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THE ALPHABET
ITS RISE AND DEVELOPMENT FROM THE
SINAI INSCRIPTIONS

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THE ALPHABET

ITS RISE AND DEVELOPMENT FROM THE SINAI INSCRIPTIONS

By
MARTIN SPRENGLING



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TO MY MOTHER

WHOSE KEEN INSIGHT AND INDOMITABLE ENERGY
WERE AMONG THE CHIEF MOTIVE
FORCES IN THIS STUDY

FOREWORD

The credit for having started this study, whatever its merits or defects may be, must be given first of all to the writer's fine old mentor, teacher, taskmaster, colleague, and greatly valued friend, John Merlin Powis Smith. Some seven or eight weeks ago he placed in the writer's hands a copy of Hubert Grimme's *Die altsinaitischen Buchstabeninschriften* (Berlin: Reuter & Reichard, 1929), with a request for a review in the journal which he has now for many years so ably edited, the *American Journal of Semitic Languages and Literatures*. Whatever the volume of his work—and it is at present not small—and however remote from his special line of work—and this is at present far removed from ancient alphabets—a request from J. M. P. Smith is a command to the writer. So he set out to do his bidding.

Being an Arabist and student of Islamic history by trade, the writer, though interested, had up to that time fought shy of permitting himself to become engrossed in the Sinai problem. Now this could no longer be avoided. In order to be fair to Grimme, he set himself to a critical examination of all the more recent work, especially that of Butin, Cowley, and Leibovitch, to all of whom he here expresses the most heartfelt acknowledgment. To his surprise he found in Grimme's tables, eked out by the careful copies of Leibovitch, by far the best presentation of the Sinaitic source materials yet published. To his further surprise he found his critical examination, especially of the work of Leibovitch and Cowley, leading him into a simple, increasingly credible and assured solution of the whole knotty problem of these inscriptions, their reading and their significance in the history of human writing. The words of Alan H. Gardiner (Palestine Exploration Fund, *Quarterly Statement*, 1929, p. 50) as to his genial discovery of the opening chink into the mystery of Sinai, its "Ba'lat," may well be quoted here as this study's motto: "That this name presented itself unexpectedly and spontaneously seems to me good circumstantial evidence of the rightness of my theory." With all due grati-

tude to others the writer feels that in this study he rests chiefly on the shoulders of Alan H. Gardiner and Kurt Sethe.

This being, right or wrong, the writer's sincere feeling, he has thought it best to leave his study in the main precisely in the form in which it grew. The most effective presentation yet made of Gardiner's great discovery is that which immediately precedes the words just quoted, where Gardiner tells simply and briefly how he hit upon his reading. For this reason, though the following study has indeed been revised and edited from its first draft, no effort has been made to efface the signs of its uneven growth. Letting one's fellow-workmen look without restraint into one's workshop makes easier for them an unbiased judgment on the merits and defects of one's work. And younger scholars critically following a teacher's unobscured footsteps can learn thereby to avoid pitfalls and follow a straighter path or high-road. By its wide open errors as well as by its permanent contributions to incontestable knowledge, a booklet of this sort may well serve as a sort of primer in the art of epigraphic method.

In the hope that thus prefaced and presented this little study may not be wholly without value to the world of scholars and laymen and that it may not be a wholly unworthy memorial to her to whom it is dedicated, it is sent forth unvarnished into the hands of men.

MARTIN SPRENGLING

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RECENT WORK ON THE SINAI INSCRIPTIONS

Since the discovery of the Sinai inscriptions by Sir Flinders Petrie in 1904 few years have passed which did not see in print some serious work on the riddle which they placed before archeologists. Without minimizing the merits of others, it may be said that the first strokes toward their solution were drawn by the Egyptologists Gardiner¹ and Sethe.² A noteworthy contribution, which aroused widespread and intense interest, was made by the Semitist and Old Testament scholar Grimme.³ Then Lake, Blake, and Butin placed the whole matter on a new footing by making the originals accessible to a greater number of students.⁴ Hjelt of Helsingfors supplemented their work by bringing out some additional material and photographs. With still more recent work under Harvard auspices we are acquainted only through a report by Father A. Barrois.⁵

Now within a year of each other three major studies of the material thus made accessible have been made public, all independent or largely independent of one another. A. E. Cowley published a very careful study of all the material available to him.⁶ Still more cautious in some respects is the presentation of J. Leibovitch.⁷ By far the most extensive, and in some respects the most intensive, work has been laid before us by Hubert Grimme.⁸

¹ "The Egyptian Origin of the Semitic Alphabet," *Journal of Egyptian Archaeology*, III (1916), 1-16.

² "Der Ursprung des Alphabets," *Nachrichten der K. Gesellschaft der Wissenschaften zu Göttingen, Geschäftliche Mitteilungen*, 1916, pp. 87-161; "Die neuentdeckte Sinai-Schrift und die Entstehung der semitischen Schrift," *ibid.*, *Phil.-hist. Klasse*, 1917, pp. 437-75.

³ *Althebräische Inschriften vom Sinai: Alphabet, Textliches, Sprachliches mit Folgerungen* (Hannover, 1923).

⁴ "The Serâbit Inscriptions," *Harvard Theological Review*, XXI (1928), 1-67.

⁵ *Revue biblique*, XXXIX (1930), 578-98.

⁶ *Journal of Egyptian Archaeology*, XV (1929), 200-218.

⁷ "Die Petrie'schen Sinai-Schriftdenkmäler," *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, N.F., IX (1930), 1-14, with 17 plates.

⁸ *Die altsinaitischen Buchstabeninschriften* (Berlin: Reuter & Reichard, 1929). 4to. ix+134 pp. and 28 plates. Grimme's recent work includes also his *Texte und Untersuchungen zur şafatenisch-arabischen Religion* (Paderborn: Schöningh, 1929). 188 pp. and 15 plates.

Cowley appears to have worked, except perhaps in the case of the British Museum sphinx and one or two other texts, from excellent and very large photographs and copies with which Gardiner provided him. It would appear that he had not seen the originals, that he had little or no contact with the work being done by Grimme and Leibovitch, but that he did have from Gardiner some of Hjelt's material. Leibovitch worked in the Egyptian Museum at Cairo, probably knew something about Grimme's work in the same place, although Grimme's book appeared only after his manuscript was in the hands of the editors of the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, and had in hand some of the results of the Hjelt expedition; he seems to know nothing of Cowley's most recent work. Grimme had four weeks in the Museum at Cairo, during which he was shown every courtesy, so that he examined everything both with the naked eye and with a magnifying glass, covered the stones with tinfoil to bring out the lines and to serve as squeezes, made copies on tracing-paper, and had excellent photographs taken. He had some knowledge before publication (cf. his p. 129) of Dr. Leibovitch's¹ work; he had considerable help from the Hjelt expedition; but he seems to know nothing of Cowley's latest readings.

For results it is best to begin with Leibovitch, whose objective was in one respect the least pretentious, in another the most fundamental, of the three. He describes his work as an attempt to give to scholars an exact description of the (alphabetic) symbols and of the inscriptions. He, like Grimme, used tracing-paper; he describes his copies as drawings made by the help of a simple tracing-paper under proper illumination. The writer would be much interested to know the exact manner in which tracing-paper was used by the two men who confess to its use, Professor Grimme and Dr. Leibovitch. The results arrived at by the two are in many cases very different. The usefulness of the process on the uneven, weathered, and frequently broken surfaces of this soft and friable sandstone would seem to be rather limited. A statement of the exact nature of the process or technique used and the results obtained by one or both of these scholars would be most welcome. Unless, however, in the meantime permission to use the same

¹ Grimme: "Leibowitsch."

process has already been granted to one or two further experts with middle-of-the-road minds—which would, perhaps, be only fair—it is to be hoped that the Cairo Museum will soon discontinue the use of the stones for such handling and preserve their crumbling surfaces from any further possible harm. They are probably even now kept under air-tight glass, except when laid open to examination. For the preservation of crumbling sandstone the able and clever preparator of the Oriental Institute of the University of Chicago, Mr. H. P. Burtch, advises slow, careful, and long-continued spraying with a very thin solution of shellac in alcohol. Whether this or another process, e.g., a very thin solution of gum arabic in water, be used, it seems to the writer that this word of warning should now be given.

With all the precision of his labors Dr. Leibovitch appears to remain excessively cautious and skeptical. At the outset he is inclined to consider the judgment of Petrie—"It is a definite system, and not a mere scribbling"—as the only certain and reliable opinion on the Sinai inscriptions yet arrived at. He speaks hesitatingly of Gardiner's epochmaking discovery of "Ba'lat," his extreme doubt being in some measure excusable by the fact that he had neither seen nor heard Gardiner's latest statement on the manner in which this word was discovered.¹ With this word in hand, to which he might have added at least half-a-dozen others with nearly as great certainty, Leibovitch's hesitancy as to the Semitic type of the language represented becomes overcautiousness, which is nearly as fatal as rashness and leads sometimes to a like employment of an excess of imagination. The literature listed in his statement contains everything of real value up to the point at which this study sets in.

Under the caption "The Alphabet" Leibovitch then proceeds to describe the written symbols, of which he distinguishes 24 types (presented in his Plates XIV-XVII), in which altogether 220 occurrences of the symbols are listed. The photographs published by Grimme of 347a² and of 357 complete³ would add 28 more, not to exceed 248 in all.

¹ Palestine Exploration Fund, *Quarterly Statement*, 1929, pp. 48-55.

² The writer in his own treatment of the inscriptions (pp. 25 ff.) calls this 347b.

³ Cf. Leibovitch's drawing on the plate opposite his p. 12. On that plate the second legend, "Nr. 17 (358)," should be deleted.

Descriptions and drawings presented by Leibovitch are in the main unexceptionable. His listing of types II–V as apparently separate symbols, though his note following V presents the strongest kind of evidence for listing them as variant forms of the same symbol, appears to the writer to be an excess of caution which may easily mislead readers not acquainted with Egyptian or Semitic epigraphy. As against this supercaution the writer can by no means share the superconfidence with which in the same note Dr. Leibovitch asserts that these symbols can represent only an offering-tablet or a cistern. The Meroitic, cautiously compared by Sethe, seems to have obsessed Dr. Leibovitch's mind just as Thamudic, Lihyanic, and Safatenic, correctly enough adduced for comparison by Professor Grimme together with earlier South Arabic, appear to have obsessed the latter's mind. Offering-tablets could clearly have not only the forms outlined, but an almost indefinite number of others; they do not belong in the Semitic world, nor do they offer anything feasible on the acrophonic principle. The cistern (*bōr*; cf. *b^oēr*) of biblical Hebrew makes sense in the latter respect; but the writer cannot see why forms II–V could not all represent an early Semite's idea of a house, the Arabic *bait* or *dār*, four walls within which rooms, lean-tos, or cabins might be arranged to suit himself and in which he might or might not—as suited his fancy—indicate an entrance gate or passage. Moreover, one need only tip up the form V to arrive at a fairly close and probable ancestor of the later Northwest Semitic *bēth*.

With regard to symbol VII, it is not clear why this can represent a man in the attitude of adoration only. Leibovitch's footnote and the statement of Ebers quoted by him seem distinctly to allow for an attitude of jubilation or *hallelujah*. Attention should be called to the fact that nearly all the occurrences precede immediately, or at most with the intervention of one sign, the group read as "Ba-lat." The evidence for its second occurrence on No. 12¹ (354) is not presented.² It is doubtful whether the form taken from No. 15 belongs here. That text itself may be both 358 and Cowley's provisional 359. If so, then Cowley has read the same inscription twice, in opposite directions and with different values for some of the symbols. That is by no means

¹ The "Nos." referred to at this point are those of Leibovitch.

² Contrast Grimme's excellent presentation.

improbable, since Leibovitch's No. 15 is clearly Grimme's 358 turned other end up. Both had in hand Hjelt's copy, in addition to which Grimme had Hjelt's photograph, just as Cowley had in hand a photograph furnished him by Gardiner. Harvard and Grimme show the same orientation as Cowley's 358; but the probabilities favor Leibovitch (= Cowley's 359), as will appear later.

Under symbol VIII much is extremely doubtful; previous readings have influenced Leibovitch's eyes. The form from his No. 2 (345) especially seems to be a symbol which, with the descriptive note referring to it, should be listed in another place. It seems to occur only this once, though Grimme, not without some shadow of justification, would find it inverted on 352. The trouble with Grimme's identification in the latter case is that his assumption spoils a perfectly good "Ba^clat" in order to secure more complicated religious material.¹

When Dr. Leibovitch places the troublesome angular symbol, fourth from the top in the right-hand column as one faces the statuette No. 4 (346), under his symbol XII, we have the feeling that we owe him a bit of acute observation. Whether this is correct or not cannot be decided from his and Grimme's photographs, though the widely differing readings of Cowley and Grimme give one pause. On the other hand, one must clearly hesitate over the curious symbols of No. 10 (351) in this category; the first two are not like the third, which forms a part of the well-known "Ba^clat."²

Under Leibovitch's symbol XIII the form assigned to No. 5 (346) occurs on No. 13 (356) instead. Neither that form nor the one called XII on his No. 16 (357) belongs here. His example from No. 4 (346) belongs under XIV.

The actual palm of the hand is clearly apparent in the group put together under XIV, most clearly in the puzzling and troublesome No. 6 (349). The last sign on No. 8 (353), if Dr. Leibovitch has seen it correctly, comes next in probability. To see a hand in a fair but somewhat conventionalized copy of the curious sign or combination of signs on the British Museum sphinx, No. 2 (345), was quite a feat. Once it is suggested, the softer outlines and somewhat different angles

¹ The symbol here, partly worn away, may have to be supplemented quite otherwise, as will be shown later.

² Cf. Leibovitch's copy with Grimme's excellent photograph.

of Grimme's photograph do really seem not impossible as the crude outline of a palm, with the forked element representing thumb and forefinger. It is, however, quite as possible, perhaps even more probable, that the forked element is a separate symbol. The whole may, indeed, very well be three symbols: (1) XVI, the snake; (2) VIII, the two lines or sticks; and (3) the forked element. The last may be related to two of the forms of XII found on No. 10 (351) or to the South Arabic form of *j*. The three strokes on No. 15 (358) make an extremely doubtful hand. They can scarcely be numerals, as they appeared to be in the Harvard publication and as they are still read by Cowley.

As to sign XV, one wonders whether the scattered and partly curved affair in the left-hand column of No. 8 (353) is one sign or two, and whether the lower and more curved form in the right-hand column of 353 and the two symbols listed here from the one imperfect copy in which No. 1 (348) is known belong here at all. It certainly seems in every way more probable that at least one of the latter belongs under the next number, XVI.

Under XVII everyone will note the rather doubtful example given from No. 13 (356).

The XVIII's all look in Leibovitch's copies like representations of a thumb; but all three are poorly attested.

Of the fish, XIX, at least two well-attested examples exist. In the questionable example from No. 13 (356) Leibovitch, much to one's surprise, sees even more than Grimme.

For XX the attestation from the photographs appears weak.

In the case of XXIII one wonders whether one is dealing with an alphabetic symbol at all. It occurs only in close connection with VI.

Sign XXIV, reconstructed without the help of Petrie's fine photograph published by Grimme, is more than doubtful. Reading from a photograph is hazardous, but this one does seem to suggest in lieu of Leibovitch's unique example either a succession of symbols or something nearer to others that are known.

With all that has been said, it remains true that for those who are interested but cannot themselves go to the various places which contain the originals the best presentation of the raw materials is given

by Leibovitch's statement and drawings together with Grimme's photographs.

Coming now to Cowley's work, we have before us a study similar in caution, but exactly the opposite in purpose, to that of Leibovitch. The statement that this is the cleverest attempt at interpretation to date will meet with little opposition. And interpretation is the sole aim of Cowley's article. In fact, if one were inclined to quarrel with Bodley's librarian, it would be on this score. Having in hand, as he says, a series of excellent photographs, and publishing in a journal given to the printing of excellent halftones, what prevented the publication of these reproductions, as Grimme and Leibovitch published theirs? Those of us who have as yet no other means of study and identification would have been very grateful for these added lights and shades. As it is, we must rely on the work of others in order to check Mr. Cowley's results.

On these results we find ourselves in substantial agreement with Mr. Cowley to the middle of his page 202. At only one point do we hesitate. That these symbols were invented for the sole purpose of carving on stone is difficult to believe. There are too many curves, even for the sandstone; the stroke of the reed pen-brush is too obvious everywhere. Some native foreman who found it useful to keep his own records on more perishable material would appear to be the most likely originator of such a system. Such records, of course, are gone, and we have left only the more slowly disintegrating stone.

Starting with the Negebites on page 202, we begin to feel controversial, as no doubt Mr. Cowley expected us to and as he himself probably feels. The whole paragraph on the Negebites as "freemen" is most attractive. We would love to accept it *in toto* as solving a whole parcel of problems; but, aside from other things, the symbol for *g* is Mr. Cowley's own, found but once (in a place not recognized by him: 349, line 4) outside of the combination *n ḡ b*, and is not read by others as *g*. The reading most favored by others is *ṣ*, which fits as well in every respect. The symbol as found looks fully as much like a pouch (*ṣ^erōr*) or a snare (*ṣammām*, Job 18:9; cf. *ibid.* 5:5) as it does like a bowl (*gullah*); the designation *naṣṣābīn*, "*maṣṣēbah*-makers," i.e., "stele- or monument-makers," is fully as probable for these men as

the problematic but more clever "Nagibin." Besides, as Leibovitch points out, a similar symbol is found in Libyan for ς .

In 345 we come to the first occurrence of the troublesome symbol numbered VII by Leibovitch. Mr. Cowley sticks bravely to his view that this is a determinative of divinity, though this view is not shared by many besides himself. It was pointed out above, and Mr. Cowley himself states, that practically all the assured instances of this symbol occur before an assured or probable "Ba \l lat." This remains true with Dr. Leibovitch's new readings, for even the isolated symbol on a fragment of 354 may have had a "Ba \l lat" following. In any case this and one on 357 would be the only exceptions. On the other hand, the occurrence of a determinative in the midst of otherwise alphabetic symbols, though not impossible, is improbable. The similarity of the symbol to three symbols for various h -sounds in South Arabic has been neatly demonstrated by Sethe.¹ The fairly certain reading of the Egyptian hieroglyphic inscription on 345 itself, "Beloved of Hathor, lady of the turquoise," makes a similar reading of the associated Semitic inscription at least as probable as Mr. Cowley's. Exactly the same succession of symbols $m \supset h b \l t$ found on 345 is as probable a reading as anything else on 350 and 351 also. The omission of \supset in a participle $m \supset h b$, "beloved," in 348, 352, 353, 354, and 356 is no more hazardous to assume than (with Cowley) the same omission in a pronoun $m \supset$. In fact, by reading h instead of h we would have without \supset a different word with exactly the same meaning, "beloved." Finally it may be urged that after all "Ba \l lat" does occur a number of times, apparently after a preposition, without this supposed determinative, on our sphinx (345) itself, on 346, and probably on 347a.² For the word preceding $l b \l t$ on 345, the writer would like to propose *nazīr*. The n and z are quite likely. For the forked symbol we have the choice between South Arabic j in known *nazīr*, or the Northwest Semitic w in an unknown but perfectly feasible passive participle *nazūr*. An r -head lying on its side is perhaps an even more probable solution than any hitherto proposed for the partly erased or eroded symbol between this and l . And this might well mean just what Mr. Cowley posits: "Dedicated (or 'devoted') to Ba \l lat."

