various combinations in which it occurs 33 is perhaps the most characteristic. In 33, 34, 37 are seen some further elaborations of 50 and 33, which, however, are mere reduplications of the same essential elements without the addition of anything novel. Very often such patterns as 33, 34 are carried one stage further by the addition of oblique lines to the small lozenges at the two sides (*cf.* the ornament of Pl. XVIII, 13). The latter then present much the appearance of lizard claws (35*c*), and the pattern might easily be supposed to be zoomorphic, but it is clearly nothing more than a development of the familiar geometrical form.

The pattern shown in 53 is interesting as it explains what would otherwise be a perplexing peculiarity in Pl. XIX, 20, viz., the occurrence on the body of the vase of what seem to be two circles connected by a vertical line (54). I have elsewhere remarked that the circle and the spiral are never found among the designs painted upon Kabyle pottery. And this pattern on Pl. XIX, 20, affords no exception to the rule, for what look like circular rings prove on a close examination to be very carelessly drawn lozenges of the same type as those which appear at the four corners of 53. Here then we may observe the first step towards the development of the circle as an ornamental motive; but native Kabyle designers probably never advanced any further.[1] It is only on Tuareg skin vessels, so far as I am aware, that the spiral is found.

(3) The band, either vertical or horizontal, needs no special illustration. Such large pots as Pl. XIX, 17–21, show its use on wide surfaces, *cf.* Pl. XX *passim*. Where the black zones are broad they are often separated by the thin scrabbled line, 17, which has been shown to have originated from the pattern seen in 26. The broad black zones were applied first, and sometimes so little space was left between them that there was hardly room even for a wavy line; so that in the last resort the pattern derived from the triangles is reduced to little more than a succession of pinhead dots.

The existence in our own time of this pottery with its unquestionable pedigree of full 2,500 years is from more than one point of view a circumstance of the highest interest. On the one hand, whether the manufacture originated in Cyprus or in North Africa, it proves a close commercial intercourse between the two countries at a period not later than 600 B.C. On the other hand it affords yet another welcome example of the persistence of an art unchanged and unimproved for an almost incredible length of time. Just as the punctuated or incised black ware of the Mediterranean occurs in Egypt in pre-dynastic times and is found again in the period from the XIIth to the XVIIIth dynasty, and just as the black-topped red-ware of the earliest chalcolithic Egyptians reappears in the middle Kingdom, so a technique that was invented nearly 3,000 years ago in Cyprus or in Libya is represented at the present day by the pottery of the Algerian Kabyles.

[1] [The same development is traceable in the incised ornamentation of the earlier Bronze Age in Cyprus: see Ohnefalsch-Richter, *Kypros*, Plate ccxvi, 3, 4, 5, 7, 10, 11, 12, 14, 32 and a good series of specimens in the Ashmolean Museum, Oxford. For Sicilian Neolithic parallels see *B.P.I.*, XVI, Pl. vi, 22: viii, 1, 4, 9, 14.—J. L. M.]

NOTES ON THE HISTORY OF THE KABYLE POTTERY.

By John L. Myres, M.A., F.S.A.

[With Plate XX.]

The object of this note is to discuss the significance of certain correspondences of form and ornamentation which, Mr. Randall-MacIver suggests (p. 245 above), may exist between modern Algerian pot-fabrics, and certain phases of pottery-making in ancient Cyprus; and to raise the question how far, in spite of the great interval of space and time which separates the two groups, we should be justified in inferring some connection between their styles.

Mr. Randall-MacIver refers briefly, in his concluding paragraph, to the "unquestioned pedigree" of the Algerian fabrics, running back for, at all events, 2,500 years; and in his recent *Libyan Notes*[1] he has presented a strong case for an even longer pedigree. As this conclusion, however, is presupposed by the whole argument which follows, I may perhaps be permitted to restate briefly the position which is assumed, and to support it, if that be necessary, by a few supplementary considerations.

The first argument for a very high antiquity for these Algerian fabrics is supplied by their technique, which is wholly handmade, and uncontaminated with a knowledge of the potter's wheel. Now there is, I think, no instance known of a handmade pottery fabric coming into existence in an area where a wheelmade fabric has once become familiar; and there is every reason to believe that wherever a handmade fabric and a wheelmade fabric are found to coexist, the handmade fabric represents a survival from a stage of culture previous to the introduction of the wheel. Such primitive fabrics are, however, very persistent in areas where competition is slight, or where local circumstances provide a citadel of refuge for the representatives of the older tradition; and I published recently[2] a striking instance of the survival in another part of the North African coast, not merely of two uncontaminated wheelmade fabrics—Arab and Græco-Roman—alongside of one another, but also of a handmade fabric, alongside of both of them, which is indistinguishable, except by its even greater rudeness of execution, from the neolithic fabric of the neighbourhood. Now in Algeria, as in other parts of Punic Africa, the knowledge of the wheel was introduced, as the excavations on the site of Carthage show, at least as early as the seventh century B.C.; while there is every probability, as we shall see, that, as in Sicily, immediately oversea,

[1] *Libyan Notes*, by D. Randall-MacIver and Anthony Wilkin (London, Macmillan, 1901), p. 58ff.

