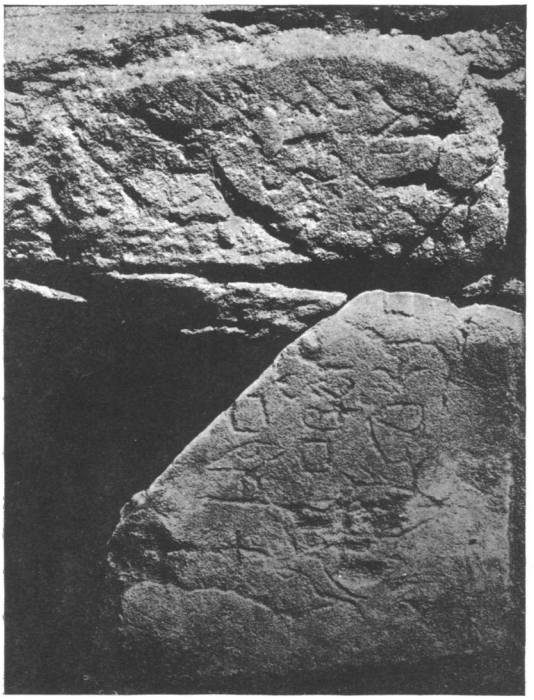
346, Right side

349

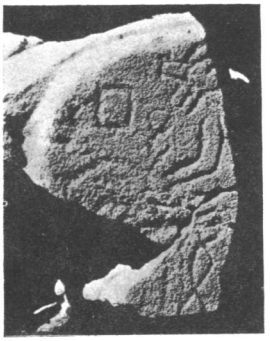


351

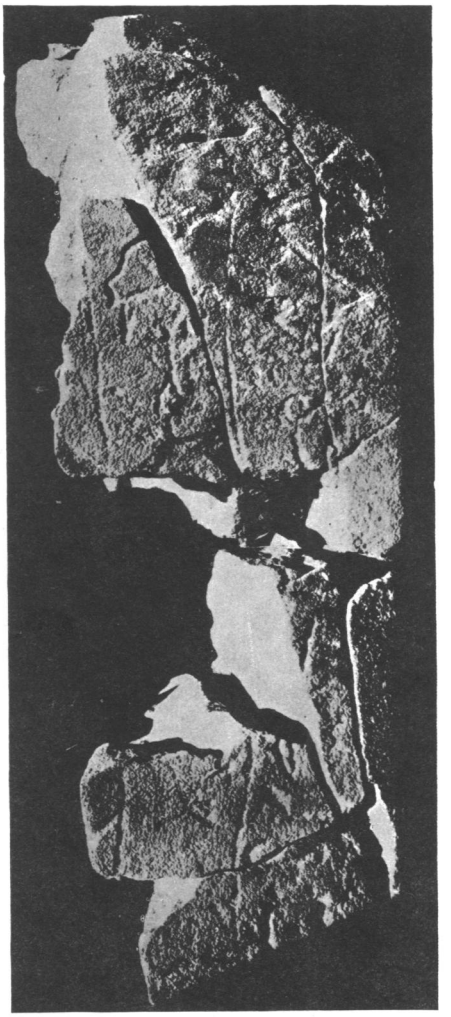
STATUE FROM TEMPLE, AND ROCK-STELAE FROM MINE



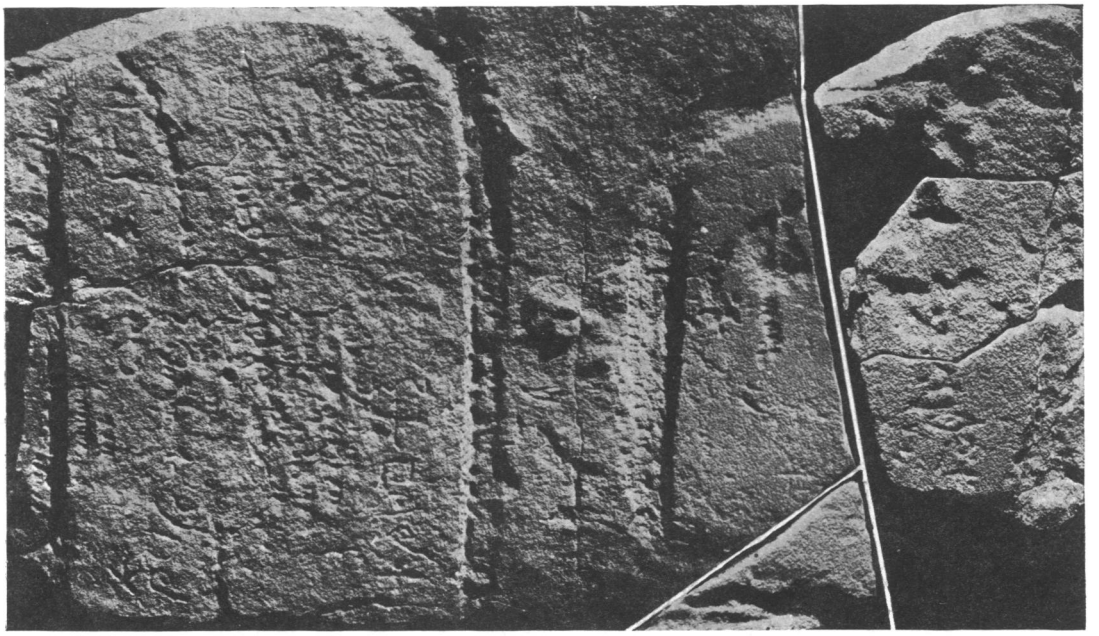
352



355



350



353 354

ROCK-STELAE

N. B. The fragments of 354, here juxtaposed, are from two different negatives; for a reconstruction of the whole, see the hand-copy in *Plate III*.