¹ *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, N.F., V (1926), table on p. 36.

² The writer's 347b (pp. 25 ff.).

On the front of statuette 346 Mr. Cowley wisely begins with the unbroken right-hand line. His reasoning for the assignment of the value *d* to the fish symbol is forceful but not cogent, more particularly because it does not arrive at any very satisfactory conclusion. If we restore the more commonly assumed value *s* and then follow Leibovitch's fairly convincing argument on the following, apparently double, symbol, we get *z l s l l m b c t j*, which may very well mean in a South Arabic type of speech: "This (is) for the fulfilment of my prayer." Or, if we see the first sign with Grimme's eyes as *c* instead of *z*, we may omit the "this" at the beginning. This latter is the more likely, because the other two inscriptions on this monument begin with *c l*. The pronoun "my" at the end is somewhat uncertain; but this may be changed by conjecture to any other pronoun or be omitted altogether and still leave the reading quite as feasible.

The broken left-hand inscription on 346 has been restored in various ways. Mr. Cowley would restore "For the prosperity of the servant (i.e., priestess) of Ba'lat" or "For the prosperity of the priestess. (Dedicated) to Ba'lat." His alternative represents his own measure of dissatisfaction with his reading. It is unnecessarily complicated in grammar, and we have no indication anywhere else that there was here a maidservant-priestess. Certainty can scarcely be attained by conjecture, because we have no exact parallel in these inscriptions. The simpler and more straightforward the reading, the better. Hence we venture *c l n [c m t r] m t* (i.e., *terūmat*) or simply *m t* (i.e., *mattāt*) *l b c l t*, i.e., "For favor, a votive gift (or simply 'a gift') to Ba'lat."

The inscription on the side of 346 is rather easier¹ if, instead of Mr. Cowley's unnecessarily hypothetical "Nagibin," we follow the more commonly accepted value *ṣ* for his "*g*" and read *c l n c m r b n ṣ b n* (so Butin), putting the last word in the *opifex* form as *naṣṣābīn* and translating, "For the favorable acceptance of the foreman of monument-makers."

On 347+347a,² since Mr. Cowley has here come into the fold with Gardiner, there is no further difficulty. All is perfectly serene if we all read together *t n t l b [c l t]*, "A gift to B[a'lat]."

In his reading of 348 it seems to the writer that Mr. Cowley quite unnecessarily complicates the problem. This copy of a squeeze made

¹ Cf. Leibovitch, p. 12, note on his Pl. XIII.

² The writer's 347a and 347b (pp. 25 ff.).

by Palmer in 1868 can so easily and simply be supplemented and read from the better examples that it is quite unnecessary to posit new words. It is Cowley's determinative that here complicates the problem for him, incites him to emend the preceding sign to *l*, and then demands a verb for completion. It seems far simpler and more natural to supplement the first word as on 347 to [*l*] *n t* or to read, as was suggested on 346*b*, *m t*. In any case a noun meaning "gift" is wanted. In what follows we have almost certainly a reading parallel to those of 345*a*, 350, and 351, in the form found on 354 and 356, i.e., as was suggested above, either *m* [◌] *h b*, with [◌] elided, or *m h b* (i.e., something similar to Arabic *muḥibb* or *muḥabb*). The letter *b* written singly, as well as written doubly,¹ may quite well serve to indicate intensified pronunciation, as in South Arabic.² There is nothing astonishing or improbable in the assumption that the same *b* serves as the end of *m* (◌) *h b* and the initial letter of *b* ◌ *l t*. Thus read, we have quite simply: "The gift of a lover of (or, better, 'a beloved of') Ba'lat." One would much like to know on what sort of an object this inscription was found. From the few known examples one would surmise a sphinx, statuette, or plaque with relief. Is any record of Palmer's left to show?

Thus far all seems relatively plain sailing. With 349 we come to the *bête noire*, or, if one follows Professor Grimme, the *pièce de résistance* of the entire collection so far as yet known. It was clearly at the time of manufacture a sort of simple masterpiece. The extent of its text, its variety of signs and words (contrasting sharply with the simplicity hitherto met), the clearly marked dividing lines, and the relative regularity of its seven lines (all pretty clearly running from right to left) all set it off from its fellows. Unfortunately it is now what Mark Twain's horse Baalbek proved to be, "a magnificent ruin." On a large part of its badly eroded and partly broken surface different students see rather widely differing symbols and read, interpret, and supplement what they see in widely different ways. The one oasis in this desolation is line 2, where again we read with Butin against Cowley: "foreman of the monument-makers *m š*." Whether the last letter really

¹ See Leibovitch, Pl. IX, No. 10 (351), and cf. the possibly double *l* in 346.

² See Guidi, "Summarium grammaticae Arabicae meridionalis," *Le Muséon*, XXXIX, 4, § 6.

is š; whether the two letters form a proper name; if so, whether it is a "Moses"; whether the š is indeed the end of a word—who shall say with any degree of certainty? With all his pretentiousness in other directions, the engraver had not arrived at the art of word separation.

In the first line of 349 so many, beginning with Petrie, have identified the symbols as ² n t z š that it would seem folly to read otherwise from a photograph, even one as clear as that published by Grimme. There is evidently room for one more letter at the left end in what is now a deep hole. Leibovitch alone seems to think it possible that a letter may have preceded the ox head at the beginning (right); there is clearly room for one in this space, which appears to be rather deeply abraded. In lieu of anything better the writer feels content for the present to adopt Mr. Cowley's suggestion for the first three symbols. There is no reason why men working for Egyptians should not adopt a number of Egyptian terms. But instead of Mr. Cowley's translation Professor Edgerton suggests the meaning "offering, tribute" (properly ³ n w). This would fit quite as well with Mr. Cowley's restoration of t at the end of the line, and perhaps better with a simpler reading of what follows.

Seeing more or less eye to eye with Leibovitch, the writer finds in line 3 of 349 a slightly doubtful c and a fairly clear r. Then follows a hand, which Cowley would read k, but most others j. Another possible form of j was noted above in 345. Aside from the fact that the symbol on 345 might be read as w also, it does not seem impossible that different, more or less conventionalized symbols of a hand might be used for the same sound or letter in this clearly early stage of alphabetic writing. We do not know how long or short a period the documents we now possess cover, and there may have been some development in conventionalization. To the writer j seems the more probable reading. This is followed by m l b. . . . Then why not read these three lines: "This offering laid down (š t) | the foreman of monument-makers from the | goats (š^cirīm; or 'from the barley,' š^cōrīm; or possibly 'on account of the rains,' š^cirīm) to B[a^clat]?" The desert environment suggests that an even more probable reading for m š c r j m may be "on account of (i.e., 'for liberation from') the (hairy) demons," the ghūl's of the Arabs. Looking back from 352, we may present a fifth, distinctly the best, possibility, though it does

not account as well as the fourth for the "stench" which seems to appear in line 4, namely, $m \dot{s}^c r j m$, "from Sē'ir of the sea." Whence more easily could a foreman on Sinai come?

The wide variance in what Cowley, Butin, Petrie, and Leibovitch—not to mention Grimme—think they see in the broken lines that follow gives one pause. Cowley's reading appears quite as improbable as the others. In view of Leibovitch's painstaking work one does not feel sure of even the symbols which apparently match Cowley's reading in line 4. Reading with Leibovitch, the clearly distinguishable letters $\dot{s} h n z$ would suggest "this foul smell," which would go very well with the idea of demons in mine shafts. For the rest the writer thinks best to confess that before these scattered remnants his capacity stands baffled and he is more than willing to leave their solution to others.

In 350 the writer sees what is considered the third symbol in the right-hand column in another, to his mind less complicated, form than Mr. Cowley, who seems with Butin to be more distinctly influenced by Petrie's copy than is Leibovitch. The writer's eye, trained on Petrie's photograph as presented by Grimme, goes a little step farther in the direction apparently indicated by Leibovitch (see his symbol XXIV) and finds as the beginning of this broken stele the letters $\dot{s} n^c m l$, which pretty clearly mean: "Be gracious to."¹ What follows may very well be a proper name beginning with \dot{s} , then a break with room for at least one symbol (a fragment of one line of which is left) which the writer feels unable to restore. Below the break we come upon what looks like the lower part of a b , a fairly complete t , then another break with unintelligible fragments of one or two further symbols. Out of these fragments the writer cannot with confidence reconstruct any proper name which seems to him to bear any verisimilitude. The last three letters are $n \dot{s} b$, which may constitute an apposition: "the monument-maker."

At the top of the left-hand column of 350 there is clearly room for an m , opposite to the ox head in column 1. This with what follows may with considerable confidence be restored to read $m^{\dot{s}} h b [^c l] t$, "beloved of Ba'lat." Whatever may have been in a probable third (Grimme finds

¹ But cf. the reading given later with the drawings in the complete conspectus of the inscriptions.

Egyptian) and a possible fourth column, not enough remains to say. They may not belong to the same inscription. The stone may have been broken in attempting to hew out the plaque. In fact, in a number of cases, perhaps in the majority, we may have the results of such mishaps, thrown away in the very place of manufacture. If so, we may find elsewhere more perfect copies, as Palmer in 1868 found our 348 in Wadi Maghara.

In 351 again, by utilizing the results already obtained, it is possible to introduce considerable simplification. Using Grimme's photograph with the drawings of Petrie, Cowley, and Leibovitch, we read the first word not $z t$ but, as in 347 and 347a, $t n t$. This obviates the necessity of finding a verb in the two widely separated symbols that follow. What we need next is a proper name or a phrase such as "to (or 'for the favorable acceptance of') Ba'lat." Since neither of the last two looks possible, we are probably dealing with a name. A Semitic name beginning with b carries with it probable implications which will help to fill in the broken surface between b and the clear $m š$, which Petrie left unfilled. Somewhat conjectural, but this time better than the guess of anyone else, is what in the main Grimme sees, namely, $n š$ (we cannot follow Grimme's eye along the straggling crack or depression, which he makes out as j). Putting this together, we have a perfectly good $b n š m š$, i.e., "Benshemesh." The following word is clearly $n š b$, i.e., $naššāb$, "the monument-maker." Two mysterious signs conclude this line. As we cannot follow Mr. Cowley in his hazardous reading into the left-hand column, so we cannot follow him in his rather desperate conjecture here. We suspect an Egyptian word $w w t$ or $j j t$ having reference to the god Ptah or to the locality and standing in construct relation with the foregoing $naššāb$. With Leibovitch's lead the left-hand column is fairly easily deciphered from Grimme's photograph as $m > h b b < l t$, which makes unnecessary the hazardous assumptions of Mr. Cowley. The whole now reads quite simply and completely in accord with all that has preceded: "The gift of Benshemesh, the monument-maker of $w w t$ (or $j j t$), beloved of Ba'lat."

No. 352 is so badly broken, the surface of its upper portion is so badly chipped and weathered, its signs are in part so crude, and its undivided columns are so straggling, that it rivals and in part surpasses

in difficulty 349, with which it seems to show a certain affinity in other respects. Like 349 it is a favorite with Professor Grimme. He divides it in two, reads the upper part from right to left and the lower from top to bottom, and finds in it two funerary inscriptions, the upper being properly a sarcophagus inscription in which Manasseh informs us that he lies dead, whereas the lower is something between a tombstone inscription and a psalm of the dead. Not one of the more easily read inscriptions is at all of this type. All of the clear ones are simple votive offerings for favors received from Baʿlat, given, of course, in the expectation that such favors may continue. Though 349 may have some apotropaic intent, it is more probable that it, like the others, represents a gesture of thanks for a favor received in the past, in its case possibly a danger averted.

Since the upper part of 352 is so badly broken, the legible signs so scattered, the chipped spaces between so uncertain, the clear inscriptions on other monuments so different from all results hitherto obtained on this one, and the only model (perhaps we should say models, allowing for 353 as well as 349) which might give help so poor in condition and so doubtful in reading and interpretation, the writer feels quite as unsafe with Mr. Cowley's apparently practically complete reading, following Butin's lead, as he does with that of Professor Grimme. As in 349, especially toward its end, so here too discretion seems the better part of valor. The writer feels that he need neither hesitate nor be ashamed to confess that he feels by no means certain of the whole of this badly broken rebus.

Again, however, as in 349, there is an oasis in this desolation. Gratefully and safely we may follow the lead of Mr. Cowley, borne out in spite of himself by Professor Grimme, in reading in our own way column 3. Quite clearly there stands out on Grimme's photograph our old formula *m h b b c l t*; "beloved of Baʿlat." If Grimme's tracing of a fragment belonging in the gap and found in Petrie's photograph but now lost be correct, we would find in the gap between the two parts a *t*, which would make the possessor of the epithet in this case feminine. As the solitary case of this kind, this appears extremely hazardous. Without it we have a considerable gap, as above indicated. It is, perhaps, less hazardous to assume that this gap existed in the original on account of some fault or flaw in the stone

which presently caused the break. From our known material it would seem that nothing belongs here, except just possibly the *t*, which does not fill the gap in any case.

What to expect in 352 at the bottom of column 2 is easy to say from the preceding material. At the very bottom stands a perfectly clear and satisfactory *n*. Above this are unwieldy symbols crowding over from column 1. Above these clearly is the *b* which we expect to find. Over this we have what is commonly read as an *l* with a *t* on its tail. Instead of this it seems just as easy to see the two loops of *s*, with an *n* crowded between this and the letter above it. This gives the easy *nšbn*. Over this *š* is fairly clear, and the remnants above this may be those of an *r* as well as anything else.¹ Thus read, we should have here *r š n š b n*, a variant term (associated perhaps with a somewhat different time or clan or office) for *rb nšbn*. This new term would mean a "head of monument-makers." Reading from the top down on the upper fragment we have clearly *m š*, then, a little less clearly, but seen by Leibovitch and Grimme independently, an *ḥ*. In the gap Grimme supplies from Petrie's photograph a square. If this is *b*, we would have *m š ḥ b*, which in Arabic, South as well as North, could be read only as "from (or 'of') the tribe of." On the other hand, such a square, evidently indistinct, might equally well have formed part of an *r*. Then we should have *m š ḥ r* or *m š ḥ r*, which tempts us to read, as in 349, "from the barley (or 'goats')" or "from (or 'on account of') the rain (or 'the hairy demon')." On the other hand, why should we not have here, following what is almost certainly a proper noun at the bottom of the preceding line and followed by a probable title or designation of official position, the name of a well-enough known locality, viz., "from Sē-ir"?

In the probable proper name at the bottom of column 1 on 352 we meet before the final *n* a symbol not hitherto encountered. It has usually been read, but with no very striking results, as *k*. A comparison with the South Arabic *d* laid on its side and not yet propped up (*musnad*), the fact that as *d* this symbol plausibly fills a gap in a possible proper name and fits as well in the one other legible place where it occurs in this same inscription, and the further fact that a value *d*

¹ But see the new reading and identification of this symbol in the full conspectus of inscriptions farther on.

appears not unfitting in the one or two other places where this symbol occurs or seems to occur, all lead to the value *d*. Above this is the fish, *s*, directly under which comes a broken spot over one unused *n*. This may be something else, but to the writer there appears as a distinctly possible reading a proper name *Sīndān*, i.e., "Sīn has judged." Or is it *Sīniddin*, "Sīn has given"? Above this we find *n d r*. What more fitting group of letters could be asked for than that which means "(he) vowed, devoted"? Though we found this same root on 345 with a *z* in place of *d*, we need not be greatly disturbed. In this early time very probably no symbol for *dh* existed, as indeed it does not in Northwest Semitic much later. Individual or group differences of pronunciation may have led one scribe to use *z* and another *d*. Furthermore, the two lines of the symbol on 345 are not parallel, but flare out somewhat at the top. So they may be a somewhat sketchy *d* instead of a *z*.

The few still undiscussed signs at the beginning of the inscription on 352 can scarcely constitute more than one word. This begins with ³ and appears to continue with š. Below the gap appears the bottom of a letter which may be read in various ways; to the writer's eyes the bottom of a *b* or *r* seems most probable. To choose between these is not difficult; why should the word not be the biblical Hebrew שֶׁר? Then we have once more a simple votive inscription: "That which vowed Sīndān, of Sēīr, head of the monument-makers, beloved of Ba'lat." What the apparent *b t* at the bottom of column 4 may mean cannot be said; perhaps we may supply after it an *m* and read "seal" or "sealed, finished." The writer submits this to Mr. Cowley's judicial temper.

In 353, with the results already obtained, the first column is perfectly plain sailing if we use Grimme's excellent photograph with Leibovitch's imperfect but fundamental copy. The upper line is not a simple line, but crossed, forming a *t*; the lower line of what seems to be the first symbol is part of an *n*; below this we have *t*. That makes *t n t*, "gift of." Below the following *b* Grimme's photograph shows with sufficient clearness *n*, then š, then we read with Leibovitch *m* and š, i.e., "Benshemesh." Any child can now read the following symbols as *m h b c l t*, i.e., "beloved of Ba'lat."

If before going on with an apparently new type of material on the

remainder of 353 we may be permitted to digress, it seems best to present here in short order those remaining fragments which exhibit the same or a similar type. Like Leibovitch's two drawings of 354 (on his Plates X and XIII), Grimme's excellent photos, partly prints from Petrie's plates, show at the top *m* followed by *n*. Below this the Petrie photographs (not used by Leibovitch) show what may be remnants of *h* and *t*. The group may be read as *minḥat*, "votive gift of." Below this, with all clearness that can be desired, we have *m h b c l t*, "the beloved of Ba'lat." The upper part is somewhat conjectural, the size of the gap between the upper fragment and the lower as presented by Petrie being uncertain. The rest of the stone contains but one unattached *h*, of which nothing can be made.

On 356, in spite of Grimme's curious reading and Leibovitch's attempt to see a fish near the end of column 2, what has been shown before leads well-nigh inevitably to a definite and practically certain reading of that column. Running down it we easily see with Leibovitch *m h b*, and read on with Cowley *c l t*. The *c*, traced as the fish's mouth by Leibovitch, is practically certain on Grimme's photograph. With Leibovitch the writer fails to see Cowley's *z*, which falls quite out of line with previous simple results.

With Mr. Cowley the writer reads the first two symbols of column 1 on 356 as *ṣ n* and, like him, would see here a pronoun—a pronoun ending, however, not in *n* but, as in 357, in the following *j* or *k*. Remembering the reading on 349, we might think of this third sign as a poorly drawn *t*. Perhaps this is not necessary. The shoe may even be on the other foot; i.e., we might read something like our sign in place of *t* on 349. To call this sign *k*, as does Mr. Cowley, works very well. The next sign is the twisted cord or swaddled bundle for which we have above tentatively accepted the commonly assigned value *h* or *ḥ*.¹ This is followed by remnants of symbols for which Mr. Cowley's reading *r b n* seems more probable than anything else suggested. Again seductive is Mr. Cowley's restoration, which would continue this succession of symbols as on 346 and 349 (cf. 350, 351, and 352) to make it his *rab Nagibin*, our *rab* (or *rōsh*) *naṣṣābīn*. But this leaves the *ḥ* rather in the air. The solution may be more simple.