[2] *Man*, 1901, 83.

the contact with the wheel-using culture of the Eastern Mediterranean took place even earlier still, and probably in the latter part of the Bronze Age. The "pedigree," therefore, of the Algerian handmade fabrics may probably be traced back at least to the ninth or tenth century B.C., on the evidence of the mode of manufacture alone.

A further consideration is supplied by the surface technique. Nearly all the varieties of "Kabyle" pottery—to use a popular and convenient generic term—present more or less definite tokens of descent from a primitive red-faced fabric analogous to Mr. Randall-MacIver's class (4), to the red-faced pottery of pre-Dynastic and proto-Dynastic Egypt, and to the "red polished ware" of the earlier Bronze Age in Cyprus and on the Syrian coast. In support of a similar contention, I had occasion some time back[1] to discuss the very wide distribution of this characteristic "red-faced" mode of pot-decoration; and more recently, also, to describe the occurrence of intermediate links,[2] both in Tunis and in the neighbouring areas of Malta and Sicily, which would carry the period within which "red-faced" pot-making was practised in these parts well back into the Bronze Age, and within a measurable distance of the very high antiquity suggested in *Libyan Notes*.

Thirdly, in the same discussion, Mr. Randall-MacIver drew attention to certain correspondences both of form and ornament between those Kabyle pot-fabrics which conform most closely to the old red-ware type of North Africa, and the pottery of analogous technique in pre-Dynastic Egypt; and it is in continuation of the same line of enquiry that he has published now his investigation of the "white-faced" black-painted fabric of Toudja and its neighbourhood, which stands at the other extreme of the gradations of Kabyle ceramic, from the "red-faced" group, which we have just seen reason to believe to be the most primitive of the whole series.

The White-faced Fabric of Kabylia, and its affinities.

Like the other "Kabyle" fabrics, the "white-faced" fabric is wholly handmade, and this fact must be kept in mind throughout, in comparing it with other fabrics elsewhere, which resemble it in technique, or forms, or ornaments.

The distinctive feature of its technique is the thick white chalky slip, which has been sufficiently described already. Only three of the ancient pot-fabrics of the Mediterranean present anything comparable with it. The first of these, the white-faced pottery of Naukratis in the Egyptian delta, may be dismissed briefly. It is a very local and very temporary experiment, in an exceptional corner of the Greek colonial world; it belongs to the middle of the sixth century B.C., when direct Greek access to North Africa was cut off by the growing power and jealousy of Carthage; it is wholly wheelmade; its forms are a compromise between those of the XXVIth Dynasty in Egypt and the contemporary forms

[1] *Journ. Anthrop. Inst.*, xxvii, 173-4. [2] *Man*, 1901, 71.

of Asiatic Ionia; and its ornament belongs almost wholly to the Levantine orientalism of the period. In every respect, therefore, except the single point of technique, it contrasts markedly with the "Kabyle" survival, and need not trouble us further.

The second is that fabric of late Bronze Age pottery in the Levant, and especially in Cyprus, which in the *Cyprus Museum Catalogue* I described as "white-slip ware." Its place of manufacture has not even yet been identified, but the fabric is nowhere so frequently or so elaborately executed as in Cyprus; and it is now very probable that in its later stages it became naturalized in that island; though its origin is almost certainly to be sought on the Syrian coast opposite. Its date is fixed, relatively, by its predominance during the Mycenæan occupation of Cyprus; and, absolutely, to the centuries from the twelfth to the fifteenth B.C., by its appearance[1] on Mycenæan sites in the Ægean, and on XVIIIth Dynasty sites in Egypt and Syria. In Cyprus, where alone the history of the fabric can be traced in greater detail, it seems to make its appearance—if anything—a little earlier than the Mycenæan importations, and to disappear abruptly at the close of the true Mycenæan Age, leaving no successor among the fabrics of the early Iron Age which follows. Outside the Levant no such fabric is known in the later Bronze Age or early Iron Age, and the only parallels which I know at all—besides the exported examples already quoted—are a vase found somewhere in Malta (now in the Valletta Museum; unpublished) and some fragments in an identical style, found on the Roman site at Rabato in the same island, which are preserved (unpublished) in the Rabato Museum. In spite of the close similarity of the fabric, however, the Valletta vase is of a form which suggests an Arab origin, and the Rabato fragments are too small to warrant any conclusion on this point; so that these isolated scraps are only of value as bridging the gap both in time and space between the Bronze-Age Levant and modern Algeria.

