

engraved gems for comparison with the coin we are now discussing. Fig. 7 is a sard, formerly in the Blacas Collection. It represents Melpomene, the tragic Muse, wearing a mask at the back of the head, in a similar fashion to the coin from Lachish, and the two examples described by M. Babelon. It is needless to remark that a mask was the special appanage of the ancient actor. Although the theatre was an important feature in Greek life, it very rarely appears in purely Hellenic art. In Roman Imperial times, however, the stage and its accessories were a favourite theme; and the mask in its several varieties was a frequent subject for the engraver. The stone illustrated is three or four centuries later than our coin; but it presents the same device upon a larger scale, and will serve to demonstrate how the antique artist was in the habit of treating it.

Fig. 8 is a scarab of green jasper, found in a Punic grave at Tharros, in Sardinia, together with coins of the third century B.C. It exhibits Besa wrestling with a couple of lions, and is an example of carefully balanced design, and an evidence of the popularity of Besa throughout the Phoenician world.¹

All the illustrations, except fig. 3, are from casts supplied by the British Museum; and the writer is greatly indebted to Mr. Geo. F. Hill, the Keeper of Coins and Medals, for valuable information and assistance.

THE PHAESTOS DISC.

By Prof. R. A. S. MACALISTER, Litt.D.

I HAVE read with much interest, but without complete conviction, the article upon the Phaestos Disc in the January *Quarterly Statement*. I do not desire to defend, *contra mundum*, the attempt at an interpretation which I put forth some time ago, and to which the author of the article in question refers. Everything about this singular document is unknown—its purport, its language, its script, and its ultimate provenance—and all attempts, without exception, to pierce the obscurity surrounding it are at best conjectures which

¹ A. H. Smith, *Catalogue of Engraved Gems* (London, 1888), Pl. C, No. 173; Pl. G, No. 754.

must await their chance of confirmation or refutation whenever some further discovery shall cast a ray of light on the problem.

Indeed, were I re-writing now what I said about the Disc in previous publications, I should lay less emphasis upon the superficial resemblance that certain characters bear to letters in the Old Semitic alphabet, upon the *Pulasati* analogies of the plumed head-dress, and upon the chance that the object happened to be found in Crete. The plumed head-dress is not *peculiar* to the *Pulasati*, and, indeed, it is not shown in all the Egyptian representations of that people. It is to be seen also among the American Redskins, and in the wild folk depicted in the early stone-age rock-paintings of Spain—at Alpera, for example.¹ Therefore there may be nothing more than chance coincidence in the Philistine-like head, represented in my list of signs by the symbol *M*. Moreover, the disc is probably, as I now see, not native Cretan. For if it were, assuredly the numerous excavations that have been made in the island would have produced other examples of its remarkable script, and still more of its peculiar technique. The essential fact in the whole mystery is the nature of the writing—the inscription being printed with a set of stamps, probably resembling those used by book-binders. This indicates an office of some sort where such writings were prepared as a matter of routine. It does not seem probable that a private person would take the trouble of making a set of stamps for occasional use. The handiworks of this postulated office should therefore be more abundant in Crete than they are if it had been established upon the island.

The document was therefore imported from abroad, like the Tell el-Amarna letters in Egypt. But such imported documents, in nine cases out of ten, are of an official nature—treaties, contracts, diplomatic or other correspondence, and the like. Literary or religious texts, and musical compositions in a strange and complex notation, would be of little interest outside the regions in which they were produced; and while it cannot be said to be absolutely impossible, it is at least very unlikely that any such would be imported and preserved in the archives of the Cretan palace of Phaestos.

And, once more, documents produced mechanically in an office, as we have seen that the disc most probably was, would be more

¹ See *L'Anthropologie*, Vol. 23 (1912), p. 529 ff.

likely to be official or legal than literary, religious, or artistic. We can hardly avoid picturing a professional scribe or notary when we look at a tablet thus printed with specially prepared stamps. But such functionaries are seldom called upon to write poems, religious hymns, or musical compositions. They write public or private business documents, and thus the probability that the disc is of this nature is increased.

Until we know something about the language of the disc it is useless to indulge in controversy as to its nature; we are merely beating the air. I shall therefore not occupy space in considering *seriatim* the objections which the author of the paper in the *Quarterly Statement* has raised to the interpretation of the inscription as a literary document in an unknown phonetic or ideographic script: I need only say that some of the difficulties which he suggests do not trouble me. Consider, for instance, the mark in which I, with some others, have seen something analogous to the Devanāgarī *virāma*. (For me, the most serious objection to this interpretation is that its resemblance to the Devanāgarī sign in external appearance makes the coincidence very remarkable.) This identification suggests that the signs are syllabic, each denoting a consonant followed by a vowel, and that when the vowel is to be cut off, the *virāma* stroke is drawn. Thus, a sign might mean KO, but with the *virāma* it means K only. It is objected that occasion would arise when the *virāma* would be required in the middle of a word, whereas it never actually occurs except at the end. Not necessarily. From Finland to the South Sea Islands there are languages which eschew all but the very simplest combinations of consonants in their words, even in foreign loan-words. Thus, Finnish reduces the Swedish *strand* (shore) to *ranta*. The easy combination *nt* which survives in this word might without difficulty be provided for in a syllabary such as is suggested. Similarly the Cairene newsboys endeavour to make tourists purchase a local paper, the *Sphinx*, under the name *Isfinke*. But the cutting off of the *final* vowel of a word is often of special grammatical importance, and it involves an emphasis on the preceding consonant. This is the case, for instance, in the genitive plural of feminine and neuter words in Russian. In such a language it would be natural for a special symbol to denote the syntactic loss of the final vowel and the reinforcement of the preceding consonant.