¹ The Egyptian original of this sign is a twisted hank of flax fiber, with the value *ḥ*. See A. H. Gardiner, *Egyptian Grammar* (Oxford, 1927), p. 510, sign V 28.

If we take $\text{𐤁} n k$ as "I," then the proper name following is not a new and complicated problem but the very simple $h r$, "Hur." We have in these inscriptions no Moses, no Manasseh, no Aaron. In fact, we have probably no Jews at all; but we do have Hur. Under it is a *ben*; but unfortunately the father's name is broken away, as in Exodus Hur's father's name is lacking. At any rate this Hur is no Jew but a mere "beloved of Ba^lat," less kin to Moses' lieutenant Hur than to the Midianite king of Num. 31:8 and Josh. 13:21. If Moses' Hur also was a Midianite, i.e., of Sē^ltr, there may be a reflection of the early or late opinion of the Jews about him in the sacred genealogies of Chronicles. J. M. P. Smith points out that in I Chron. 2:19 he is a son of Caleb, i.e., in the last analysis an *ibn kalb*. We read, then: "I am Hur, son of . . . , beloved of Ba^lat."

We may as well dispose here of a really new fragment brought out by the Hjelt expedition. It is Leibovitch's No. 14, Cowley's 360, more accurately numbered by Grimme (see his pp. 132-34) as 359. Available for its study are one small but fairly clear photograph (Leibovitch, Plate XII); Leibovitch's copy, Grimme's copy, and Cowley's reading in square Hebrew characters. The photograph and Grimme's copy appear to be the safest guides. That the first letter is 𐤁 seems highly questionable; horns so long and a nostril so pronounced are found nowhere else. The so-called "nostril" looks on the photograph much more like a pouch-shaped 𐤁 . If so, then at least one of the straggly lines above this may well form part of an *n*. Underneath this conjectured combination we have a clear *b* and then a clear *m*. At the bottom a little good will may see with Grimme remnants of 𐤁 (or 𐤁). This combination might point, in the light of our preceding readings, to a "monument-maker from S[ē^ltr]."

A similar offhand disposition, not quite so satisfactory, is all that can be made of 358, Leibovitch's No. 15, which is probably both 358 and 359 in Cowley. As has been pointed out above, we do not know which is top and which is bottom of this inscription, despite the statement (Cowley, p. 216) that it is "on the rock wall inside mine M." Leibovitch and Grimme rightly complain that we do not know what that means, since we have no reliable sketch of the situation. The position of the two *l*'s seems to be against Grimme, but the original American copies support him. An *m* (apparently with a curious *t*-like

cross in it) and the two *l*'s are clear. An *c* is probable. All else, including a supposed *z* (in Cowley's 359), is very hazardous. Turned as in Grimme (= Cowley's 358), the inscription may possibly contain a "Ba^clat," as Mr. Cowley suggests, since the *t* which he posits in place of *m* may indeed have been attempted as a correction. Turned the other way, we might suppose *m*, then (instead of a peculiarly flat and horizontal *l*) *š*(*š*) and *c*. What follows, looking in the flashlight photograph like the *z* lines, in the American copy more like a *b*, might, as has been assumed in a few other cases, be a partly vanished or imperfectly reported *r*. This would give us *m š c r*, i.e., "from Sē^cr." Lest one be surprised at finding this in the mine, let it be said that this "mine" may be nothing but a quarry from which these tablets were mined. In the photograph it looks as though a chisel had been used to outline a stele here as in the other cases. In the attempt to cut this out from the rock wall the stone seems to have broken away so as to destroy the stele; the remnant was then simply left in place.

Now follows a double problem in 353, which is related on the one side to 351 and on the other to the miserable fragment 355. Our independent reading of 353, column 1, shows clearly its contemporaneity with 351, for it deals with the "gift" of the same person, "Ben-shemesh," described as "beloved of Ba^clat." Columns 2 and 3 of 353, as Butin and Cowley indicate, are very problematic. Butin states that column 2 "seems to have been purposely defaced by means of a chisel."¹ Cowley says: "There can be no doubt that the inscription has been rejected as unsatisfactory and intentionally defaced," and column 2 "is all so uncertain that it is better not to guess at the reading." The intentional defacement running down roughly between columns 2 and 3 and curving to the left at the top, clearly visible in Grimme's photograph, suggests that another experiment was tried here. An attempt was apparently made to start the outline of

¹ *Harvard Theol. Rev.*, XXI, 61. *Ibid.*, pp. 6, 7, 56, 61, and 66-67, it is stated that 351 and 353 were originally on one and the same slab. This idea has been taken over by Leibovitch on his pp. 11-12 and by Cowley on his pp. 209, 211, and 212. Grimme, however, recognizes the mistake (*Die altsin. Buchstabeninschriften*, pp. 24-25). That 353 and 354 (not 351) were thus joined is certain from Gardiner's Pls. III and V in *JEA*, Vol. III. The latter's Pl. III even suggests that 355 also was part of the same slab, the arrangement being 353+354+355. None of these appears upside down with reference to the others, as the Harvard group would make 351 with reference to 353.

another stele. As to the advisability of not guessing at the reading, one can only agree with Mr. Cowley. But why, then, did Mr. Cowley guess so fully and in part so unhappily (e.g., on col. 1)? In regard to his remarks on column 2 that "the sign like a beetle, shown in the early copies at the top, is probably nothing (so Butin)" and that "a sign not found elsewhere" follows, we must on the basis of Leibovitch's drawing and Grimme's photograph of 355 differ from him.

Mr. Cowley ruled 355 out altogether, and it is indeed a pitiable fragment. But it is most valuable, though the writer can interpret none of it with any feeling of certainty. It shows in the middle at its top not only the symbol described by Cowley and Butin, drawn by Grimme as a (scarab?) beetle, but underneath this, in somewhat different relation to it, the same outline of an arm which we find in a different posture on 353. That these symbols, especially the upper one, are not alphabetic at all is to the writer's mind certain. As drawn by Leibovitch they might be a crude attempt at a sun disk placed over an arm with fingers outstretched to scratch out the evil eye. Looking closely at Grimme's photograph of 355 (on his Pl. XV), the position of the arm with relation to the outlines above makes one think as a possibility of the outline of a complete figure of some such deity as Bastet or Anubis or Upwawet.¹ In that case it may even be that some of the odd remains of chisel marks under these upper two symbols in the middle column of 353, which scholars have tried to read as remains of letters, are really remains of the outline of a god, just as Ptah in his chapel has been outlined on the closely related 351.

Column 3 of 353 is in some respects the worst of all. It looks, as Mr. Cowley has remarked, like a practice column for an inexperienced cutter—used for this purpose after the rest of the stone had been condemned. There seems to be a crude imitation of the upraised arm of column 2. The only consecutive signs intelligible to the writer are a badly scrawled *š m š* ("sun") just under the horizontal crack and about opposite the same signs in column 1. For the rest the writer is content for the moment to follow Mr. Cowley's advice.

On 355, in close connection with what may be a crude representation of an Egyptian god, and possibly even forming a part of this

¹ Illustrated in Erman's *Handbook of Egyptian Religion* (London, 1907), pp. 14-15.

representation, we have the twisted cord. What may be its function here, we have not enough context to tell. Whether or not this sign among others occurs toward the bottom of column 2 of 353, and, if it be really present, what is its function there, belong in the present state of this writer's tools and knowledge to the unsolved uncertainties of 353. To the left of the mysterious fragments on 355 stands what seems clearly to be a *b*, with a curved line under it which may to the writer's mind as easily be an *n* as the curious thumbnail outline of Leibovitch. Altogether this would sum up to *b n*, possibly *ben*, "son of"; but whose son does not appear.

There remains only the hitherto wholly mysterious 357. The photograph, apparently that of the Hjelt expedition, which Grimme publishes on his Plate XIX is better than those of the Harvard expedition. But it still leaves much to be desired. The four or five signs at the top of the vertical column, probably the beginning of the inscription, are so faint that aside from the outlines of the initial ρ the writer can make out nothing with certainty. The differences in the two signs below this, traced by Grimme and Leibovitch from the same photograph, give a fairly clear indication of this state of affairs. In regard to the second sign there is sufficient agreement to make the assumption of *n* fairly safe. Grimme, borne out by Butin's rough sketch and by the analogous beginning of 356, seems more correct than Leibovitch in his tracing of the third sign. If so, we have here, at least in the first three letters, an absolute analogy to 356: $\rho n k$, "I." But the rest of the inscription is not analogous.

The end of 357 falls apparently into a relatively clear-cut pattern. The symbol in the next to the last space is a well-attested *b*; this is preceded by a clear *r*. Before this Cowley, with Butin, read the snake, *n*; Grimme read a snaky sign of his own with two horns; the photograph looks most like Leibovitch's ox head, ρ . In the space for the last symbol or symbols the Americans read this snaky tracing as *p*(?) over ς ; Leibovitch has ς ; Grimme has ς and *n*. The ς common to Leibovitch and Grimme is sufficient to assure a reading as $\rho r b \varsigma$, "four." It may (with Grimme) be "forty"; but Grimme's involuntary evidence supports the reading "four." In the left-hand corner of 357, where the vertical line meets the horizontal, Leibovitch curiously registers a

blank, whereas the Americans saw four strokes.¹ Grimme's photograph clearly shows the four strokes; and his eye also saw them, but with the ornamental quirks into which it so often betrayed him. Following these numerals we have what may be considered a blossom, Hebrew *gib'ōl*, i.e., the letter *g*, then clearly *m* and *ʿ*. We could not ask for better. We are in a pit or shaft of a mine, biblical Hebrew *gummāš*, older Aramaic *gumāʿ*. Here perhaps the writing includes the following *ʔ*, giving *gumāʿ*.² The *gumāʿ* or *gumʿā* is preceded by *m n*, which looks like the preposition *min*. The word following *gumāʿ* or *gumʿā* may then be *ʔ m r*, either "command," "commander of," or simply "affair, thing" (as in Job 22:28). In this last sense we might translate it with its associates as "of pit No. 4." If it be *m r* only, the writer is reminded of *mar*, "master, captain of," which he recently read for Professor Chiera on a seal impression dug up in Sargon's palace at Khorsabad and belonging to the *mar* of Sargon's eunuchs; but *mar* is a foreign loan-word probably not found in Semitic languages until much later than any date probable for these Sinai inscriptions.

Starting now once more from the top of 357, our *ʔ n k* will be "I am." Then we see *š*; a *pēʾah*, "boundary, edge, corner," i.e., the letter *p*; *n*. *Shāphān* is perhaps a good-enough proper name; but it may be used in the sense of "badger." Can this designate some type of burrower or miner? With the evidence in hand the writer at first hesitated before the actual proper name following: *S ? m ? ? ʔ ?*. Then he saw that, if the second letter be an *h*, as Leibovitch sees it, we have an Arabic type of name, *s h m* with the name of a god or goddess following. With this much read, the somewhat fanciful strokes of the following combination fall most naturally into the reading *l ʔ t*, i.e., "Lāt" or "Ilāt." The following two letters are best read as *r b*. Thus we have once more nothing impossible, nothing of Moses, but a phrase that fits exactly in the place in which it is found: "I am badger Sahmilāt, foreman, of pit No. 4."

Through a comparison of Mr. Cowley's ingenious readings with source material furnished chiefly by Leibovitch and Grimme, for some

¹ They saw indeed still more strokes underneath; but they were somewhat obsessed with the idea of numeral strokes, which they saw elsewhere in far greater abundance than they have been seen since.

² Others may read *kumʿ* or *qumʿ*, and it will still remain the mine pit or shaft.

of which we have ultimately to thank the generosity of the Hjelt expedition, this paper has become pretty clearly not *another* solution but a real solution of the Sinai inscriptions—as easy, as unstilted, as unpremeditated, as surprisingly fitting into the local circumstances conditioning these inscriptions as did Gardiner's "Ba¹lat," from which with Sethe's rigidly logical help the writer feels he has gone on.

At this point we would make, as was originally intended, a statement on Professor Grimme's latest work and publication. To satisfy his Egyptological colleagues the writer, an Arabist, will say at the outset that he knew long before the discovery of the Sinai inscriptions something of Professor Grimme's fecundity of imagination, frequently so overwhelmingly strong that it suffered but imperfect control from known facts. When this has been said, there remains on the other hand a due meed of credit which Professor Grimme deserves without stint. His most imaginative earlier work was, after all, the motive power which gave tremendous impetus to further investigation. After a careful examination of the documents Professor Grimme has now modified very considerably his earlier findings. If he was unable to break completely the "veil of Moses" which had so completely held his eyes at first, that was but human. To the writer it seems that it was this very "veil of Moses" which mystified, in somewhat less measure, the eyes of Butin and Cowley and even Sethe, so that they also did not see simply and directly.

With the readings above given, shown with the manner in which they were arrived at, it is scarcely necessary to say much more about the elaborate structure of Professor Grimme's book. Following this brief statement, we may say only, to Professor Grimme's credit, that in several cases he saw fully as clearly or more correctly than his critics, e.g., in 345a; in the relationship of 355 to 353, about which more anon; in the perfectly correct reading of "Benshemesh," however imperfectly rendered, on 351; and in the identification of the new Hjelt photograph, Cowley's 359, Leibovitch's No. 15, with 358. Finally, it is greatly to Professor Grimme's credit that he had the courage of his conviction in sufficient measure to present to our eyes with his elaborate readings the best photographic evidence yet set forth in print, the very evidence through which the results here

presented, which completely annihilate the Grimmean "veil of Moses," were arrived at. For the rest, he who runs may read for himself and compare our results, systematically presented below, with those of Grimme as well as with those of others. Our feeling is not that we have solved cleanly and forever every detail, but that, walking in the footsteps of Gardiner and Sethe, with few tools and scanty sources but with stringently controlled imagination, we have made a considerable advance toward the solution of the Sinai inscriptions with sufficient lucidity and verisimilitude to make retrogression difficult, if not impossible, and to outline clearly the severely limited path of progress.

THE INSCRIPTIONS AND THEIR READING

It seems best to present the inscriptions not in the purely accidental order of discovery, as they were naturally first numbered. Our classification will not be as elaborate as Professor Grimme's. We have but two clear types—votive inscriptions and one merely declarative graffito—besides fragments too small to be identified. So extremely simple a division is not quite sufficient. The inscriptions appear in three forms:

I. A few votive inscriptions which apparently begin with the preposition *ʿal*.

II. A larger number beginning with some noun designating the object dedicated or devoted.¹

III. Those a little more boastful, which begin apparently with a capital "I." The declarative graffito 357 also is in this form.

Our final group is

IV. Fragments too small to be classified.

Under this classification the sixteen inscribed fragments available and numbered,² from that found by Palmer in 1868 to those known to have been brought back by the Hjelt expedition, will be found in the following order, their various inscriptions being separately lettered:

I. Nos. 346*a*, *b*, and *c*

II. Nos. 345*a* and *b*, 347*a* and *b*, 348, 351 and 353*a* (with excursus on 353*b* and *c* and 355), 354(?), and 352(?)

III. Nos. 349(?), 350, 356, and 357

IV. Nos. 358 and 359

At the end is presented a brief statement on the new Gezer fragment and the new finds of the recent American expedition, so far as they have been published by Father A. Barrois.³

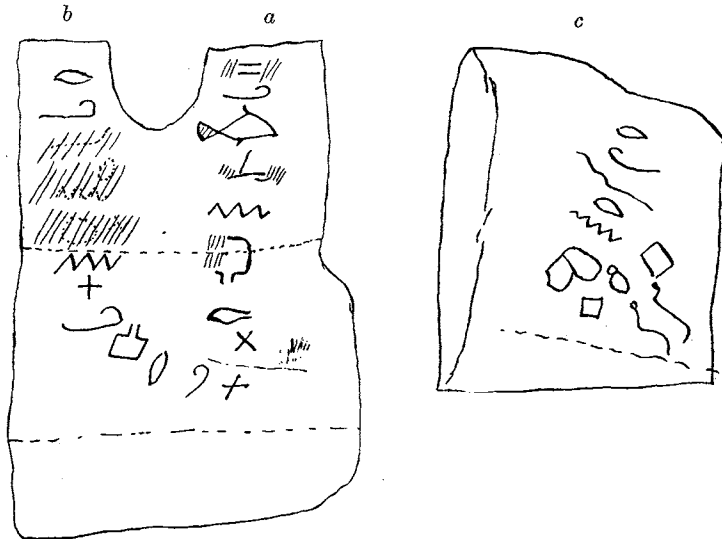
¹ Two fragmentary inscriptions intimately associated with this class will form an excursus.

² Though the numbers are only 345–59 inclusive, 347*a* and 347*b* are separate objects.

³ *Revue biblique*, XXXIX (1930), 578–98 and Pls. XXV–XXVII.

I

NO. 346



a

יַעַל סַלְלָם בַּעֲחִי

or

זֶל סַלְלָם בַּעֲחִי

"For the fulfilment of (my)
prayer"

or, less probably,

"This for the fulfilment of (my) prayer."

The first letter looks like the two strokes identified as *z*; but the two rounded angles which would make it an *c* may be worn away. The analogy of columns *b* and *c* favors *c*. An *s* for *š* is not at all impossible; cf. Judg. 12:6 and *סריון* in Jer. 46:4 and 51:3 for *שריון*. The two *l*'s are uncertain, but nothing better has been proposed. Final *j* is uncertain; but the hole seems shaped like a hand, and what would wear

¹ Dots above letters mean reading uncertain; dots on line mean lost letters, one dot for each, with four dots for an uncertain number of letters; restorations are inclosed in []. In the drawings restorations are dotted and hatched.

away more quickly on this sandstone than the thin ridges left to separate the fingers of a hand chiseled in?

b

על נעם [חר]מת לבעלת

"For favor, a votive offering to Ba'lat."

Letters 4 and 5, ^c *m*, seem to be nearly or quite worn away. It was not until after the restoration had suggested itself to his mind that the writer saw, in Grimme's photograph as well as in his traced drawing, faint traces that might well be *tr*. Any better suggestion will be gladly accepted.

c

על נעם רב נצבן

"For the favor (or 'favorable acceptance') of
the foreman of monument-makers."

About this reading there can be little doubt. The last word is, of course, to be read something like *naṣṣābīn*, the common *opifex* form with a plural ending in *n*. Exactly how this otherwise unknown group or grouping of Semitic workmen in the mines of Sinai pronounced their words or exactly how their language should be classified, we do not know. That the language is West Semitic, with the exception of one proper name which to the writer appears very probably Eastern, is nearly all that we can say.¹

II

NO. 345

a

מזר לבעלת

"Devoted to Ba'lat."

The second letter, written over the snaky *n*, may be a sort of stenographic form of *d* (the thorn bush) instead of *z*. All else is clear.

b

מאהבת[ח]

"Beloved of Ba'lat."