There is therefore no direct evidence that the "white-slip ware" of the Cypriote Bronze Age was ever exported to Algeria: and only doubtful evidence even so far as Malta. On the other hand, it is only fair to note, *firstly*, that the present indications point to the Syrian coast as the probable place of origin for the "white-slip ware"; *secondly*, that the Syrian coast was in any case the starting point of the Semitic adventurers who founded Carthage and the Liby-Phœnician regime; *thirdly*, that though (with the exception of the doubtful Maltese fragments) the white-slip style of the Levant does not stray beyond the Levant and the Ægean, the contemporaneous and very closely related ware, which in the *Cyprus Museum Catalogue* is described (not very appropriately) as "base ring ware," and seems likewise to have its home somewhere on the Syrian coast, has been found, very rarely, both in the Cyrenaica and in South Italy;[2] *fourthly*, that though the foundation-date of Carthage falls well below the probable lower limit of the "white-slip ware" in the Levant, and though the earliest tombs which have been

[1] The references are given fully in *Cypr. Mus. Cat.*, Oxford, 1899, p. 39. [2] *Ibid.*, p. 37.

found as yet on the site of Carthage belong to the middle of the Early Iron Age, there is yet some probability that the Liby-Phœnician regime may date back in the direction of the latest phases of Mycenæan activity in Cyprus; with the corollary that, if so, the "white-slip ware" of Cyprus, being the finest fabric of pottery which can be traced as indigenous to the Syrian coast, would naturally be predominant among the ceramic imports of the Punic West.

But, unfortunately, the similarity between the Levantine "white-slip ware" and the "white-faced" Kabyle pottery is almost entirely confined to the technique. The resemblances of form are few and remote; an analysis of the two schemes of ornament reveals almost complete divergence both of treatment and of component elements; compare, for example, Fig. 1, with Plates XVIII–XX; and it

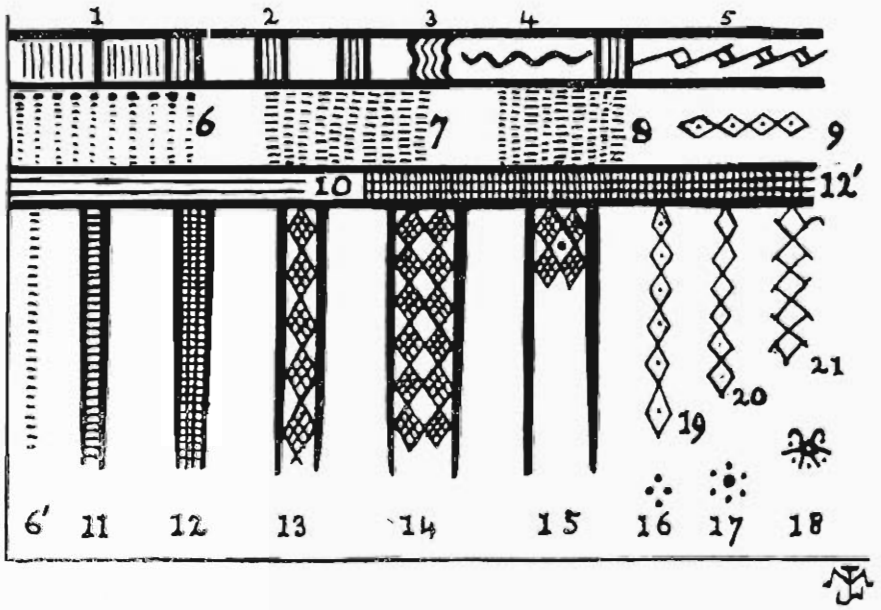

FIG. 1.—DIAGRAM OF THE ORNAMENTS OF THE WHITE-SLIP WARE OF CYPRUS.

is difficult to believe that a wholesale introduction of a "white-faced" technique could have been effected without appreciable contamination of the associated ornaments. Only on the hypothesis, *either* that the native Algerian ornament was already in advance of that of the "white-slip ware," *or* that some subsequent revolution in ornament could be assumed, could we account for the disappearance of the ornaments appropriate to the Cypriote "white-faced" technique, while the technique itself was adopted.

The third "white-faced" fabric which is found in the Mediterranean area—excluding inner Asia Minor—is that of neolithic and chalcolithic Sicily; which occurs, as in North Africa, in company with a bright red-faced fabric; and which is ornamented, like the white-faced itself, with geometrical patterns in black, and gives rise to a large series of intermediate styles. This style is best represented,

in its simpler forms, on sites in the provinces of Palermo[1] and Girgenti,[2] and in more advanced and elaborate developments in the province of Syracuse, at Monte Tabuto,[3] at Monte Racello,[4] and, above all, at Castelluccio.[5] This "white-faced" fabric, with its "red-faced" but still black-ornamented concomitant, supervenes upon a coarse handmade pottery which is without any regular surface-facing at all and has incised or impressed ornaments only; and seems to come in, rather suddenly, in the latter part of the Neolithic period. It is itself of rough unlevigated clay, still wholly handmade; but the vessels have uniformly a fine superficial slip—either yellowish white, or warm brick-red, as described above—which is laid on thickly, and often smoothed or burnished afterwards.[6] On this slip, geometrical ornaments, often very elaborate, are executed in a warm red paint, consisting essentially of ferric oxide; and occasionally, as at Monte Tabuto,[7] in red and black together, or in a chalky white on a red ground.