There is just one more philological point which may be referred to. The author of the paper finds a difficulty in the apparent

alliterativeness of the inscription. This I endeavoured to account for, in my previous paper on the subject, by a grammatical rule that words in apposition have the same prefix; but I did not observe a possible deduction that might be drawn from the rule, if it were established.

This is involved with the problem of the provenance of the disc. The character called δ in my list, resembling as it does the Lycian tombs, has caused scholars to look to Asia Minor as its land of origin. But Asia Minor has yielded nothing comparable to the script, and the analogy between the character and the tomb is, after all, only superficial. Apart from this resemblance, the ensemble of the characters make one think of *Africa*. The scanty costume, not to say nudity, of the human figures, the loin-cloth in the character *a*, the obesity of the woman *d*, the face-scarification (or the large earrings) in the shaven head *e*, all suggest the tropical continent. Even the "Lycian tomb" might equally well represent some sort of kraal.

Now it is at least a curious coincidence that it is just in the languages of Africa that we find a rule analogous to that which I traced in the inscription. I have no knowledge, either practical or theoretical, of these tongues, so am drawing a bow very much at a venture. But I happen to have on my shelves a copy of Hetherwick's *Introductory Handbook of the Yao Language*, and referring to this I find the rule as to prefix-*assonance* stated thus: "All nouns are divided into a certain number of classes, according to their initial syllables. Every word in the sentence which is in agreement with the noun takes this syllable, or a modification of it, as its characteristic or significant syllable." Thus, *livago*, plural *mawago*, means "axe." The singular belongs to a class of which the significant syllable is *li*, the plural has for its significant syllable *ga*. "A little axe" would be *kawago*, plural *tuwago*, characteristic syllables *ka* and *tu* respectively. Now if we take the following sentence, which I borrow from Hetherwick, "This axe is mine, it is not lost, your axe is lost," and change "axe" in turn to "axes," "little axe," "little axes," we produce the following four variations:—

LI-wago a-LI LI-li LY-angu ngini-LI-jasika, LY-enu 'LI-la LI-jasiche
 ma-wago a-GA GA-li GA-ngu ngana-GA-jasika, GE-nu 'GA-la GA-jasiche
 KA-wago a-KA KA-li KA-ngu ngana-KA-jasika, KA-nu 'KA-la KA-jasiche
 TU-wago a-TU TU-li TU-angu ngunu-TU-jasika, TU-nu 'TU-la TU-jasiche

so that with such a language as this it would not be difficult to produce alliterations even more striking than the disc actually presents.

To sum up, therefore, I submit as a series of probabilities:—

(1) That the disc being unique in Crete, is not indigenous thereto, but an importation from some foreign source.

(2) That that foreign source is fairly remote, not near at hand (as Asia Minor), for otherwise it might be expected that further documents of the kind would have come to light.

(3) That the costume, or want of costume, of the human figures on the disc points to a southern, tropical origin, rather than a northern (such as Finnish). That *possible* analogies may be traceable between the language of the disc and African languages, but I do not venture to insist on this.

(4) That the disc would not have been carried into Crete, and preserved in the Palace archives, unless it were of direct interest or importance. That a religious, literary, or musical document from some foreign country, Africa or anywhere else, would not have been of any special interest to the Lord of Phaestos.

(5) That the only kind of document thus interesting to the Cretan king would be a letter, treaty, contract, or other diplomatic communication.

(6) That the document, being printed from stamps, was most likely executed in some office where stamps of the kind were kept.

(7) That the only kind of document likely to be thus produced would be a letter, treaty, contract, or other diplomatic communication. That it is not probable that a religious, literary, or musical composition would be so produced.

I refrain from further speculation as to where in Africa there was a centre of civilisation advanced enough to print from movable types in or about the middle of the second millennium B.C. We have had so many archaeological surprises during the last half-century that nothing would astonish us now. We may not illegitimately indulge in pleasant dreams of letters relating to a trade in gold between Crete on the one hand, and on the other Punt, Zimbabwe, Ophir, or even Sir Rider Haggard's city of Kōr! But we must wait in patience till some future excavator shall have the good fortune to find a clue to the mystery, before our dreams can take reality, or be dissipated in the cold light of day.