¹ A more definite statement on this problem is presented on p. 51.

This is as nearly certain as anything of the sort can well be, exactly parallel to the Egyptian inscription on the same little sphinx: "Beloved of Hathor, lady of the turquoise." No orthography being yet fixed by any Caxton, Wilhelm Rex, or Roosevelt, the scribe wrote what he said, one *b*, not two. That is, he wrote a sound group or phrase, bothering as little as does a child about the logical, and in general somewhat artificial, division of speech into words. Whether the "devoted" of 345*a* refers to the object or, like the "beloved" of 345*b*, to the devotee, cannot be discerned with certainty.



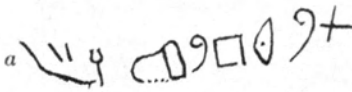
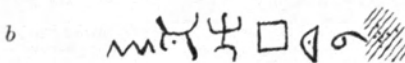
a  *b* 

FIG. 1



FIG. 2



FIG. 3

FIGS. 1-3.—British Museum sphinx, No. 345. Scale, 1:2. Photographs by courtesy of the British Museum.

NO. 347

a

תנה

"Gift."

b

תנה לב[עלה]

"Gift to B[a'lat]."

No further comment is necessary, except that the probable beginning of 348, 351, and 353*a* is furnished by this neat little pair of votive busts at Brussels.¹



FIG. 4

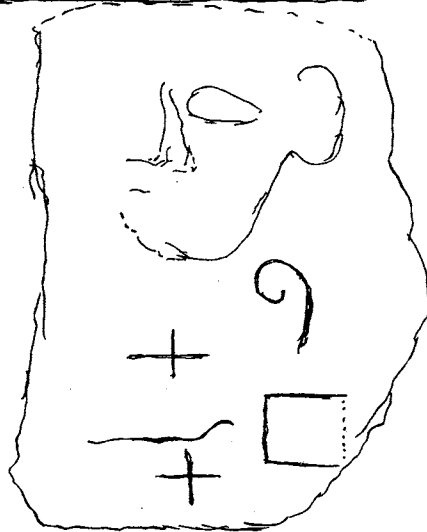
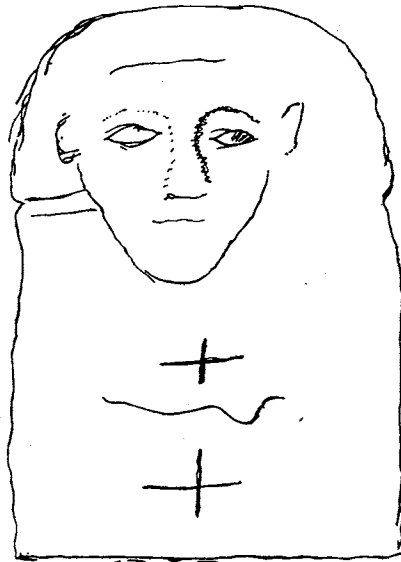


FIG. 5

FIGS. 4 AND 5.—The Brussels busts, Nos. 347*a* and 347*b*. Scale, about 2:3. Photographs by courtesy of the Musées Royaux du Cinquantenaire through the kindness of Professor Herman F. Janssens.

¹ Grimme calls these 347 and 347*a*, respectively.

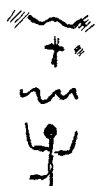
a



b

NO. 348

Considering the fact that we possess this specimen only in a squeeze and copy made by Palmer in 1868, it fits with remarkable ease and clarity into the solution of all else found, as it is now developing. One would much like to know on what sort of an object Palmer found this inscription. It looks, if this one column be really the whole, as though it belonged rather on a sphinx or statuette than on a simple stele or table of stone. The reading can scarcely be doubted:



תנת מהבעל

"Gift of the beloved of Ba'lat."



The absence of the ρ found in the word "beloved" in 345, etc., is rather less disturbing than it would be if Mr. Cowley's reading $m\bar{a}$ were correct. Aside from the general ease with which an ρ now disappears, now reappears throughout the Semitic world and elsewhere, it is not impossible that h and \bar{h} were not clearly differentiated by these early speakers and writers, that the later roots $\rho h b$ and $\bar{h} b b$ were not yet clearly differentiated from each other, and that one scribe thus thought, wrote, and spoke $m^{\circ}a$ (or u) $hhab$, and the other, m° (or mu) $habb$.

NO. 351

The ductus of the lines is clear enough to make the reading as assured as anything of this sort can well be. The scribe, perhaps the same as he of 353a, has difficulty with the spacing and order of his signs. But who can well doubt that he means to say:

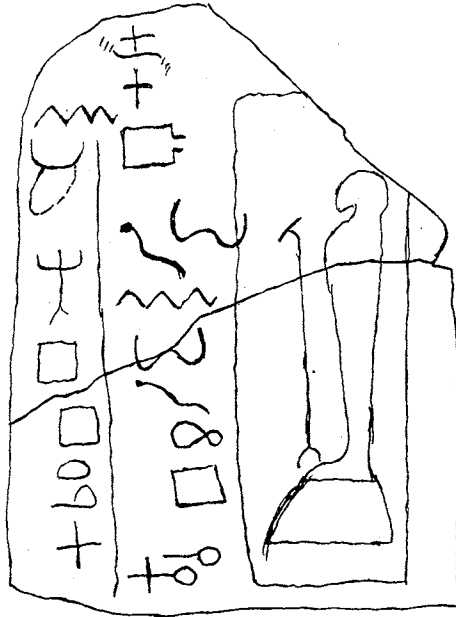
תנת בישמש נצב ונת
מאחב בעל

"The gift of Benshemesh, sculptor (or 'stele'? or 'monument-maker'?) of [Up]wawet, beloved of Ba'lat."

This and 353 and the closely related fragment 355 are over-ambitious attempts on the part of elementary pupils in the world's school of writing. It is clear that the maker is trying to put on his stele an image ($na\bar{s}b$) of an Egyptian god. What god? Seeing him on 351, we say Ptah in his chapel. But did the artist think of him as such?

Before the writer had any idea what to do with the mysterious *w w t* at the bottom of 351, line 1, he looked carefully at what remained at the top of 353 (especially as Leibovitch saw it) and, comparing it with the little fragment 355, came to the conclusion that what Leibovitch lists as his symbols XXIII and VI are not alphabetic at all, though an attempt has been made by nearly all others to read them so.

Leibovitch's XXIII, in isolation, might be a symbol of some god—a sun disk or, as others had thought (see Grimme's scrawl), a scarab beetle. But under this appears symbol VI, which is clearly a human arm. The head above this has been defaced on 353, but is fairly well represented and clear on 355. The two are probably attempts to do at the tops of these steles what has ultimately been accomplished with



greater success in the simpler lines of Ptah in his chapel on 351. What head was meant? On looking through Erman's *Handbook of Egyptian Religion* three possibilities appeared to offer themselves: Bastet, Anubis, and Upwawet. On 355 the upper arm is held close against the side and the hand of the outstretched forearm holds what looks like a X (*h*). This might be intended for or have been suggested by Bastet's sistrum (Erman, Fig. 13); on the other hand, to a Bedouin it might well mean a rope (to measure the way or to tie his pack) such as Upwawet might seem to hold (Erman, Fig. 17).¹ For Bastet

¹ Dr. T. George Allen, to whose more than editorial ability and conscientiousness we owe more than we can say, has very kindly pointed out to the writer, who is not an Egyptologist, the following material and its significance: (1) This figure of Erman's is taken from the *Catalogue of Egyptian Antiquities in the Possession of F. G. Hilton Price* (London, 1897), Fig. 2193a. It is a tiny bronze from Sais,

would speak her apparent parallelism with Hathor as a feminine deity (*ba^clat*); against her speaks her cat's head, which is rounded. For Upwawet speaks his pointed wolf's or jackal's snout, that of a creature whom the Bedouin knows. And what better god for a Bedouin than an "opener of the roads," an Egyptian Hermes?

Once this is seen, the attempt to read the further lines on the upper half of 353b becomes another matter. Are we to interpret these half-defaced lines, which fall naturally into no pattern found elsewhere, as alphabetic symbols; or are they wholly or in part remnants of the outlines of Upwawet? If so, then the *h* under the seated figure whose arm appears on 355 may be Upwawet's symbol repeated on his throne, or it may be the beginning of his name in translation, (*m^e*)*ḥōqēq^oorḥōt*, or of a proper name such as Hur, which we shall find on 356.

It was only after these considerations had been weighed that the writer came back to the curious *w w t* on 351. Its position is curiously parallel to that of the word *ṛ ḥ t*, which is all that can safely be read in the lower half of 353b under the figure identified as Upwawet at the top. The *p*, which we shall later see appearing once only under the chisel of a clever mine foreman, may have been unknown to the awkward fellow who attempted 351 and 353, or he may have found himself too crowded for room to put it in. In any case the *w w t* now strengthens the writer's supposition that the god whom our good fellow first attempted to represent and then chiseled away was Upwawet, and that we must read "[Up]wawet" here.

But why is Ptah in his chapel substituted for Upwawet on 351?

probably of the 26th dynasty, apparently uninscribed and hence not positively identified. The god actually holds the crook and "flail" proper to Osiris. (2) A seated Upwawet, *ibid.*, Fig. 2192, holds the "flail" only. (3) Middle Kingdom Upwawets in Egypt proper, at least as written or pictured on steles in Cairo, seem to be wholly animal in form; cf. the Cairo catalogue volumes by Lange and Schäfer on *Grab- und Denksteine des Mittleren Reichs*, especially the Index in their Part III, pp. 23-26. (4) The animal-headed Upwawet with human body (the combination found in the Hilton Price bronzes) is at least as old as the tomb of King Seti I (d. ca. 1292 B.C.); see A. Wiedemann, *Religion of the Ancient Egyptians* (New York, 1897), Fig. 15, next to top row of deities (taken from "Mémoires ... de la Mission archéol. franç. au Caire," T. II, 4. ptie., Pls. XXV-XXVI). It is worth noting that this tomb wall figure kneeling with upraised hands is strikingly similar to the crude Bedouin reproduction, of which the writer thinks he sees indistinct remnants most particularly at the top of 353, col. b.

Because his long straight lines are easier to chisel and to hold on this brittle stone. First attempts on 353 and perhaps on the small fragment 355 had demonstrated the difficulty of attaining one's end with the true Upwawet. A pious fraud would substitute for him the easier Ptah, without arousing particular suspicion in the mind of the ignorant Bedouin customer. Did not this "leader of the ways" hold as his symbol what any Bedouin would recognize as the camel-driver's stick—just such a stick as a Bedouin cut from an oleander shrub for the writer in 1907? This is the best solution the writer's mind can find for the problem of 351 and 353. If anyone can find a better, the writer will be happy to accede to him.

NO. 353

After this excursus we may proceed with greater ease of mind to the further difficulties of 353, apparently partly defaced with intention. We shall present this column by column, not knowing whether these are or are not related to one another nor, if they be related, what such relation may be. Column *c* certainly looks in its upper portion like a gross imitation of portions of columns *a* and *b*. Since the lower portion is somewhat different, there may be no connection. The chiseling away of part of the surface may indicate an attempt at correction, or, in part at least, what may be termed a stone palimpsest.

Column *a*¹ of 353 is clear enough to be termed easy. On Grimme's photograph there seems to the writer to stand out fairly clearly what is traced in his drawing. This corresponds not entirely, but fairly well, to Leibovitch and in sufficient measure to Grimme's own curious tracings. We read with a fair degree of confidence:

תנת בנשמש מהב בעלת

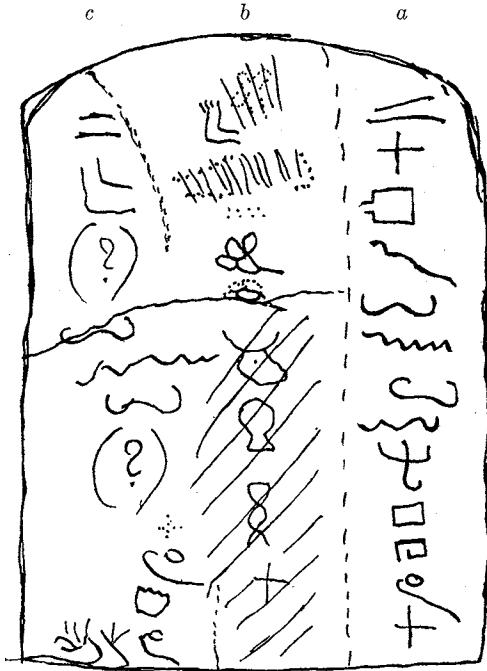
"The gift of Benshemesh, beloved of Ba'lat."

With other things the second *b* is not quite certain. It seems to the writer better than Grimme and Leibovitch. Two *b*'s are found on 351 also, and the close writing of ^c*l* may be characteristic of 353, if we see correctly in another place.

At the top of column *b* is Upwawet, as on 355, partly deleted. The

¹ The columns are numbered 1, 2, and 3, respectively, in the earlier discussion (pp. 16-20).

first legible sign underneath this on 353 is a new one. Allowing for identifications elsewhere, we believe this is the *qaw*, the measuring line, similar to but not the same as the bandage, perhaps sandal thong, *h t l*. It is therefore *q*. A loop of another possible *q* lies along the crack beneath. As well as anything else the puppet-bandage *h* may have



been in the chipped surface above, underneath Upwawet, as in 355. The letters below the crack are sufficiently clear to bring Leibovitch and Grimme close together. We read:

וְהַמְנִיחַ אֶת הַדָּרֶךְ

"The leader of the ways."

Column *c* of 353 is a different matter. At the extreme top we have apparently a crude attempt to repeat something parallel to the top of column *b*. The middle of the column, from the crack downward, seems to repeat signs on about the same level in column *a*. Below are seen

symbols that look on Grimme's photograph as on Leibovitch's tracing like composites, i.e., corrections or palimpsests or a beginner's mistakes. In contrast, the bottom of the column looks curiously competent. Under an unconnected *t*, somewhat doubtful, there follows a pretty clear *c n*. Directly below this is what looks like a bud, identified under 357 as *g*, slanting to the left from which stands *d j*. Together we would have *c n g d j* (ענגדי), Engedi, "the kid's well," which need have nought to do with David's Engedi. Immediately under the *g* stands what looks like a repetition of the *c n* above it; or it may be a simple *l* or perhaps *c l*. Let him who can do better with these scattered, broken signs.

NO. 355

On 355 there are the two *h*'s which have been pointed out, one of which may be a sistrum-puppet in the hands of the god. Hathor's sistrum was known at the Sinai mines (cf. Olmstead, *History of Palestine and Syria*, chap. vii), and the Semites there may not have realized that sistrums were the perquisites of goddesses and not of gods. On the other hand, Allah only may know what they conceived such a swaddled puppet-bundle in the hands of a god to be; perhaps they thought of it as Upwawet's pack thong. In any case it is at this point probably of no alphabetic significance. The *h* under the god has been made use of in the attempt to read 353*b*. The possibility that it might be the initial letter of a name, "Hur," as in 356, has also been left open, together with the further chance that it may be merely a decoration on the seat or throne of the god. Aside from this the fragment contains only two symbols before the god's face. The upper one is pretty clearly *b*, below which may be *n*, which would most naturally be supposed to be *ben*, "son of."



NO. 354

No. 354 cannot easily be represented in a tracing, as Leibovitch's futile double effort indicates. The Petrie photographs published by Grimme show at the top a sprawling *m* and under it what seems best read as *n*. On the fragment which seems to belong under this a series of holes, ending in a fork below, suggest *h*, below which both Grimme and Leibovitch read *t*. From here on we have clear sailing downward with *m h b c l t*. We venture to read:

מנחת מהבטלה

"Votive offering of the beloved of Ba-lat."

On the pitiful left-hand fragment, only an *h* about midway down the column is really clear. As this floats in thin air, we venture no further reading.

NO. 352

The writer is happy to confess that the broken and irregularly lined and spaced slab 352 at first looked hopeless to him. He began with the perfectly clear *b c l t* at the bottom of column 3. Grimme's

photograph supplied sufficient evidence of the *m h b* over this. On the intervening fragment, now lost, Grimme finds in a Petrie photograph a *t*, which is possible in itself, but contrary to all the other evidence on this and other slabs.

At the bottom of 352, column 2, are two *n*'s close together. One of these belonged with the troublesome fish and the signs massed under



it in column 1. One might well belong in column 2; the lower clearly reached out farther to the left. Above the fish there was no trouble in finding column 2. Next above it came *b*, then (in spite of Leibovitch and Grimme) a *š* with *n* crowded over it, over this a very clear *š*, and then, running into the break, a sign which at first seemed to yield a parallel to the *rab naššābīn* previously found. Here it might be *r š*, for *rōš* or *rēš*, "head." Since then this symbol has with great probability been identified as *q*. Then the gap. From the top down we have in succession *m*, *š* (or *ś*), *c*, and the top of a *b* or *r*. An identification

made on 349 leads the writer to prefer *r*.

Again in column 1 of 352, working from known to unknown, we start from the bottom up: *n*, the hand *j*, and the fish *s*, with the thorn bush (*dardar*) *d* and an *n* trailing down to the right. The *d* thus identified works perfectly in the trilateral above this, reading upward *r*, *d*, *n*. Now reading from the top down, we have ² above a chipped space probably unutilized, the very uneven spacing of this stele being due in large measure pretty clearly to the flawed nature of the stone, which presently caused it to break up altogether. Under this comes a *š*, followed by indications of a rounded top which, fitted to the square base below, makes *r*. The writer did not like this initial trilateral, identified last of all, but it is the best and simplest identification he can make. The whole now falls together smoothly into the reading:

אשר נדר סינדן | משער [מקש מצבן | מרחב בעלת

"That which(?) dedicated Siniddin (or 'Sindān') | of Sē'ir, chiseler (or 'draftsman'?) of monument-makers (or 'monuments'), | beloved of Ba'lat."

What the *h t* at the end of a fourth column, of which otherwise only unrecognizably faint traces remain, may stand for, deponent saith not.

The word ^a*šer*, "that which," apparently Hebrew, in these non-Hebraic surroundings looks bad; but its pre-Hebraic history, it may be well to remember, is as yet by no means clear. If one be too greatly displeased with it, he may recall that the plural of ^a*šerah* is masculine, and that it, like the name of the planet Venus, seems to occur in South Arabic in a masculine singular form. The form of the thorn bush *d* is more primitive here than at the end of 353c, where a distinct advance toward the conventionalized form of the South Arabic alphabet appears, as may be the case also in 345. For the rest the writer submits his reading without further annotation to the sagacity of his peers and colleagues.

With this number we end the objective votive inscriptions, i.e., those which name first the object devoted, and proceed to our third class, those inscriptions, votive or otherwise, which after the manner of the irrepressible Theodore Roosevelt begin in all probability with "I."