Here we have, therefore, in the immediate neighbourhood of the North African area, a "white-faced" style which (1) is wholly handmade; (2) goes back to Neolithic time; (3) is accompanied by an elaborate geometrical ornamentation of very similar character to that of Kabylia; (4) presents indications[8] of descent from an original "red-faced" style; (5) is actually associated, like the Kabyle fabric, with a well-marked "red-faced" style, and with numerous intermediates; (6) betrays the same tendency to diverge into trichrome (red-black-and-white), which is to be traced in the local variants of Kabyle style. Further minor peculiarities which confirm this general resemblance are (7) a fondness for blocked zigzags of the series 26–29 in Pl. XX: 26 for example reappears exactly in the province of Girgenti[9] and 16 at Monte Tabuto[10]; (8) a peculiar elaboration, in the Syracusan province, of the over-shot line at the angles of the lozenge, such as underlies motives 33–4 *a*, *b* and 39, of the Kabyle style; (9) a series of marginal hooks and "lizard leg" motives (*cf.* 35*c*), which may be due, as Mr. Randall-MacIver indicates, to further elaboration of the "over-shot line," but which, in Sicily, are more

[1] Especially at Villafrati, where the white slip is also employed on rude painted figurines: Palermo Museum, unpublished.

[2] Published in *Bullettino de l'aletnologia Italiana*, XXI, Pl. iv and XXIII, Plate i.

[3] *B.P.It.*, XXI, Pl. vi; XXIV, Pl. xx, xxi.

[4] *B.P.It.*, XXIV, Pl. xxii.

[5] *B.P.It.*, XVIII, Pl. ii*a*, iii, 8*a*; vii, 21–28; and XIX, Pl. v, vi. For a fuller list of the Sicilian sites, see *B.P.It.*, XIX, p. 48.

[6] Orsi, *B.P.It.*, XIX, p. 39, ... "é] frequente l'impiego di lisciatori, e costante l'applicazione d'un sottile stratarello o pellicola di creta purgata." p. 41. . . . "I colori impiegati sons tre: il giallo pellucido o bianco spurco, ed il rosso, quando vivo, quando smorto, per i fondi, con una serie di toni intermedii: il bruno, pure, con una serie di gradazioni dovute alla diversa cottura (nero, castagno, caffé, di rado sanguigno) per i fregi di superposizione:" *i.e.*, *cream* or *white*, and *red*, for the ground colours, and a *brown* paint (varying from black to ruddy, for the painted patterns).

[7] *B.P.It.*, XXIV, Pl. xxi.

[8] Especially in its fondness for panel-structure, and for broad marginal bands of red between the designs; and also in the occasional use, already noted, of white paint on a red ground.

[9] *B.P.It.*, XXII, Pl. i.

[10] *B.P.It.*, XXI, Pl. vi.

probably to be connected, as Dr. Orsi suggests, with the rude phytomorphic experiments, of which the later Syracusan fabric supplies abundant evidence independently.

In Sicily, which is of comparatively small area, accessible from the sea on all sides, and unprovided with "eagle's nests" like those of Kabylia, in which an archaic culture might go on uncontaminated, this remarkable style of ornamentation came to a sudden end with the full establishment of the Bronze Age. To this sudden disappearance two circumstances contributed. On the one hand the subsequent native style is a fine red-polished bucchero, which shows marked points of analogy, in technique and form, with the bucchero styles of the Bronze Age in central and southern Italy, and represents an intrusion—cultural or even political—from that quarter. On the other, it was approximately at the same epoch that Sicily felt the influence of the wheelmade, naturalistically ornamented pot-fabrics of the Ægean: which out-matched the native style at the same time in technique and in decoration. The crisis is closely analogous to that which occurred in Cyprus about the same period, where the introduction of Mycenæan wheelmade pottery rapidly extinguished the native handmade geometrical of the middle part of the Bronze Age.