III

NO. 349

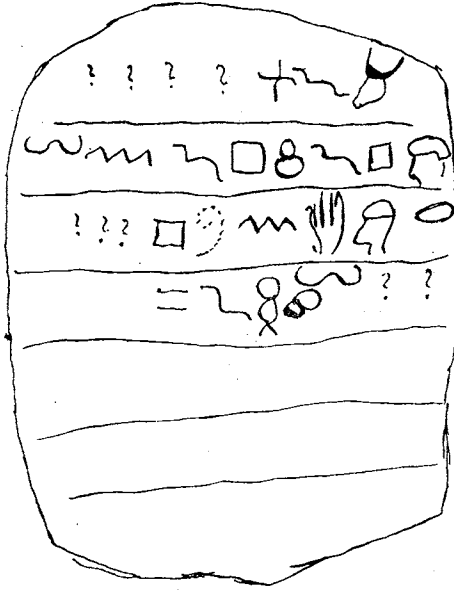
In reading this inscription one must rid one's self completely of Grimme's conception. Grimme's very real contribution to the decipherment of these inscriptions lies elsewhere. Here he, following Flinders Petrie's lead, has caused only confusion. Even Sethe with his Hyksos theory is under the Moses spell. The search for a sense of hostility to Egypt on the part of the writers of these inscriptions is the veil of Moses which lies over the eyes of Butin and Cowley as well. In the simple reading here proposed of what is truly legible on this and on all other hitherto accessible inscriptions there is not the slightest hint of animosity toward Egypt, in fact quite otherwise. The writer has begun here, as elsewhere, with the known, and has proceeded as far as he was able into the unknown. He sees no need of registering on this frightfully eroded stele the scattered symbols of the

last three lines, which he refuses, without better parallels, to attempt to emend. Perfectly clear, and of great importance, are line 2, the best preserved, and more than half of line 3. These read:

רב נצבן משׁ|ער ים לב...

There is nothing to indicate the end of a word on this or almost any other of these inscriptions. So it occurred to the writer to try divid-

ing into words as above. The result is the astonishingly apposite information that the dedicator of this stele is "foreman of monument-makers, from Sē'ir of the Sea (or South)." The uncertain signs that follow in line 3 may indicate dedication "to B[a'lat]."



As to the beginning of line 1, the writer was long disposed to grant Mr. Cowley's reading, as outlined in the criticism of Mr. Cowley's latest work. His own greater experience, gained from the three inscriptions

that follow, and his conferences with his Egyptological colleagues, chiefly Professor Edgerton, made him less and less favorably minded toward that reading. The sign following *ʾn* may easily be the *kāfīs*, the crossed, crooked beam structure used to the present day in Palestine in native dome and vault construction and surely known to miners as shoring in their shafts. This is more probable than the straight *taw* cross, used for brand or signature. Hence we class this inscription with the three that follow under those that begin with *ʾn*, "I." The proper name which must naturally follow between this and the title in line 2 is simply lost. Even if the sign following were clearly recognizable as *z*, which it is not, the problem would not be as insoluble as Mr. Cowley seems to think. Of the South Arabic

trinity we have already met the sun in "Benshemesh" and the moon in "Siniddin (or 'Sindān')." What prevents thinking here of the third member in some such form as *Zhr-jl*, which probably means "Venus is god" and not, as D. Nielsen suggests,¹ "It appears." If one objects that it would be too much to expect these inscriptions to exhibit the complete triad, Sun, Moon, and Venus, there remain other possibilities such as *Zr h* or *Zabibi*.

The only connected trilateral which appears to make sense in what follows legibly after line 3 is in line 4: . . . *š ʔ ʔ* . . . This would suggest a "foul odor," which would be a most natural phenomenon in mines. The inscription may therefore be one of thanks for the dispelling of a foul odor in the past or, less likely, one of prayer that this may be done by Baʿlat in the future. The notion of prayer is the less likely because it occurs clearly on no other example among the few we have. Of course the "foul odor" might turn into something quite different and more simple still, if we could read the context; but we cannot. It is possible, e.g., that the *n* of *š hn* may belong with the following fairly clear *z*, and that the hole following may hold the remnants of an *r*. This, with the possible alternative reading of 345*a*, would furnish added evidence for a twofold form of the word "devote" or "dedicate" in these inscriptions: *nzr* here and possibly in 345*a*, and *ndr* in 352. That such double usage should occur among the motley groups of miners on Sinai, one of whom seems to bear an East Semitic name, would be by no means astonishing. With no *dh* in evidence, it would not be amazing if two of these early alphabetic writers spelt differently, one with *z*, one with *d*; no Wilhelm Rex nor Caxton had yet fixed for all time the orthography. It is, however, worth noting that with the simple readings here proposed the evidence for the parallel lines of *z* has dwindled; compared with actual occurrence in language it had been much too frequently found before.

NO. 350

This mass of fragments offers little safe reading. It begins with *ʔ n*, therefore probably "I." The next letter is not *k*, as the writer once thought, but quite clearly a somewhat fanciful version of the later form of *j* as found at the end of 353*c* and on the Gezer fragment—

¹ *Handbuch der altarabischen Altertumskunde*, I (Kopenhagen, 1927), 223.

a version more conventionalized and more usable on stone than the particularly clear form on 349 and those somewhat less clear on 346a



appears to have been a column 4.

NO. 356

After what has gone before, this offers an easy problem.

אֶתְּ הִר בֶּן [....] בְּהַבְלַת

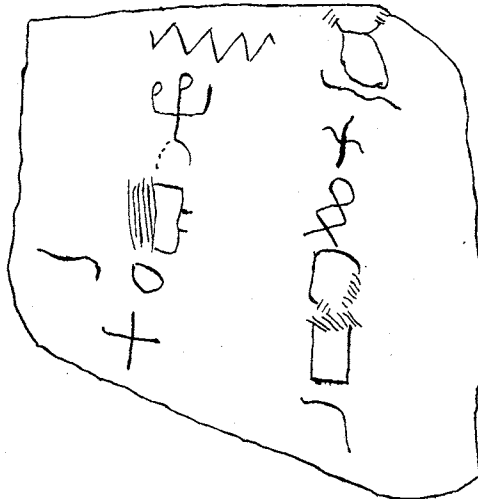
"I am Hur, son of, beloved of Ba'lat."

and 352, the last of which easily became a mere hole in the stone. After this come a clear š, one lost letter, part of what may be a *b* or *r*, a clear *t*, and an unidentifiable fragment. From these remnants it is scarcely safe to construct a proper name. The epithet *n š b* is clear. At the top of column 2 follows the inevitable *m ḥ b* [*l* or *b l*] *t*. The *ḥ n* for "I" is South Arabic, as against the Northwest Semitic *ḥ n k* elsewhere. Or may the following *j* belong to the pronoun here? We read:

אֶתְּ יִשְׁבַּ (or) תְּ.נִצַּב | בְּהַבְלַת

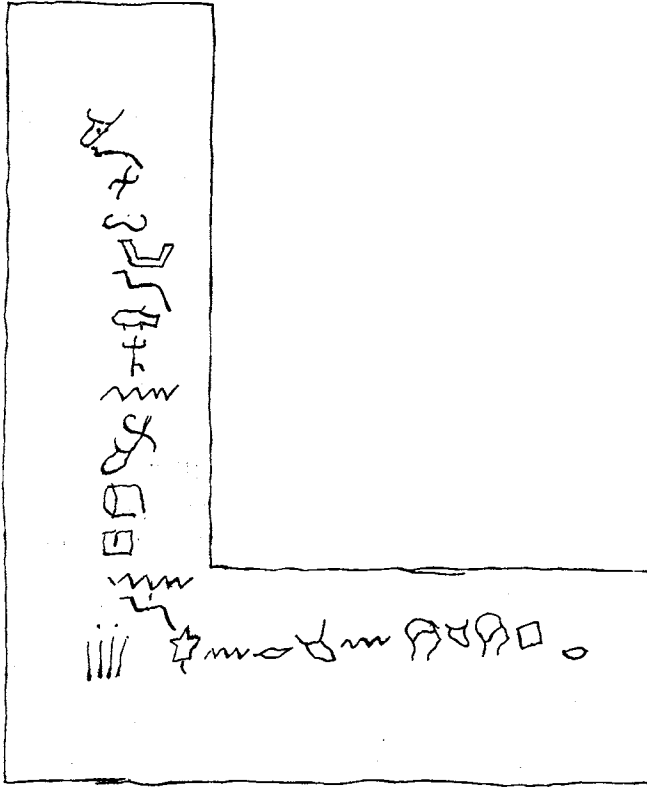
"I am *J š. b* (or *r*) *t*., monument-maker, beloved of Ba'lat."

Column 3 seems to have borne a Pharaoh's name in Egyptian; and there



NO. 357

Inscription 357, from within a mine shaft, was a real test of the new simple readings. It threatened all sorts of dire possibilities. Looking as ever to the known, the writer found nk at the beginning, but nothing very promising to go on with. So he tried the end, where the



Hjelt photograph and Leibovitch's drawing clearly suggested rbc . This corresponded well with the four strokes at the left end of this horizontal line. Before rbc stood a good Semitic trilateral, mr . Preceding this was m , preceded by an unidentified sign. What was this? A flower calyx, gāb^{c} , $\text{gib}^{\text{c}}\text{öl}$; therefore g . In Arabic gm^{c} made no good sense; but Aramaic gm^{c} , Canaanite gm^{s} , "mine shaft," fitted like a glove. Running upward horizontally, the words mn and (above this) rb were easy. Starting from the top down, after nk , "I," came a

š, then an unknown character. What was this? Why, *pēah*, “corner, redoubt,” Pharaoh’s boundary against the desert. The word *š p n*, composed of these letters and the *n* below them, might be a proper name; but it means also “badger,” i.e., “digger, burrower, miner.” The actual proper name following now falls easily into line: *s h m l t*. And so we read what fits the locality beautifully:

אנך שפן סהמילת רב בן גמז אמר ארבע

“I am the miner Sahmilat, foreman, of mineshaft No. 4.”

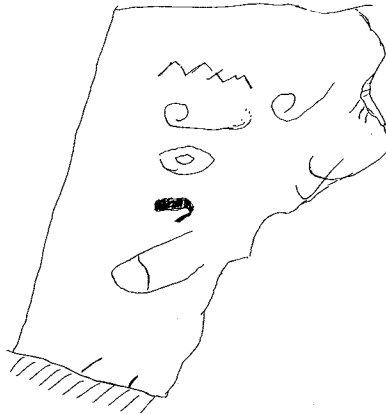
If the translation “number” for אמר (“matter, affair” in Job 22:28) be too violent for a philologist, let him try *šmēr* or *šmār* and read “foreman, of the mine shaft, commander of four (or, with Grimme, ‘forty’).” It should be said here that this reading was completed and laid before my colleagues some days before any of us looked at Breasted, *History of Egypt* (2d ed., New York, 1912), pages 190–91.¹

IV

What follows must be classed at present as flotsam and jetsam, though some of it is highly important.

NO. 358 (COWLEY’S 358 AND 359)

As the writer now sees it, Butin, Cowley (358), and Grimme have turned this inscription upside down. With Cowley (359) and Leibo-



vitch, he would turn it as shown here. This is a mere fragment of a tablet which broke in the attempt to chisel it out of the rock wall.

¹ Cited below, pp. 47–48.

The sprawling symbols may in part be read as previously, without attempting to find new material in this sorry fragment:

... מַשְׁעִיר | ... לֵה ?
 "... from Sē-ir ..."

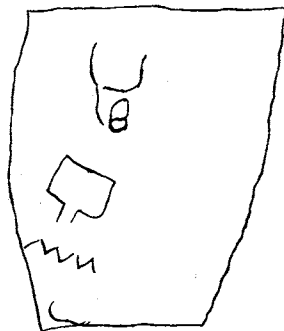
NO. 359 (COWLEY'S 360)

Another sorry fragment which can be read in various ways. The upper symbol as ρ does not look too well. A clearer view may find other things there. Meanwhile we venture

נָצַב מִשְׁ[עִיר] ?

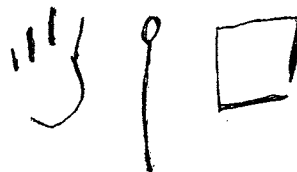
"... monument-maker from S[ē-ir]"

After this there remain to be taken up only what has so far been published of a little Gezer potsherd and of new finds at Sinai.



GEZER POTSHERD¹

The inscription is not old Hebrew and cannot be so read. It is clearly Sinaitic-Se'irite and reads ... בֶן י, "Son of J." It is a precious fragment of pre-Hebrew civilization, for which Hebrew infiltration proved so desperately destructive (cf. the book of Joshua and the archeological evidence). But one other fragment of this kind is known—the Lachish or Eglon pottery fragment on which is incised the name "Belac."²



LATEST SINAI DISCOVERIES

A few new fragments are published by Father A. Barrois in *Revue biblique*, XXXIX (1930), as an adjunct to his excellent article, "Aux mines du Sinaï," on its pages 578-98. No. 1 on his Plate XXVI reads pretty clearly in the column at right. $\text{š } b(?) \text{ n } m^{\rho} \text{ h(or } h\text{)}$. The middle column is unintelligible to the writer from the photograph;

¹ Published by W. R. Taylor in *Journal of the Palestine Oriental Society*, X (1930), 17 and 79-81, with facsimile on Pl. I following p. 22.

² For this see Albright's masterly article in *Archiv für Orientforschung*, V (1929), 150-52.

the left-hand column is clearly *t b c l t*, i.e., “. . . . of Ba^clat.” One wonders whether the massive figure which is all that appears clearly in the middle column, to the left of the doubtful *b*, is intended for *j*, which was difficult to cut. In default of more context the writer prefers to leave the matter in abeyance. There are clearly other possibilities. No. 2 has no visible inscription, but is an interesting head, which the writer gladly leaves to the anthropologists and ethnologists.

No. 3 shows a curious relationship to 351 and 353, which have been dealt with in detail above. The photograph, in halftone reproduction, is neither large enough nor throughout its whole extent clear enough to permit complete reading. In about the middle of the column farthest to the left (nearest the bottom as placed on the plate) one can make out a straggling *š* over *n*, floating without relation to all else in space. The middle column seems to begin much lower down than the one to the right and seems to read *z t m t(?)t(?)*, which might be *zōt mattāt*: “This is the gift of.” The second *t* is uncertain and may be a *k* or *d*. The third *t* is even more uncertain, as is the question whether anything followed farther down. In column 1 we see . . . *š r(?) b š n m š*. Following the clearer ductus of 353, we have read this name on 351 with the same curious transposition of *n* and *š* as “Benshemesh.” Was such an inversion actual on the tongues of some of this motley group of West Semitic miners? Or is there no transposition, and must we read puzzlingly otherwise? The beginning, if the reading *r* is right, reminds curiously of the beginning of 352.

On No. 4, a new statuette in more Egyptian style with a Hathor figure on the front, the traces clearly indicate Egyptian hieroglyphs, though their exact details are so hidden in shadows or highlights as to make any confidence in reading impossible.

THE BACKGROUND OF THE SINAI INSCRIPTIONS AND OF THEIR SCRIPT

THE DATE OF THE INSCRIPTIONS

Two very strong indications for the date of these inscriptions have been brought forward by Sethe:¹ The form of Ptah on 351 and the casual change of position of symbols such as the eye, head, etc., place them in the Middle Kingdom, 20th and 19th centuries B.C. Without knowledge of their simple content Sethe then is misled into giving the idea of Moses and the Hyksos quite erroneous significance in the dating of these screeds and the interpretation of their place in the history of human alphabetic writing. As now simply read, there is no religious fanaticism and no faintest trace of hostility to Egypt on these stones. In looking farther for indications of date, the writer came upon a statement written about Amenemhet III's activities in Sinai by his honored chief, Professor Breasted.² This extremely important passage, written without any knowledge of the Sinai inscriptions, as on the other hand their solution above given was made without any reference to it, deserves to be quoted here in full:

A number of peaceful enterprises for the prosperity of the country and the increase of the royal revenues were successfully undertaken by Amenemhet III. While operations in the mines of Sinai had been resumed as early as the reign of Sesostri I, the foreign projects of the dynasty had elsewhere quite surpassed their achievements here. It remained for Amenemhet III to develop the equipment of the stations in the peninsula, so that they might become more permanent than the mere camp of an expedition while working the mines for a few months. These expeditions suffered great hardships and an official of the time describes the difficulties which beset him when some unlucky chance had decreed that he should arrive there in summer. He says that "although it was not the season for going to this Mine-Land," he went without flinching, and in spite of the fact that "the highlands are hot in summer and the mountains brand the skin," he encouraged his workmen who complained of "this evil summer season," and having accomplished the work brought back more than had been required of him. *He left a stela³ there telling*

¹ *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, LXXX (1926), 40.

² *History of Egypt* (2d ed.; New York, 1912), pp. 190-91.

³ Breasted, *Ancient Records*, I, §§ 733-38

of his experience and encouraging those of his posterity who might find themselves in a similar predicament.¹ Under such conditions permanent wells and cisterns, barracks for the workmen, houses for the directing officials, and fortifications against the marauding Bedouin were indispensable. While some of these things may have been already furnished by his predecessors, Amenemhet III made the station at Sarbut el-Khadem a well equipped colony for the exploitation of the mineral wealth of the mountains. He excavated a large cistern in the rocks and opened it with festival celebrations in his forty-fourth year.² A temple for the local Hathor was erected, and we find an official of the treasury journeying thither with offerings by water, a fact which shows that the Gulf of Suez was commonly utilized to avoid the wearisome desert journey.³ *The mine(shaft)s were placed each under charge of a foreman, after whom it was named*, and at periodic visits of the treasury officials a fixed amount of ore was expected from each mine.⁴ The occasional raids of the neighbouring Bedouin were doubtless of little consequence in view of the troops still controlled by the "treasurer of the god," who could easily disperse the plundering bands that might venture too close to the colony. Here Egyptians died and were buried in the burning valley with all the equipment customary at home, and the ruins still surviving show that what had before been but an intermittent and occasional effort had now become a permanent and uninterrupted industry, contributing a fixed annual amount to the royal treasury.

In Professor Breasted's vivid description we find Egyptians working intensively, building forts and temples, having steles made—and naming mine shafts after their foremen. This is exactly what is done in 357. The description fits the general indications of these inscriptions, as now solved, like a glove. The work most recently done on Sinai, as briefly sketched by Father Barrois, shows further that this intensive Egyptian work begins with Sesostri III, who reigned 1887–1849 B.C. Under him it is recurrent annually, but not yet continuous and permanent. Despite Father Barrois, it seems to arrive at a high point of intensity and uninterrupted continuity of some sort in the reign of Amenemhet III, 1849–1801 B.C. After this the cessation of Egyptian interest in this region, associated with the weakening of the government at home, is as rapid and as complete as was its rise to the zenith of effectiveness.

¹ The italics in this quotation are those of the present writer.

² *Ibid.*, §§ 725–27.

³ *Ibid.*, §§ 717–18; similar offerings *ibid.*, § 738.

⁴ *Ibid.*, § 731.