I think, therefore, that there can be very little doubt that in the Kabyle fabrics of Algeria we have a survival,—due, more than anything, to the inaccessible nature of the citadels in which alone it has been maintained—of a widespread painted style, of Neolithic origin, represented in perfection by the Sicilian fabrics, and postulated, even in South Italy, by the derivative vase-forms and ornaments, and the inclination towards "white-faced" technique, which characterize the old native fabric of Apulia.[1]

At first sight, it would still seem reasonable to suppose that these western styles of "white-faced ware" with their well-marked similarities of decoration, might be an original and independent development; and that the existence of the Sicilian fabric, adjacent to that of North Africa, might do away with the necessity for assuming a Levantine origin for the latter. A little consideration, however, will show that this is not necessarily the case, and that the Sicilian white-faced fabric stands even more in need of explanation than the other. The six fabrics of Kabyle pottery enumerated by Mr. Randall-MacIver[2] are not rigidly separated from each other, but present many intermediates, as indeed he has been careful to make clear.[3] The whole series, in fact, ranges between two well-marked and incompatible extremes; a *red*-faced, highly-burnished ware, with little or no decoration[4]—another red type[5] has its decoration in *white*—and a *white*-faced, unburnished (or merely *varnished*) ware, with copious decoration painted essentially in *black*,[6] though the ferruginous pigment is liable to go red when overfired. Of these two antagonistic techniques, the red-ware is already known to date back in North

[1] Patroni, *Monumenti Antichi*, vi, p. 377ff. Echoes of the same, also, at Narce, near Falerii, in South Etruria. *Mon. Ant.*, iv, p. 263, Fig. 124.

[2] See p. 245, above, and *Libyan Notes*, p. 57ff.

[3] *L.N.*, p. 57, 60, 62-3.

[4] Type (4) on p. 245.

[5] Type (1) on p. 245.

[6] Type (3) or (5) on p. 245.

Africa to the beginning of the Bronze Age: the white-ware on the other hand has not as yet been found on any early site in North Africa, and may probably be inferred to have arisen at a relatively later stage than the red-ware: and, if so, probably came into existence through some kind of suggestion from abroad. And that the latter is likely, is suggested also by the fact that the white-faced fabric has almost wholly failed to maintain itself uncontaminated, but gives rise to a long series of intermediates between itself and the red-ware. Now all this line of reasoning is equally applicable to the Sicilian fabric. Here too the white-ware forms a series of intermediates with the red-ware which accompanies it, leading eventually, as at Monte Tabuto,[1] to a regular trichrome style; it intervenes suddenly, and apparently full-formed, in an area which hitherto had known only unfaced and unpainted pottery; and it is accompanied by a new set of forms, and a new and more elaborate system of decoration But whereas in North Africa the red-faced fabric is certainly early, while the date of the first appearance of the white-faced is unknown as yet, in Sicily both the white and the red fabric appear practically simultaneously, and in great perfection: which would lead to the inference that the whole Sicilian style, so far from being indigenous to Sicily, is itself a marginal development of a group of styles which was already composite, and had been somewhat highly elaborated already elsewhere. That this "elsewhere" is not to be found to the northward is clear from the relatively degenerate character of the survivals already noted in South Italy: and the alternative conclusion is that the Sicilian style is itself dependent upon a North African style to the south-eastward; upon the prototype, in fact, of the modern Kabyle style, for the existence of which, in late Neolithic times, we have thus acquired a striking collateral argument.

Now whereas, in North Africa, the white-faced fabric has only maintained itself very locally, at Toudja and a few other sites,—while elsewhere it has given place more or less completely to intermediates between itself and the red-ware,—and whereas in Sicily, which we have now seen to be probably dependent, in the long run, on North Africa, we have the series of intermediates present throughout, until the premature disappearance of the whole style, it is in Cyprus alone, on the other hand—where the series of events is far more fully known, and where the foreign origin of the white-slip ware can be made out with tolerable certainty—that the "white-slip ware" maintained itself uncontaminated, not only over against the old "red-ware" of the earlier Bronze Age, but in face of acute competition with those other foreign fabrics, of more advanced technique and style, which were introduced by the Ægean settlers. All this would point to the conclusion that Cyprus lay close to, and eventually came within, an area in which the white-slip fabric was really indigenous; and in which consequently it was in a position to make a good struggle for survival: until, as we have seen, a complete revolution took place, in this inner area itself, which extinguishes the "white-slip ware" and leaves it no posterity at

[1] See p. 252, above, and *B.P.It.*, XXIV, Pl. xxi.

all. All this points to the Levant, and, in particular, to some part of the Syrian coast, as the focus of the "white-slip" style in the Mediterranean; the area of distribution of actual exports lying, as we have seen, from the Hellespont, by Thera and Athens, to Cyprus and Egypt; with the Cyrenaica, Malta, and South Italy as doubtful outliers, and Thessaly,[1] Sicily, and Punic Africa in the penumbra of its "zone of imitation." By whose means, and at what date it penetrated to the far west, we have already seen above (pp. 250–1).

The Geometrical Ornament of Kabylia, and its affinities.

We can now return to the question which confronted us before (251), how, if the "white-faced" Kabyle fabric preserves reminiscences of the Levantine mode of fabrication, it has failed to preserve the characteristic ornamentation of these imported models. And we may note here that if the Sicilian fabrics are to be regarded as derivative from North Africa, any explanation which fits the North African case must either fit the Sicilian also, or must be accompanied by an explanation of the discrepancy. Similar as the Sicilian and the Kabyle styles of decoration are in essentials, they yet differ markedly in the details of their vase forms and of their ornaments: and the question revives, whether any account can be given of the discrepancies. At this point it should be noted that both fabrics stand geographically on the margin of a large and, on the whole, homogeneous area, extending from the West African coast to the shores of the Red Sea. Over the whole extent of this area a very similar geometrical decorative art is practised at the present day. There is also every reason to believe that this art is also of great antiquity; though, as the objects on which it is represented are for the most part perishable, this latter point is not very easy to prove.[2] The three best known representatives of this widespread North African geometrical art are (1) the grass-plait and basketry of the Sahara; (2) the stained leather-work of the Tuaregs and Haussas; and (3) the stained camel-gut boxes and bottles of the Tuaregs, which come down from time to time to Algerian and Tripolitan ports. Of these, the basketry is to some extent put out of comparison by the difference of material and technique, and presents, besides, the largest number of peculiarities of design, though still with a considerable proportion of identical forms[3]; the leather-work *répertoire* comes remarkably close to that of the Kabyle pottery, and

[1] In the Neolithic settlement at Dimini: *cf.* Bosanquet, *Man*, 1902, 76. "It is handmade ware, with a polished buff surface covered with geometric patterns in a slightly glossy brown black paint." Compare also the rare fragments of "white-faced" fabrics from inner Asia Minor, discovered by Messrs. Anderson and Crowfoot; to which I hope to be able to return at greater length before long.

[2] The only *direct* evidence as to its antiquity, of which I am aware, is the occurrence in Early Iron Age (vi–viii cent.) tombs at Carthage, of ostrich-egg vessels with red painted ornamentation not unlike that of the egg-shaped camel-gut vessels. Delattre, *Nécropole Punique de la Colline de Saint Louis*, Lyon, 1896. (Extrait des *Missions Catholiques*), p. 32, fig. 4.

[3] Compare especially the recurrence of the basketry-patterns, on the Chawía textiles in *Libyan Notes*, Pl. VI, 1–3.

agrees also in the neglect of formal symmetry, and in the tendency to red- black-and-white trichrome; while the camel-gut vases, though their decorative *répertoire* is limited, repeat several characteristic motives—in particular the blocked zigzag (Pl. XX, 26), and the fringe of little blocked triangles round the margin of the principal motives, which is well shown in Plate XVIII, 11.

From the "common form" of this large group of design, it is the Sicilian, and particularly the Syracusan school, which deviates most markedly; and it deviates, as we have seen already, in the direction (1) of greater freedom, variety, and vigour of manipulation; (2) of great ingenuity in exploiting aberrations such as the overshot line, and the unsymmetrical panel with counterchanged tints; (3) of the introduction of curvilinear forms, some due perhaps to the bold handling which spreads a large simple design over a surface of great relative curvature, but some, also, apparently to frank imitation of plant forms.[1] This group of tendencies I am inclined to attribute to early contact with the naturalistic art of the pre-Mycenæan Ægean; not merely on the ground of general similarity of treatment, but because the influence of this Ægean culture can be traced independently (1) in actual imports of handmade but curvilinear-decorated vases in South Italy,[2] and even as far afield as Marseilles,[3] as well as Sicily itself,[4] and (2) in the occurrence of imitations of such vase-forms in all these areas, and in Sardinia also[5]; and this influence would naturally be much more strongly and directly felt round Syracuse on the east coast, than round Girgenti on the south-west; which corresponds exactly with the character of the resultant styles.

The peculiarities of the Sicilian school being thus, I think, sufficiently explained, we have finally to return to those of the Kabyle schools. That it is these, rather than the schools of the Saharan interior, which are divergent, hardly needs demonstration, in view both of the marginal position of Algeria, and of its proximity to the seafaring Mediterranean, which we have already seen to be responsible for the peculiarities of Sicily.

It is at this point that Mr. Randall-MacIver's comparison of the Cypriote geometrical art of the Early Iron Age comes in. The Mycenæan Age in Cyprus, with which, as we have seen, the Cypriote "white-slip ware" is closely connected in time, is succeeded, as in the Ægean, by an Early Iron Age with a markedly geometrical style of ornamentation. But whereas, in the Ægean, this Early Iron Age art shows close affinities with the incised geometrical art of the Early Iron Age of Central Europe, in Cyprus this analogy, though it certainly exists, is

[1] See especially *B.P.It.*, XIX, Pl. v, vi. Dr. Orsi foreshadows the same explanation as I propose here, but does not develop it in detail.

[2] Specimens in the Louvre (Salle D. 5), in the Fitzwilliam Museum at Cambridge (Leake Collection), and in the Royal Museum, Peel Park, Salford. To the last-named specimen I have referred already in *Man*, 1902, 26; and I describe it fully in *Man*, 1902, 96.