We have here a half-century, or at the most three-quarters, in which an Egypt at the height of its power, using Ptah figures like that on Sinai, setting upright its naturally horizontal signs, is in close, friendly commercial contact with Sinai and the Semitic peoples of its vicinity. We find mentioned in Egyptian sources foremen who are honored and treated with royal courtesy; and we have in these inscriptions foremen of mine shafts and of stele-makers, along with stele-chiselers or draftsmen who proudly proclaim the position and title conferred upon them.

These same foremen blossom forth as the very men interested in writing down their names and their simple vows of gratitude to their natural deities. The alphabet in which they write is acrophonic beyond the shadow of a doubt, like the Egyptian; and they use in part the Egyptian symbols, but in one instance only (*h*, *h*) has their symbol a value analogous to the Egyptian. For the rest their symbols mark the initials of Semitic words, chiefly the names of objects naturally known to such men in such a place: *ʔ*, *ʔalf*, ox (head); *b*, *bēth*, house; *g*, *gabīʕ*, calyx; *d*, *dardar*, thorn bush; *h* (perhaps in part *h*), *hallēl*, the hallelujah manikin; *w*, *wāw*, nail, peg (perhaps with eye to hang things on); *z*(?), *zaza* (or *zajin*), sticks;¹ *h* (perhaps in part also *h*), the *h t l*, swaddled puppet or bundle for a pack to be carried on the back; *j*, *jad*, hand; *k*, the *kāfīs*-frame; *l*, the *lajjah*, a simple loop of rope, later in settled territory equated with *lāmed*, the crooked oxgoad; *m*, *majīm*, water; *n*, *naḥaš*, snake; *s*, *samak*, fish; *ʕ*, *ʕain*, eye; *p*, *pēʔah*, corner, redoubt; *š*, *šammīm*, snare, or *šʕrōr*, the Bedouin's pouch; *q*, *qāw*, measuring line in loops; *š* (and *š*), the Egyptian mountainous horizon, which looked to the Semite like a camel's tooth, *šin*; *t*, *tāw*, the cross with which a man branded his beasts and, if illiterate, made his mark on his contract.

How did the Semites of Sinai arrive at the idea of an alphabet? The probable course of events at the very origin of truly and purely alphabetic writing in the march of humanity's culture is not difficult to imagine with a high degree of probability. The Egyptians had with them at least one scribe, probably at the height of activity a goodly number of them. For purposes of record scribes of lower rank would come into frequent contact with the native foremen. As the

¹ Cowley in *JEA*, XV (1929), 202, n. 1.

foremen rose in dignity, one of them would feel the need of keeping a written record for himself, a method better than the simple notch on a tally stick or dependence on treacherous memory. On a holiday or idle afternoon he would talk with a friendly sub-scribe and learn the easy principle, as an Anatolian foreman on a Chicago dig in inner Turkey learned in one forenoon to set up and manipulate faultlessly a transit, which it takes engineering students several weeks in school to master, and as a simple Turkish night watchman in two afternoons learned from one of our subordinates to read and after a fashion to write in the new Turkish alphabet.

Whether this foreman on Sinai was learning hieroglyphic or hieratic forms did not much bother either the pupil's or the teacher's head; the water sign is clearly hieroglyphic. Happily, too, for the alphabetic peace and prosperity of humanity, the clever fellow was too ignorant to master the entire intricacy of the Egyptian system. This remained the proud possession and mark of superiority of Egyptian scribes for many centuries more. Meantime, clearly with ink and reed pen-brush, the foreman on Sinai developed his signs and used them in keeping his records. Presently it occurred to him that he might use them on stone also, as the Egyptians did, and that a profitable little bootlegging business in *maṣṣēbah*'s might be done on the side. Thus the new alphabet was put on stone. Difficulties with the fine ridges marking fingers of the hollow hand, with the fine lines of soil and thornbush, etc., led to modification and simplification of some of the signs. Such, in brief, seems to the writer to be the story of the rise of purely alphabetic writing in the world. For it we can find no better space of time and need no longer period than the roughly fifty years of the reign of Amenemhet III, about 1850–1800 B.C. That that period fits this historic event perfectly, better than any other, the later development of alphabetic writing will presently go far to demonstrate.

THE SEMITIC PEOPLE OF THE INSCRIPTIONS

Who were the people to whom credit must be given for this invention, which rivals in importance anything that Michelson and Einstein have done? In the new, simple solution, made without reference to this question, its answer stands out with perfect clarity. In the first place we need not with Grimme drag enslaved peoples from Egypt,

nor with Cowley hypothetical Negebites from Palestine, to Sinai. The date now fixed is far too early for Moses or for anything that can safely be identified with the agglomerations that appear much later under the names of Israel and Judah. Anyway, by the testimony of his own people in the books named for him, it is preposterous to seek in Moses the inventor of alphabetic writing. Learned as he may have been in the magic lore of Egypt, he was so utterly analphabetic that when he found such writing on stone tables it appeared to him to have been done by the finger of a deity; and, according as this deity enraged or overawed him, he smashed these tables or carried them about in a box as fetishes. His people Israel, as their own books of Joshua and Judges, borne out by archeological evidence, testify, continued the general destructive policy of the illiterate barbarian to a far later time. They did not learn to appreciate this glorious gift of the gods, this splendid achievement of human genius, enough to adopt and use it, until it had been fully developed, modified, and perfected by others for more than half a millennium.

About the people who here enjoy a brief half-century of astonishing prosperity under Egyptian dominance in their desert habitat we may safely deduce from these few contemporary documents of theirs a very few, but salient and important, facts. They live in Se'ir, the country between the Dead Sea and the Red, the country later made famous once again in a similar situation by Thamudeans and Nabateans, the country whence Lawrence drew some of his fiercest and most clever men. In default of a better term, why shall we not call these folk Se'irites, their language Se'irite?

And what is their language? This question is properly put here, after, not before, the solution of its reading. Placed here, we see that it is, except possibly for one single proper name and one element of an Egyptian god's name, West Semitic. Nothing clearly Amorite appears in the thirty-seven words that constitute the complete vocabulary of the stones, if we separate proper names into their component parts. Of these words all but five or six may be found in that composite tongue which we know under the name of Old Testament Hebrew. One word only, *šer*, if it be indeed a relative pronoun, is specifically Hebrew, though we know little or nothing of its prehistory. The major part belongs rather to the Canaanite-Phoenician base of

what we call Hebrew. One proper name, *Sahmilāt*, is definitely South Arabic in its elements. One pronominal form, *ʿan(ā)*, is South Arabic and perhaps Aramaic rather than Canaanite. One word, *g m ʿ*, "the mine shaft," is Aramaic more than anything else. Everything in this little list points to the fact that we have, foregrounding here to the feast of prosperity provided by a rise in Egypt's fortunes in Se'ir and Sinai, the agglomeration of Semitic peoples that formed the wave which pushed forth out of this cradle of Semitic humanity following the Akkadian-Amorite wave. It preceded by about half a millennium the disorder and dislodgment that created Israel and Judah.

This is borne out by the slight evidence these Semites left of their religion. Twelve or thirteen times in these few lines they attest their belovedness by Ba'lat, an abomination which Israel spent centuries in stamping out, a fact which the studies of my friend and colleague, Dr. W. C. Graham, are even now elaborating. In contrast to Israel they seem quite ready to adopt and adapt to their own use their conception of an Egyptian deity, a composite Ptah-Upwawet, just as they give to their Ba'lat a form expressing their conception of an Egyptian sphinx. The gods found in their proper names are the Sun, the Moon, and perhaps Venus, the morning-evening star—the age-old triad of the Arabian desert clime. *Lāt* or *Ilāt*, the goddess par excellence, "Alilat" in Herodotus, is Arab, but not Hebrew, whatever these peoples' conception of her may have been.

The whole jolly, happy-go-lucky spirit of the religion manifested is the exact opposite of Hebrew. There is clearly no Moses nor Aaron nor Joshua here. Hur is here, indeed—the same Hur whom a mid-Victorian American novelist made distinctively Hebrew. Not so the Hebrews themselves. They make him Moses' slave and body servant, a man without a father,¹ just as, oddly, on these stones his father's name is lost. Where they finally do give him a father,² that father is Caleb. Now Caleb was indeed adopted into the honored Jewish-Israelite ancestry, but originally he is pretty clearly a "dog" (of an Edomite?). For the rest the older Hebrews know Hur as a king of Midian (= Se'ir) whom Moses killed.³ The Se'irites would surely have felt be-

¹ Cf. Exod. 17:10, 12; 24:14.

² Cf. I Chron. 2:18-19 and 50 with his rise in esteem *ibid.* 4:1-4.

³ Num. 31:8 and Josh. 13:21.

tween their own naïve religion and what they must have considered the sinister seriousness of Moses and his law as great a contrast as did the pre-Islamic Arabs between the joyous abandon of their feasts and the uncomfortable seriousness of Muhammad's religion.

Date, location, language, and religion all point not to Moses and Israel, but to the start of the great Semitic migration that preceded the Israelite by some five hundred years. Here is an indication, clearer than usual, of what might produce such migrations, what lines they would easily follow, and what would be their result. Here is a gathering of clans in Seir to fleshpots mysteriously set forth by Egypt on Sinai, then a dislocation of these clans by as mysterious and sudden a drop in the Egyptian fleshpot market; and presently there appear in Palestine and Lower Syria a Canaanite-Phoenician horde, in North Syria and on the desert border of Babylon wandering Arameans ready to settle down, and by the pot of gold at the end of the rainbow in South Arabia Mineans to cultivate the land and also to trade in myrrh and incense, gold and ivory. For the rest the story is best told as

THE STORY OF THE ALPHABET

With the Sinai alphabetic symbols now determined, it will be best to show them in a table side by side with the South Arabic and with the Canaanite-Phoenician development. With this display but few notes will be necessary to convince the reasonable that both are independent, direct descendants from the Se'irite script of Sinai.

Aside from its late derivative, Abyssinian-Ethiopic, we possess remnants of South Arabic writing in inscriptions cut on stone only. That this should have been the only form in which the clever, enterprising, and presently highly cultured merchants of South Arabia used their writing is incredible. Nevertheless, of its oldest, truly South Arabic or Minean form, that is all that is left to us as far as is yet known. Chronological facts preclude all possibility of taking seriously Grimme's assumption that the late forms of Thamudic, Lihyanic, and Safatenic exhibit intermediary forms nearer to the Sinaitic Se'irite. All this South Arabic writing in the northern half of Arabia to the very northern frontier of the Syrian Desert is clearly secondary, derived, returned from South Arabia. The gentler curves, the serpentine character of long lines in these northern descendants, are due in part at least to lesser skill and cruder cutting instruments in the hands of the northerners. In part, however, it may be that we have in these curved lines some evidence for a more fluid, ink-drawn writing which their southern masters and teachers were wont to use. Be that as it may, the southern characters, as we have them indelibly registered on stone, when placed side by side with their Se'irite forbears show unmistakably the lineaments of their origin. Taking into account the harder surface of the stone in which they are cut, their lapidary character is sufficient to explain their straightness or pure circularity (or semi-circular curve) of line, their rectangularity of form, their upright, propped-up (*musnad*) posture.

Beyond this one needs little imagination to see how other minor differences arose. The line of the *w* crept into its hole, while the wrist of the *j* (hand) remained outside. An extra line is used to help distinguish *m* from *š*. The salient of Egypt's fort on Sinai becomes the

Massoretic O.T.	Minean- So. Arabic	Se'irite-Sinaitic	Canaanite- Phoenician	Ras Shamra Cuneiform
1 א	𐤀	𐤀 𐤁	𐤀 𐤁	𐤀 𐤁
2 ב	𐤁	𐤁 𐤂 𐤃	𐤂 𐤂	𐤂
3 ג	𐤂	𐤂	𐤂	𐤂
4 ד	𐤃	𐤃 𐤄 𐤅	𐤃 𐤃	𐤃
5 ה	𐤄 𐤅	𐤄	𐤄 𐤅	𐤄
6 ו	𐤅	𐤅	𐤅	𐤅
7 ז	𐤆	𐤆 (?)	𐤆 𐤇	𐤆
8 ח	𐤇 𐤈 𐤉	𐤇 𐤈	𐤇 𐤈	𐤇 𐤈
9 ט	𐤉	𐤉 𐤊	𐤉	𐤉
10 י	𐤊	𐤊	𐤊 𐤋 𐤌	𐤊
11 י	𐤊	𐤊 𐤋 𐤌	𐤊 𐤋	𐤊
12 י	𐤋	𐤋	𐤋 𐤌	𐤋
13 י	𐤌	𐤌	𐤌 𐤍	𐤌
14 י	𐤍	𐤍 𐤎	𐤍 𐤎	𐤍
15 י	𐤎	𐤎 𐤏	𐤎 𐤏	𐤎
16 י	𐤏	𐤏	𐤏 𐤐 𐤑	𐤏
17 י	𐤐 𐤑	𐤐 𐤑	𐤐 𐤑 𐤒	𐤐
18 י	𐤑	𐤑	𐤑 𐤒 𐤓	𐤑
19 י	𐤒 𐤓	𐤒 𐤓 𐤔	𐤒	𐤒
20 י	𐤓 𐤔	𐤓	𐤓	𐤓 𐤔
21 י	𐤔	𐤔	𐤔	𐤔

outline of the complete city or castle wall or terraced plot of South Arabia. The signs, omitted above, which the more refined phonetic usage and perceptions of the cultured gentlemen of Yemen added as they went along are clearly derivative: *dh* from *d*; *h* and *ḥ* differentiated (both shown in table); *z* from *ṣ*. The characters for *th*, *ḏ*, *t*, and *gh* seem to be their own inventions, very simple, in no instance passing outside the lines and forms employed for the signs they had brought with them. Their *t* (with its fellow *ḏ*) is sufficiently different from that of the Canaanite-Phoenician to make it probable that the Se'irites did not distinguish this sound by a separate sign. Indeed, it is not found on the few monuments made public at the moment of this present writing. Whether the rectangular symbols of an earlier cuneiform, e.g., of Hammurabi's time, had any influence on the South Arabic development, the writer is not in a position to say. The assumption of such an influence is not necessary for a thoroughly satisfactory explanation of this development.

Quite different is the case of the northern Canaanite-Phoenician type of alphabetic writing. In our table the Canaanite-Phoenician symbols of an older type, as usually given from the Moabite Stone and later documents, have been eked out by examples from the Ḥīrām inscription (13th century B.C. or a little later),¹ the Gezer calendar (9th or 10th century B.C.),² and the ostraka of Ahab's time (nearer 865 than 722 B.C.).³

Two characteristics stand boldly forth in all the earlier known forms of these alphabetic symbols. First, as is quite natural consider-

¹ First published by René Dussaud, "Les inscriptions phéniciennes du tombeau d'Ḥīrām, roi de Byblos," *Syria*, V (1924), 135-57. See also C. C. Torrey in *Journal of the American Oriental Society*, XLV (1925), 269-79. The tomb find as a whole, with further bibliography, is described by Pierre Montet, *Byblos et l'Égypte: Quatre campagnes de fouilles à Gebeil, 1921-1922-1923-1924* (Paris, 1928-29), pp. 215-38. The bearing of the Ḥīrām script upon the history of the alphabet is taken into account both there and in Dussaud's further discussion of the find in *Syria*, XI (1930), 179-87.

Another early Phoenician inscription, that of King Yehimilk of Byblos, found in 1929, is published by Maurice Dunand in *Revue biblique*, XXXIX (1930), 321-31.

² Palestine Exploration Fund, *Quarterly Statement*, 1909, pp. 26-34, with plate facing p. 28.

³ Cf. *Harvard Excavations at Samaria, 1908-1910*, I (1924), 227-46.

ing the evidence of the Amarna letters, the writers of this region were until a relatively late date habituated to the later cuneiform with its characteristic triangles and its massing of parallel lines. A glance down our Canaanite-Phoenician column will show that, if we allow for the triangular cuneiform habit, the development of a fair number of these symbols from the Se'irite symbols of Sinai can readily be seen, e.g., Nos. 1, 2, 4, 19, and perhaps also 3, 9, 17, and 20. The massing of parallel lines to suggest outline in place of the outline itself is particularly clear in the fishbone form of No. 14, which replaces the outlined fish. It is quite as apparent in Nos. 5 and 8, and pretty clearly had some influence on 9 and perhaps 20 as well. That this assumption is not a mere airy hypothesis is demonstrated by the Ras Shamra tablets, which turn the Se'irite alphabet into actual cuneiform. On these tablets the writer has had the help of two kind friends and colleagues. Professor A. T. Olmstead urged him to include them in this study and kindly consented to contribute the statement here incorporated, which gives the results of his work upon them. Professor Edward Chiera has given valuable time and the use of his expert knowledge and technical skill in cuneiform in reproducing the Ras Shamra symbols in our table.

EXCURSUS ON THE CUNEIFORM ALPHABET OF RAS SHAMRA AND ITS RELATION TO THE SINAITIC INSCRIPTIONS

BY A. T. OLMSTEAD

Tablets of clay with cuneiform writing have been recovered in excavations by F. A. Schaeffer at Ras Shamra on the North Syrian coast. Two were letters of the familiar Amarna type; others were syllabaries, likewise in the Akkadian language. Interesting as they were, their interest paled before forty-eight tablets or fragments in an unknown character. Photographs of four tablets and careful hand copies of the entire series were published by the veteran Assyriologist Virolleaud.¹

At the very first glance, certain conclusions were justified. The new script was alphabetic. The restricted number of signs suggested a Semitic script. It was clear that the characters had not been borrowed from those of the Akkadian; at most the use of the clay tablet and of the stylus which produced the cuneiform signs might be considered imitation. The new alphabet had not

¹ On the excavations, see F. A. Schaeffer, with note by R. Dussaud, in *Syria*, X (1929), 285-303. For the tablets, see Charles Virolleaud, *ibid.*, pp. 304-10. Other finds of similar tablets have since been reported. *Illustrated London News*, Nov. 29, 1930, pp. 968-72.

been produced by arbitrary selection of wedge elements, one horizontal wedge, two horizontal wedges, and the like, in a regular series. There remained only one plausible supposition, that these characters represented an attempt to imitate a more primitive Semitic alphabet, already employed on papyrus and stone, by men who were more accustomed to the cuneiform script and who preferred the more durable clay tablet. Since the find was associated with Cypriote objects of late Mycenaean date, it was natural to seek the prototypes in the slightly earlier Phoenician alphabet as known from the famous Ahirom inscription. The search was a failure and the investigation came to a pause.

Meanwhile Bauer and Dhorme had independently carried on the decipherment from a quite different angle and with conspicuous success. With the exception of three or four of the less frequent of the twenty-seven characters and of a few apparent variants, the value of the signs may be considered established. They were also able to read with certainty words and phrases and to prove beyond doubt that the tablets were written in good Phoenician, for all practical purposes an earlier dialect of the biblical Hebrew.¹

Professor Sprengling's work on the Sinaitic inscriptions brought the question of the origin of these cuneiform alphabetic signs once more to the fore. Comparison with his list of characters showed evident similarities, while less obvious changes could easily be explained in the light of the treatment accorded by the Shumerians when they changed the ancient linear script to the more convenient cuneiform. The relationship of the new script to the Sinaitic can best be realized by taking the characters in order.