[3] Dumont, *Bulletin des Correspondances Helleniques*, VIII, p. 188, Pl. xiii (Marseilles [Borély] Museum, No. 1321).

[4] Orsi, *Monumenti Antichi*, II, Pl. i, 8 (from Cozzo di Pantano near Syracuse; Syracuse Museum): *cf.* an unpublished fragment (from Selinus) in the Palermo Museum.

[5] *Monumenti Antichi*, XI, Pl. xviii, 16, 18.

disguised, even more than in Crete for instance, by the persistence of late-Mycenaean traditions; by its proximity to a distinct geometrical art in Syria, the origin and extent of which is very obscure; and by its exposure, almost throughout, to the marginal influence of Egyptian and Mesopotamian conventions.

Far richer and more varied, then, than the geometrical art of the Ægean, it is the art of the Early Iron Age in Cyprus which, Mr. Randall-MacIver suggests, may supply the source of the peculiarities of the Algerian school of North African geometrical work.

That the Cypriote geometrical style of the VI—IXth centuries was within reach of the North African coast-lands is clear. The excavations of Père Delattre at Carthage[1] have shown that though, for its fine pottery, Carthage was dependent upon the Greek colonies in Sicily, the types of the common home-made pottery are derived almost without exception from the same series as those of contemporary Cyprus; while the few exceptions are paralleled, on the mainland opposite, by the pottery of the later strata at Tell-el-Hesy in Philistia. This group of discoveries, in fact, combines to show—what, without actual excavation in Phœnician sites, we cannot prove directly—first, that the non-Hellenic elements in the ceramic art of the Early Iron Age in Cyprus (which are also the elements which are common to the Cypriote and the Philistine pottery) may be described, with some probability, as Phœnician; and secondly, that, in their pottery at all events, the Carthaginians maintained fairly close intercourse—as we should expect *a priori*—with their kinsmen on the Syrian coast. None, it is true, of the specimens actually excavated at Carthage can compare, in finish or elaboration, with the best Cypriote examples; but the examples obtained by Père Delattre are already numerous enough to justify the conclusion that, in essentials, the scheme of decoration was the same in the Phœnician Levant and in Punic Africa; that, in fact, the fine pottery of Cyprus may be taken, in regard to its non-Hellenic elements at all events, as a fair illustration of the pottery of Phœnicia during the period of the Punic colonization: and consequently of the ceramic models which prevailed on the North African coast during the centuries preceding the sixth. No foreign pots, it is true, have been actually found as yet, so far as I know, in the interior of Punic Africa; but for these purposes the area may fairly be said to be still unexplored: and meanwhile the fact of the importation of foreign objects, other than pottery, is illustrated by the fibulæ of "Celtic" type which have been found at El Kef near Constantine.[2]

The resemblances which can be detected between the Cypriote geometrical style and the style of the Kabyle vases, though they are most apparent in the fabric of Toudja, are not by any means confined to it, but run through all the more elaborately painted varieties of Kabyle pottery. It will be convenient, however, to confine the enquiry almost wholly to the fabric of Toudja and vases

[1] Delattre, *Nécropole Punique de la Colline de Saint-Louis*, Lyon, 1896. (Extrait des *Missions Catholiques*.)

[2] A. J. Evans, *Proc. Brit. Ass.*, 1899 (Dover), p. 872.

of similar make: and in view of the great abundance and ill-published condition of the Cypriote evidence, to take as a standard the analysis of the ornamentation of the Kabyle vessels on Plates XVIII and XIX, and apply the scattered Cypriote references to these. The table which follows gives, accordingly, in the first column, the reference numbers of the ornamental motives extracted in Plate XX; in the second, the reference numbers of the vessels in Plates XVIII and XIX on which each motive occurs; in the third and fourth, the occurrence or non-occurrence of each motive in the Sicilian provinces of Girgenti and Syracuse respectively; in the fifth, the occurrence or non-occurrence of the same motives on Early Iron Age pottery in Cyprus; and in the sixth, the museum numbers or catalogue references to the Cypriote analogies.[1]

[1] The following abbreviations are employed :—

CMC = Myres and Ohnefalsch-Richter. *Cyprus Museum Catalogue.* 1899.
KBH = Ohnefalsch-Richter. *Kypros, the Bible, and Homer.* 1892.
LPC = Louis P. di Cesnola. *Cyprus: its Cities, Tombs, and Temples.* 1877.
APC = Alexander P. di Cesnola. *Salaminia.* 1882. (Specimens mostly at South Kensington.)
Brit. = British Museum (Dept. of Graeco-Roman Antiquities: mostly unpublished).
Brit. (Exc.) = Results from Amathus in 1894, published in *Excavations in Cyprus*, 1900.
Ashm. = Ashmolean Museum, Oxford (mostly unpublished).
Lou. = Louvre Museum, Paris.
NY = Metropolitan Museum, New York (Louis P. di Cesnola's collection); for reasons which will be appreciated by students of Cypriote antiquities, I have confined myself to examples which I have verified personally.
Const. = Imperial Museum, Constantinople.
PR = Pitt-Rivers Museum, Oxford (additional examples of the same Kabyle fabric, presented recently by Mrs. Eustace Smith).