Aleph.—The Sinaitic ox head was too complicated to represent adequately by the stylus. The two horizontal wedges transliterated by Bauer as ρ offer an example of extreme conventionalization; but the primitive ox head seems better represented by his ρ , three parallel horizontal wedges close together with a short vertical stroke below.

Beth.—The Sinaitic house with one wall partly open is repeated as exactly as possible by the two horizontal wedges with the two vertical wedges above. Examination of the table will show better than any description the striking similarity.

Gimel.—The Sinaitic upright calyx was conventionalized into a single upright wedge.

¹ Hans Bauer in *Forschungen und Fortschritte*, VI (1930), 306-7; *Entzifferung der Keilschrifttafeln von Ras Schamra* (Halle, 1930); "Zum Alphabet von Ras Schamra," *Orientalistische Literaturzeitung*, XXXIII (1930), 1062-63; "Ein kanaänisches Alphabet in Keilschrift," *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, LXXXIV (N.F., IX, 1930), 251-54. P. Dhorme, "Un nouvel alphabet sémitique," *Revue biblique*, XXXIX (1930), 571-77. The inscriptions are now being studied by the staff of the Oriental Institute by the methods employed in the preparation of its Assyrian Dictionary. [While this study was passing through the press, there appeared Dhorme's article in *Revue biblique*, XL (1931), 32-56, with an excellent though tentative decipherment.]

Daleth.—Professor Sprengling has shown that the Sinaitic *daleth* consisted of two long horizontal lines above which are three short lines placed fanwise. The inventor of the Ras Shamra alphabet has preserved the three lines, but has straightened them as more easy to write on a tablet, and for the same reason has turned the long horizontal lines into three consecutive horizontal wedges. Perhaps, too, he broke his horizontal line into three to correspond to the three vertical wedges.

He.—The essential part of the Sinaitic "hallelujah man" was the three lines representing the head and uplifted hands. These three lines are retained in the Ras Shamra script, but are turned on the side, exactly as the early Shumerian linear was turned on its side in the later cuneiform. The same three lines, with an added stroke to the side, appear in the early Phoenician of the Ahirom inscription.

Waw.—The Sinaitic *waw* is reproduced as accurately as possible in the cuneiform. Two horizontal wedges, one above the other, represent the open semicircle; the two continuing wedges give the handle.

Zayin.—Sinaitic *zayin* appears to be two parallel lines, the "two twigs" of its name, although neither the vertical nor the horizontal *zayin* is as certain as we could wish. The cuneiform gives two vertical wedges, which Bauer interprets as *z* (*z*). This may indicate that the writers of the Ras Shamra tablets did not feel the necessity of distinguishing the two sounds. The similar failure of Akkadian writers to distinguish between *zayin* and *šadhe* is only too familiar to Assyriologists. [Dhorme now confines the value to *šadhe*, while *zayin* is represented by the Aramaizing *daleth*.]

Heth.—Sinaitic *heth* is the one character which has been taken from an Egyptian sign of similar acrophonic value. It would appear that the inventor of the Ras Shamra alphabet differentiated the two original *heth* sounds, the *h* and the *h*, which were still differentiated in pronunciation by the Hebrews almost to the Christian era, as the Septuagint transliteration proves. The two or three loops of the upright Sinaitic sign are reproduced as closely as possible by the three small vertical wedges, one above another, of the sign identified with *h*. A sign quite different at first appearance was invented for *h*; but when it is compared with the Sinaitic sign in the table, the fact that it too has been evolved from the Sinaitic sign should be evident. [Dhorme now identifies the sign formerly read by him as *šadhe* with a third *heth*, which he transliterates *h*.]

Teth.—This sign has not been identified in the Sinaitic and is not absolutely certain in the Ras Shamra tablets. It may therefore be left out of the discussion. [The *teth* as now identified in the Ras Shamra tablets by Dhorme may be considered certain.]

Yodh.—Sinaitic *yodh* is the hand, soon conventionalized to three vertical strokes above and a rounding tail below. Turned on its side, the three strokes were preserved as three small wedges, one above another, while the rounding

tail was broken up into a duplicate group of three more wedges by the side of the first.

Kaph.—Sinaitic *kaph* was a vertical stroke cut in the middle by a curved line. It was not too well represented in the cuneiform by two parallel horizontal wedges followed by one.

Lamedh.—The rounding *lamedh* could not be represented in cuneiform; so the sign was broken up, somewhat as the rounding tail of the *yodh* had been, into three parallel vertical wedges, only the first of which corresponded to the beginning of the original sign.

Mem.—The zigzag water line of the Egyptian, copied by the Sinaitic inventor, was naturally difficult to imitate in cuneiform. Only two of the wedges, one horizontal and one vertical, were retained.

Nun.—The long curved Sinaitic snake was equally difficult to imitate. As in the case of the long curved tail of the *yodh* and the long curved *lamedh*, the linear sign was broken into three wedges, but this time they were horizontal.

Samekh.—Sinaitic *samekh* was a fish. The inventor of the cuneiform stood the fish upright on its tail, the single small vertical wedge, while its body was represented by two more small vertical wedges side by side. We at once recall the similar transformation of their fish sign by the Shumerians, though their HA possessed more wedges.

ʿAyin.—The Sinaitic *ʿayin*, the eye, soon lost its pupil and became a mere oval or even a circle. This could be represented in the cuneiform only by a good-sized wedge, the *ú* sign of the Akkadian.

Pe.—Sinaitic *pe* consists of a horizontal line from which spring out two curves. When the sign was turned on its side, the former base line was abandoned, and two parallel horizontal wedges were all that were required.

Šadhe.—As we have seen, the sign proper for *zayin* seems more generally to have been employed for *šadhe*; but variant writings of the same word have permitted Bauer to show that *šadhe* or a sound closely similar was represented also by the sign placed first in the table. This is the most complicated cuneiform sign, and perhaps for this reason is relatively rare on the tablets. A comparison with the Sinaitic form in the table will suggest a possible connection.

Qoph.—The looped cord of the Sinaitic *qoph* easily becomes the long horizontal wedge with the short blunt wedge following.

Resh.—Sinaitic *resh*, the human head, is perhaps the most complicated of the signs which the cuneiform attempted to represent. Two pairs of horizontal wedges indicate the head, the fifth wedge following is the neck; but the whole figure has been turned on its side.

Shin.—Sinaitic *shin*, the tooth, again presented difficulties for our inventor, but he solved them well. If the Sinaitic *shin* recalls our own W, so does the cuneiform in its more carefully written form, that given in the table out of various variants. The second *shin* there given is taken by Bauer to repre-

sent another sibilant. Although we need not of necessity demand a similar imitation from the Sinaitic *shin*, as will be seen from the table it is not impossible to make out a case for such a derivation on the basis of differentiation of two slightly different sounds. [Dhorme takes the second sign as *sin*. A true differentiation between *sin* and *shin* does not seem supported by the suggested etymologies.]

Taw.—*Taw*, the "mark," is a cross in Sinaitic. The cuneiform makes its mark by a simple horizontal line.

Whatever doubt there may be as to the similarity of any given character in the cuneiform to its assumed prototype in the Sinaitic, and whatever doubt as to the explanation of any given difference, the evidence as a whole would seem sufficient to prove that the one is borrowed from the other. Of quite equal significance is the fact that on the one hand the decipherment of the Sinaitic proves the essential accuracy of the decipherment of the Ras Shamra alphabet by Bauer and Dhorme and on the other the Ras Shamra alphabet proves the accuracy of the identification of Sinaitic characters by Professor Sprengling.

It has from the beginning been evident that the Ras Shamra alphabet was not modeled on the characters of the earliest known Phoenician alphabet as found in the Ahirom inscription. It is equally evident that it is not descended from a somewhat earlier ostrakon from Lachish,¹ whose *beth* has already left behind the square form imitated so well at Ras Shamra. The Ras Shamra *beth* might well have been derived from the *beth* of a recently discovered Gezer inscription² incised on a sherd which all experts declare Middle Bronze and date not later than 1600 B.C.; its *yodh* would be derived as easily, perhaps more easily, from the Gezer *yodh*; but its *nun* could scarcely have been derived from the already straight vertical *nun* of that ostrakon, but must rather come from the still earlier Sinaitic long curved snake.

This raises in an acute form the question of date. We may admit the late date of the actual tablets, since they were found in association with Cypriote objects of late Mycenaean age, but this does not of necessity prove that the characters themselves were invented at this same late date. The whole ductus

¹ F. J. Bliss, *A Mound of Many Cities* (New York, 1894), p. 88; W. F. Albright in *Archiv für Orientforschung*, V (1929), 150-52.

² W. R. Taylor in *Journal of the Palestine Oriental Society*, X (1930), 17 and 79-81, illus. on Pl. I opp. p. 22. Another ostrakon, this time marked with but one character, an incised *kaph* of archaic type, is mentioned by Albright in his report on "The Third Campaign at Tell Beit Mersim," *Bulletin of the American Schools of Oriental Research*, No. 39 (Oct., 1930), p. 8.

Fuller discussion of early North Syrian inscriptions is to be found in two works now in press: Arno Poebel, "Das appositionell bestimmte Pronomen der 1. Pers. Sing. in den westsemitischen Inschriften und im Alten Testament" (Vol. II, Part I, in the Oriental Institute's new series called "Assyriological Studies"), and A. T. Olmstead, *History of Palestine and Syria*.

of the writing implies a maturely developed script which has been allowed enough time to attain full convention and then to elaborate variants in individual writing. The fact that the close analogies are not with the Ahirom inscription, the Lachish ostrakon, or even the ostrakon from Gezer, cannot but excite our suspicion that the cuneiform alphabet was invented not long after the Sinaitic itself. To attempt a closer dating at the present moment would serve no useful purpose.

The second outstanding characteristic of these northern symbols lies in their curving lines, due to the continued influence of the Egyptian scribe's reed pen-brush. Again we need not resort for this to mere hypothesis unsupported by known facts. The Samaritan ostraka furnish clear and fine examples of early alphabetic writing in ink. The writer owes to the generosity of Professor James Richard Jewett of Harvard the opportunity he had of examining these ostraka closely and carefully for several weeks on end at Constantinople in 1914. In this connection a word of heartfelt thanks is due also to that noble oldtime Turk, Halil Edhem, director of the former Ottoman Museum, who did everything in his power to facilitate the examination. As a result of this examination the writer feels free to assert with confidence that these ostraka were written with the Egyptian scribe's reed pen-brush, not with the later split-point *qalam*. The same technique seems evident in a single ink-written ostrakon of about 1500 B.C., or perhaps even earlier, found by Elihu Grant at Beth Shemesh in May, 1930.¹ The *qalam* was certainly never invented for use on pottery or papyrus. It is neither Semite nor Egyptian in origin, but Indo-European, probably Greek. Its name is an Indo-European word for reed or straw: Sanskrit *kalamas*, Greek *κάλαμος*, Latin *culmus*, German *Halm*, Icelandic *hálmr*, Scandinavian *halm*, Anglo-Saxon *healm*, English *halm* and *haulm*. The use of the reed pen-brush is clearly apparent in the curved or presently curving tails of Nos. 2, 10, 11, 12, 13, in the general outlines of Nos. 15, 16, 18, and in the early appearance of connecting strokes between the fishbones of No. 14. It is not necessary to add anything further to demonstrate the fact that, and the manner in which, the Canaanite-Phoenician symbols developed directly from their Sē'irite forbears found on Sinai. One further fact remains to be

¹ The account of it in *Revue biblique*, XXXIX (1930), 401-2 and Pl. XV^{bis}, was kindly called to the writer's attention by his colleague, Dr. A. T. Olmstead.

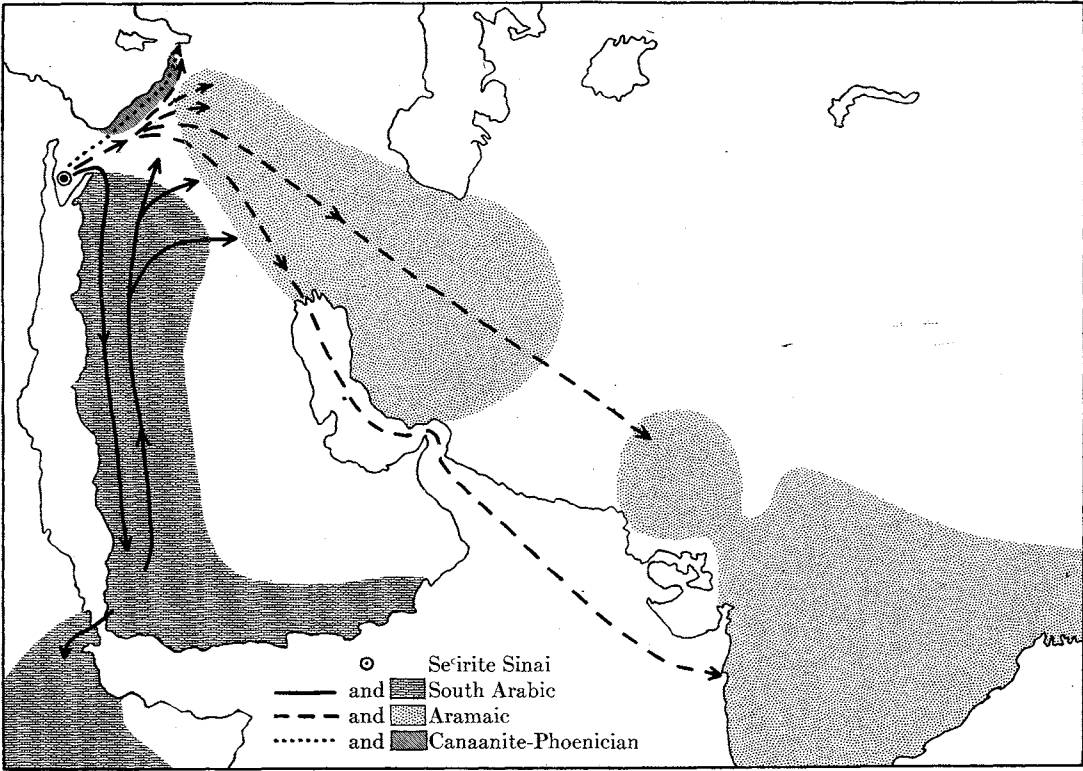
noted. The phonetic sensibilities of these northern sons of Se'ir were less finely developed than those of their southern brothers. They felt the need for but one addition to the primitive list of Sinai, the velarized *t*, and they accomplished this addition very simply by drawing a circle round the *t*-cross.

Immediately the writer had seen the simple lines along which these two descendants derive directly, but separately, from the newly found and now solved Se'irite of Sinai, he was confronted with two further problems. Why this wholly separate development? Why throughout the Semitic world do these two sons of Sinai remain so wholly and so far apart, with no clear influence of one upon the other discernible until nearly two thousand years later, when the North Arabic tongue and script begin their conquering march southward? And, second, how account for the wide difference in influence and spread of the two in the world-conquering expansion of the alphabet which is still in progress?

The start of the development along widely separate lines was relatively easy to explain in view of the formidable distance by which ancient means of travel separated the cradles of the twin babes. But that did not explain the continued lack of interdependence or influence of either upon the other. Nor could this be explained by any lack or faultiness in either system. Neither could one adduce greater activity, enterprise, keenness of mind, or development of culture on the part of the men who carried the system on either side. When in doubt, said the writer to himself, look up Breasted's *History of Egypt*. And there he found in the last sentences of chapter x and the whole of chapter xi a wholly satisfactory solution ready to hand. It is not necessary to quote in full this time, as we did above. We need set down here only the heading of chapter xi: "The Fall of the Middle Kingdom. The Hyksos."

The cessation of Egyptian work on Sinai and the dislodgment of the tribes of Se'ir were not the only results of the rapid decay of the 12th dynasty of Egypt which set in at about 1800 B.C. General disorder in these regions and complete disruption of trade and travel along the gold-and-ivory, myrrh-and-incense route up the west coast of Arabia naturally followed. The demand of Egypt and with it of Palestine-Syria for such luxuries probably dropped to nearly nil. The Hyksos

MAP I



THE ORIGIN AND EARLY EASTERN DEVELOPMENT OF ALPHABETIC WRITING

invasion prolonged this state of affairs until roughly 1550 B.C. Thus for two hundred and fifty years at least an effective barrier was placed between the alphabet of the South and that of the North. When finally that of the South drifted north again, it found at the gates of Egypt a system still smugly satisfied with its royally leisurely system of archaic writing, not ready to modify it for another fifteen hundred years. On the northeast frontier Assyria and Babylonia were similarly unwilling to breach the Chinese wall of their ancient culture for any gift from these barbarians of the desert. And the "fertile crescent" was occupied by the new northern alphabet in the hands of traders as keen and as sharp as their rivals from the distant South.

Hence the southern alphabet, especially in the mangled, vermiform shapes which it took on in the hands of the still barbarous Bedouins of the northern deserts, vainly broke its wings against all northern frontiers. The only place in which it succeeded thoroughly and easily in breaking out of bounds was by sea across the straits of Bab el-Mandeb. But there it conquered only an isolated backwood outpost in the progress of civilization. Or was this really the only sea route it attained? The writer, relying on a view arrived at years ago with Bühler's *Indische Palaeographie* (Strassburg, 1896), had been considering it an assured fact that the earlier Brāhma alphabet of India, the *brāhmī lipi*, could not be derived from and showed no trace of influence by the South Arabic mode of writing.¹ Along with other considerations, this apparently assured fact seemed to bear out the writer's skeptic attitude toward any ancient connection by sea between Aden and India. The doubt which still persists in the writer's mind as to the early use of this sea route is, indeed, strengthened by ethnological evidence newly brought to light.² Nevertheless the writer's assurance as to the northern derivation of this earliest of Indian alphabets was seriously disturbed by a renewed look at Bühler's table of parallel signs on page 12 of his text volume and at the more elaborate series in his portfolio of plates. The writer lays claim to no ability to solve the problems of Sanskrit scholars for them. But he would like to urge upon his Indo-European colleagues a renewed investigation of this matter.

¹ Bühler, pp. 10 ff.

² See Carl Rathjens in *Journal asiatique*, CCXV (1929), 141-55.

On the Semitic side the writer finds particularly disturbing to the North Semitic theory the older forms of Sanskrit *b*, so similar to those from Sinai and (apparently a little later) approaching the Minean, by no means any northern form. How could this style have reached India? It is not necessary to posit any shipping to Aden. South Arabic inscriptions reach northeastward almost or quite to the shores of the Persian Gulf. But, after all, this simple foursquare form of the oldest Brāhma *b* is not South Arabic and need not be due to any influence from there. Other indications point even more strongly to the northern type and route. One of the strongest bits of evidence is found in the Samaritan ostraka. The numerals there used for the dates of the king's reign are Egyptian numerals, hieratic, not hieroglyphic, of a type never used in Egyptian for dates. Now these hieratic (demotic?) numerals appear with the Brāhma alphabet in India.¹

By what road and through whose mediation did these loans reach India? Loans imply merchants. The South Arabic merchants will probably have to be excluded. The Canaanite-Phoenician traders were on the Mediterranean seacoast, and we have no good evidence for any large traffic overland on their part. In this connection we may do well to recall that in the Sinaitic Se'irite we found at least one form of a noun and one pronoun which had distinctly Aramaic color. These point to the Phoenicians of the land route, the Arameans. Their influence is visible on the northern land frontier of Semitic trade as early as any inscriptional evidence for Canaanite-Phoenician except perhaps the ʾAḥīrām inscription. In language that appears in general to be wholly Canaanite-Phoenician, with proper names of non-Semitic South Anatolian type, we find their word for "son," *bar*. They had learned their alphabet on Sinai with, not from, those who later branched off to the west as Canaanite-Phoenicians, while they, as Arameans, developing the whole of their peculiar² language more slowly, drifted northward and eastward. Along with a form in general Canaanite-Phoenician, what more likely than that these men carried with them and transmitted to others an archaic foursquare *b*?

¹ Bühler, pp. 77-78.

² As it develops, Aramaic exhibits, like the mercantile English, a great mixture of influences, Hittite, Assyro-Babylonian, Persian, and Greek, as well as Canaanite-Phoenician, and later Arabic and Turkish.

But how far eastward did they go by land? Scarcely in this early time much farther than the boundaries of Assyria-Babylonia and the headwaters of the Persian Gulf. There they might well meet men from India, traders as eager, keen, and shrewd as they. With this attempt to define the boundaries of South Arabic in its spread, we have begun to find the answer to our second question.

The South Arabic alphabet, chiefly by reason of its historico-geographical position, perhaps somewhat aggravated by its greater intricacy due to the finer phonetic observation of its own people's linguistic habits, remains bottled up within the boundaries of Arabia. One shift of a portion of its own people helps it conquer a forlorn backwood outpost of advancing civilization in East Africa, Abyssinia. Later still, in a secondary way, through its influence on North Arabic, it attains with the latter something like a partial world-conquest. The northern branch of Se'ir is more fortunate in the choice of its position and in its perhaps more barbarous, less keen phonetic sensitiveness. In Palestine, Syria, and the "fertile crescent" they sit astride the great highroads of rapidly developing world-commerce and share in the rise in world-culture that goes with it. That is why the northern, simpler, perhaps cruder alphabet spreads farther, why its power is more effective and more lasting in its march toward world-conquest.

Even the eastern branch of this northern writing presently begins to share the fate of that of the South. Having begun to trace the journey of this eastern branch, it is best here to follow it on broad lines to its finish. Throughout, until this very day, this eastward progress of the alphabet shows a distinctly Aramaic tinge. We have seen that once, in early times (7th-9th century B.C.?), very probably in this form and manner, it reached India. Once again, with the rise of the Achaemenian world-empire, in a form now distinctly differentiated as Aramaic, the same alphabet reached the Indian frontier, this time the northwest frontier, by the overland route, and became there the *kharoṣṭhī lipi*.¹ And once again it took with it its numerals.² Into their account of this our Indological brethren will now have to weave a mass of new evidence, concentrated especially in the Aramaic papyri of Assuan and Elephantine, for an increasingly more necessary new edition of Bühler's work.

¹ Bühler, *passim*, esp. pp. 19 ff.

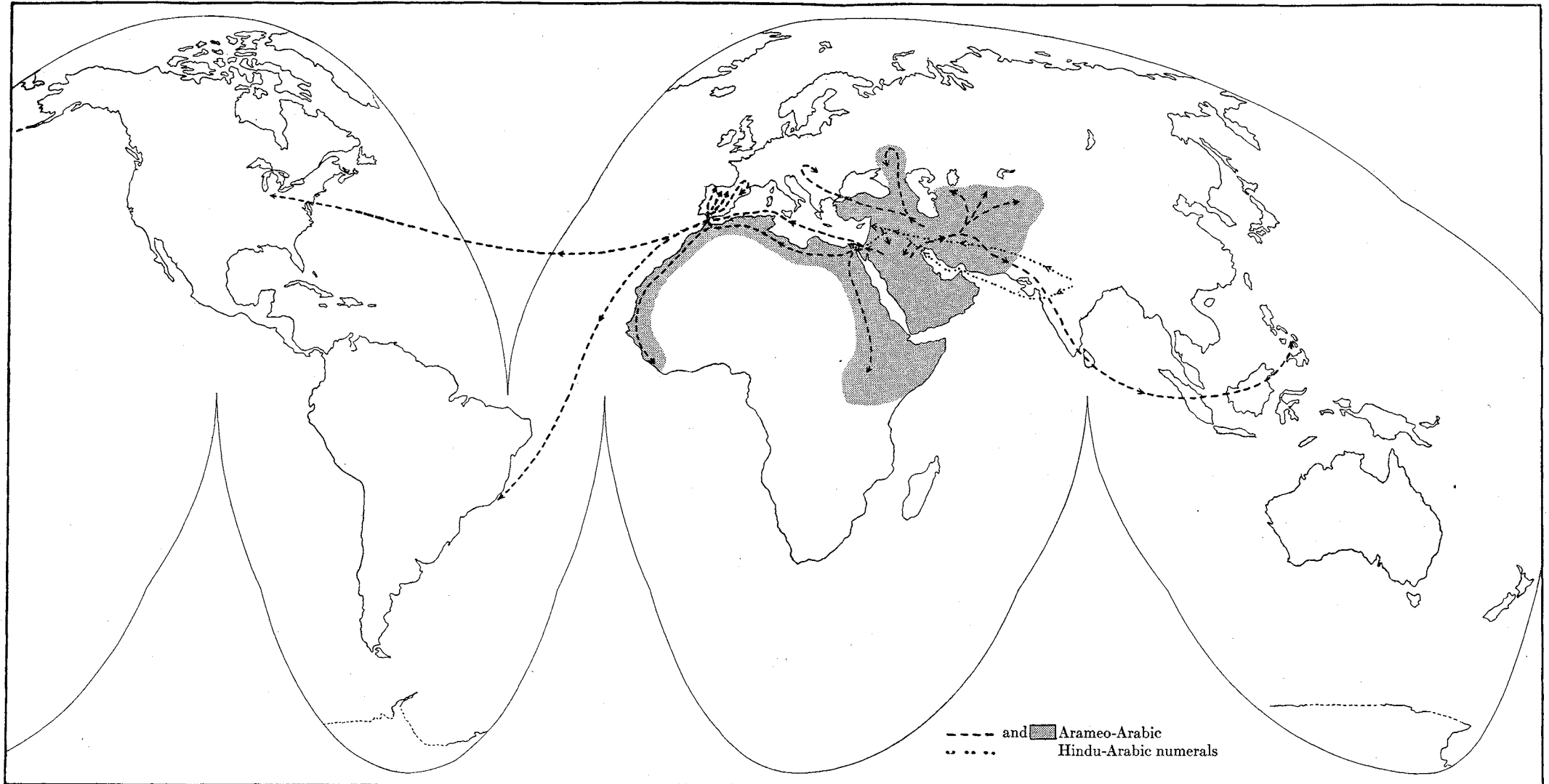
² *Ibid.*, pp. 73 f.

Meantime, again, it strikes one as curious that this eastern writing travels thus far, and then for a long time little or no farther. The situation appears measurably parallel to the stoppage of South Arabic, which we have just now examined. The Hindu adopted readily and adapted well to his own use this gift of the Western world; perhaps he adapted it too well and finely to his own use. His phonetic finesse and the intricacy of his system resulting from it effectively barred out any extensive progress southeastward into the peninsular and insular Malaysian world with its commercially keen, but barbarously ignorant, minds. And northward China's conservative pride in its old culture and its institutions proved to be the immovable barrier which effectively stopped the irresistible progress of alphabetic writing for several thousand years, i.e., until these modern days of ours. But one slender ray of alphabetic light, prophetic of what now is taking place, did penetrate to the very heart of China by the northern route through Turkestan; its memorial may still be seen in the Nestorian Syriac inscription of Singanfu. Farther west we find Persia curiously halting in its progress. Under the great Darius, the Achaemenian, it alphabetizes its cuneiform, but clings to its cuneiform shapes. Later, with Pahlavi-Parsee, it hybridizes alphabetic writing with cuneiform practice, using alphabetic word pictures of a foreign language with inflectional endings and other material of its own written in purely alphabetic style. Only with the Arab conquest, about A.D. 650, does the Persian genius finally consent to adopt a direct descendant of the Aramaic script and adapt it to a purely alphabetic writing of its own tongue.

With this we come back to the Aramaic hearth itself. Its conquest of Jewish Palestine, of Syria, and of Babylonia, its sporadic spread in Achaemenian times to the southern boundary of Egypt and the western frontier of Anatolia, its far wider temporary diffusion with Christian missions in various forms of Syriac and with the Jewish dispersion in the square characters of its massoretic Scriptures need only be mentioned in passing. It was destined, before its expansive vitality was sapped, to undertake a far more massive onset in the direction of world-conquest.

The first symptoms of this expansive effort may be seen in a definite invasion of the solid block of South Arabic territory. An early,

MAP II



THE APPROACH OF THE ARAMEO-ARABIC ALPHABET TO WORLD-CONQUEST, WITH INDICATION OF THE RISE AND EARLY SPREAD OF THE HINDU-ARABIC NUMERALS AND THE ZERO

perhaps the earliest, movement in this direction is brought about when Nabatean Arabs foregather out of the North Syrian Desert and settle down to a life of trade and growing culture in Petra, the very center of the old native land of the primeval ancestor of all alphabets, Se'ir. They bring with them for purposes of writing an Arabicized Aramaic language and script. With their advance southward on the old gold-and-ivory, myrrh-and-incense route their language and writing crowds out and displaces the South Arabic Thamudean along the northeast corner of the Red Sea. Shortly after this a people immortalized by Gibbon in his brilliant account of the tense, brief struggle of Zenobia of Palmyra with the Roman Empire presses southward from the "fertile crescent" into the North Syrian Desert. The Palmyrenes speak and write a language and script distinctly Aramaic, but their rulers' names are Arabic.

In the time of Constantine we find not far southeast of Damascus our first royal inscription in the North Arabic language. It is written in alphabetic characters clearly adapted from the Aramaic. Between this time, about A.D. 325, and the rise of Islam, about A.D. 650, South Arabic is practically completely wiped out in the Arabian peninsula, leaving to the spoken language only a few islands off the southeastern coast and to the script only the forlorn outpost of Abyssinia. All Arabia now speaks and begins to write North Arabic. The North Arabic alphabet, except for certain phonetic finesses, in the introduction of which South Arabic probably had some influence, is of pure Aramaic type. The story of world-conquest by the Arabic script under Islam is of too recent date and too well known to need retelling here. Westward along the southern Mediterranean coast its flood swells into southern France. As it ebbs thence back into Africa, it rises under Turkish banners in the North until it beats against Vienna's gates. Northward it sweeps into the very heart of Russia. Eastward it presses into China, India, and this time well into the Malay archipelago. Southward its expansion in inner Africa has scarcely reached its limit yet. And although elsewhere it is definitely on the ebb tide, it has left one mark on the world's culture that will not quickly be effaced.

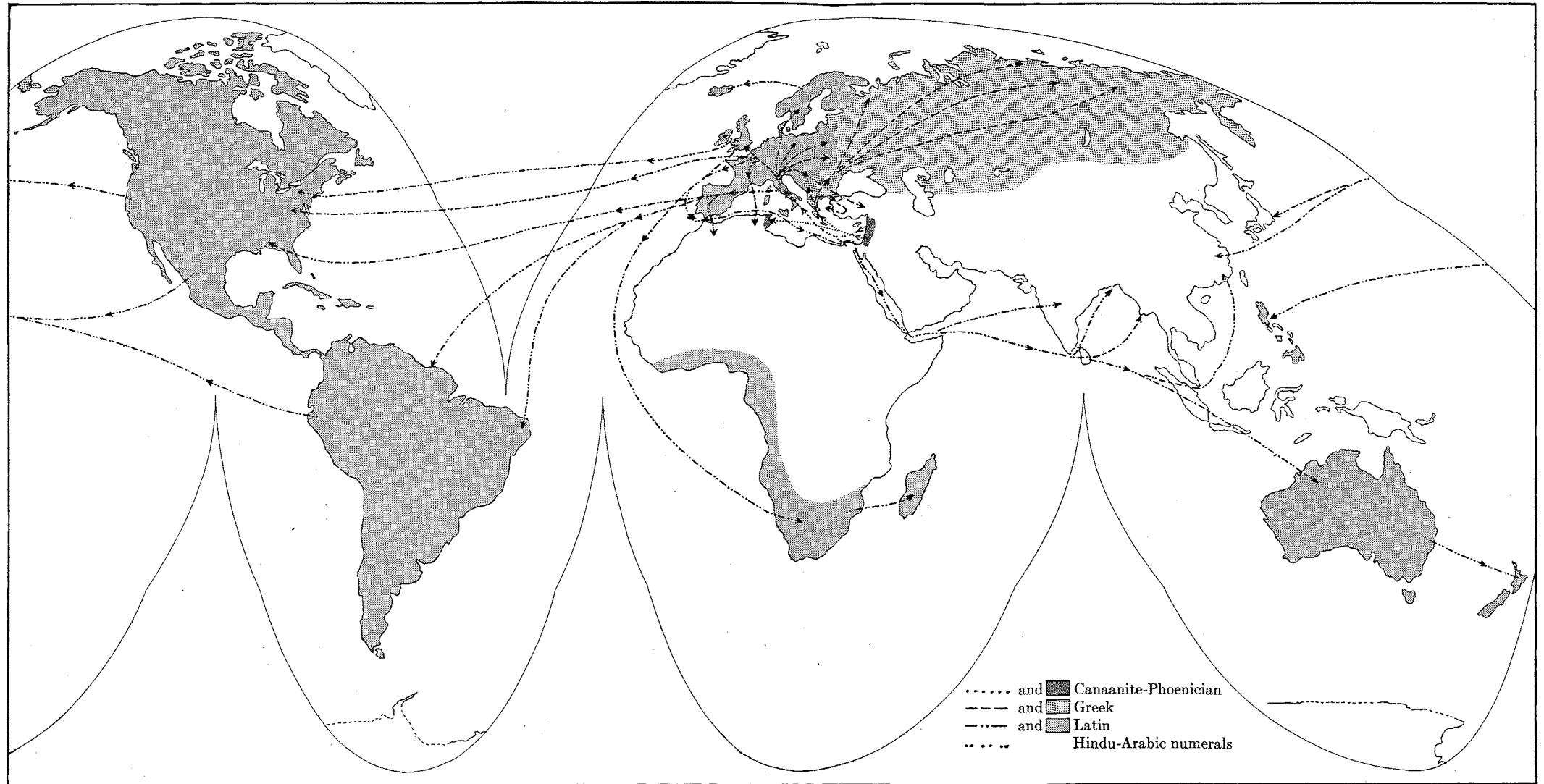
With the alphabet, as so often, went a numeral system, the numbers we call Arabic. The Arabs were not its inventors. Its obscure

birthplace lies somewhere within that now so sorely troubled land of India, whither we have thrice followed the Aramaic alphabet and twice a set of Mediterranean numerals. To offset this we must here give due honor to that great though harassed land. Like the ABC's, the cipher or zero with the decadal system of numerals that accompanies it is but another silver spoon with which in our mouths we seem to be born. It is so small a thing, so everyday to us, that we scarce note its presence. But what would be our consternation and confusion, if suddenly it were removed from us! It is as great an achievement of the human mind as anything that the youthfully proud science of the present day has done. Exactly when and where it rose, no one yet knows.¹ Some Gandhi of astronomical mathematics is its unheralded inventor, poorly advertised. Perhaps some Indologue will by some lucky chance find the way to him, as we have now succeeded in coming to closer grips with the time and place of origin and the hitherto unsung foreman of the alphabet. While we wait for this, we briefly note here that at some time well in the Middle Ages the Arabs learned this system, which they correctly call Hindu, though we erroneously name it Arabic. How it came to us and started its world-conquest must be told with the story of the travels, vicissitudes, and now still growing expansion of the Canaanite-Phoenician script.

Over the Canaanite-Phoenician script we need not tarry long nor go into needless and unsafe detail. It started on its world-wide journey with seagoing Phoenician merchants. Not greatly changed by their colony at Carthage, the purely eastern Punic form of that great city died soon after it. But when the eager-minded Greeks received Phoenician script, they, like their Indian brethren of the *brāhmā lipi*, breathed into its consonantal skeleton the living flesh and movement of the vowels. And, again with the early Hindus, out of all the directions in which it came to them, they settled on the flow from left to right best suited to the prevailing right-handedness of mankind. But further, like their Indian brethren, they adapted it not altogether wisely but too well to the fine and intricate observations of their quick and eager minds. The true Greek form succeeded in impressing itself only on the raw, culture-hungry minds of Ostrogothic Germans and Balkan and Russian Slavs. Its Egyptian derivative, Coptic, likewise

¹ Cf. Bühler, pp. 78 ff.

MAP III



THE WORLD-CONQUEST MADE BY THE ALPHABET VIA PHOENICIAN, GREEK, AND LATIN

The path of the Hindu-Arabic numerals is indicated to Italy only. Thence they spread with both the Greek and the Latin forms of the alphabet

proved an evanescent conquest. Though the Greeks placed their indelible mark on this world-treasure as on others, their peculiar form with others is waning and not waxing.

It remained for the Latin genius for simple order to take this treasure from the Greeks and give it its world-conquering form and organization. Five world-empires have marched forward under its banner—the Roman, Germanic-Roman, Spanish, French, and British. It has seen the ebb of four of these and outpassed by far the tremendous boundaries of the fifth. Its march in time and space clearly is not yet ended. Roman world-empire building started it on its way. The church's ambitions toward world-empire helped it along. Religious motives are now joined and transcended by the world-wide forces of modern business and modern science. All three are engaged in a tremendous campaign of world-conquest, and all three are carrying Rome's alphabet with them. Thus quite recently this alphabet has added to its conquests Anatolia, crowding back with bloodless, but therefore the mightier, pressure its aging brother, the Arameo-Arabic. And with its march step by step the cipher and the decadal Hindu numerals which the same Latin genius, flaming high in the late Middle Ages in Italian merchant cities, enrolled in its conquering ranks. Now, wherever Latin letters rule, Hindu-Arab numeration with its cipher is in the saddle with them. Nay, far more! The dominion of this precious gem in India's crown runs at least as far again beyond the rule of Latin letters as the latter runs beyond the limits of the British Empire. In the lands of Arab writing the numerals run counter to the script's direction; but wherever Arab script is used, Hindu numerals rule still in the form in which Italian merchants met them there. And where Greek and its descendant alphabets have spread, in Greece itself and in the Balkans and throughout the bulk of Greater Russia, everywhere one does one's sums in Hindu-Arabic numbers. Only one great wedge of Eastern Asia still remains unconquered, and of this China seems to be fast coming into the fold.

Our task of the first month of 1931 is done, so far as we may do it. It was out of the writer's regular place in line, and he steps back relieved into the rank and file of his world's marching. This little volume, the result of his month's white-hot forging, he places in the hands of his peers, friend and foe, to do with as they will and must.