TABLE OF KABYLE ORNAMENTS, WITH SICILIAN AND CYPRIOTE ANALOGIES.

Reference No. in Plate XX.	Reference No. of Vase in Plates XVIII–XIX.	Girgenti.	Syracuse.	Cyprus.	Cyprus: References to Early Iron Age Analogies.
1	2	....	—	—	*CMC*, 1143; *APC*, fig. 238; *LPC*, xlvii, 40.
2	18	....	....	—	*Brit.* (*Exc.* fig. 151, 6; 152, 3).
3	2, 4, 17, 18, 21	....	—	—	*CMC*, 329, 442, 489; *Brit.* C 244, 250, cf. 130, 259;
4	16	....	....	....	[*Ashm.* Cypr. 442; *NY*, 1181; *Const.*
5	1, *PR* (var.)	....	....	....	[545; *KBH*, cli, 11, clxx, 10d.
6	4	—	—	—	Cypr. has the *single* lattice commonly (as 7), but
					[does not multiply the lines.
6*a*	18	....	—	—	*CMC*, 1111; *NY*, 981 (variant); *NB. Syrac sp. varies*
					[*slightly.*
7	16, 20	....	....	—	*CMC*, 1175, 1176*b*, 1177; *Brit.* (*Exc.* fig. 151, 4).
8	1, *PR* (var.)	....	....	....	
9	7, 15	....	—	—	*CMC*, 1153 (var.); *Brit.* (73-3-20-101); *Vienna*,
10	19	....	....	....	[62 (var.); *Const.* 1086 (var.); *Carthage* (var.).
11	14	—	....	....	
12	9, 10	—	....	....	*NB. Girg. is a variant with lozenge cross-hatched*
					[*instead of blocked.*

Reference No. in Plate XX.	Reference No. of Vase in Plates XVIII–XIX.	Gigenti.	Syracuse.	Cyprus.	Cyprus: References to Early Iron Age Analogies.
13	2, 5, *PR*	—	—	—	*CMC*, 1118, 1169, 1190; *Brit.* C 254, 285, 380;
14	20, 21	....	....	....	[*NY*, 981, 1033, 1137, 1181;
					[*LPC*, xlvii, 40; *APC*, fig. 238.
15	4, 19	....	—	—	*CMC*, 1156, and commonly.
16	4, 16	....	—	—	*CMC*, 1167.
17	1, 2, 4, 16, 17, 19, 21, *PR*	—	—	—	*CMC*, 1140; *Const.* 949, and commonly.
18	2, 8, 19, 21, *PR*	....	....	—	*NY*, 952, 1873; on triangle, 623, 823, 1873.
19	10	....	....	....	
20	2, 4, 18, 20	....	—	—	*Brit.* C 178.
21	11	....	....	—	*APC*, xix, 28.
22	15	....	—	—	*CMC*, 910, 911, 919, etc.; *Brit.* C 112, 113, 116, etc.;
23	16, 17	....	....	....	[*Vienna*, 74; *NY*, 967, 1925; *KBH*, xcviii, 1*a*;
24	17	....	—	....	[clii, 21; clxxvii, 2; clxxix, 1; very common,
25	20	....	—	....	[and characteristic of *earliest* Iron Age in Cyprus.
26	1, 2, 16, 17, 18, 20, 21	—	....	—	*KBH*, xcviii, 1*e*.
27	1, 17, 19, *PR*	....	—	—	*Brit.* (*Exc.* fig. 151, 6; 152, 1).
28	1, 2, 11, 19, 21	....	....	—	*Brit.* (*Exc.* fig. 165, 1).
29	6, 7, 11	—	....	—	*CMC*, 989, 990; *Vienna*, 52, 83; *NY*, 110, 686, 855,
30	19, 21	....	....	....	[916; *KBH*, clxxviii, 1; *Brit.* (*Exc.* fig. 151, 6).
31	21	....	....	....	
32	12	....	....	....	
33	5, 11, 13, 14	....	....	—	*CMC*, 1115, 1140; *NY*, 952 (var.), 1894, 1921;
					[*APC*, fig. 242; *Brit.* (*Exc.* fig. 151, 1, 2, 4).
34	5	—	....	—	*CMC*, 1115, 1123, 1142; *NY*, 1896, 1899; *LPC*,
					[xlvii, 40.
35	7 (var.), 11 (var.)	....	....	—	*CMC*, 1130, 1136, 1140; *NY*, 676; cf. *Brit.* C 11,
					[15; *Vienna*, 75; *APC*, xix, 28.
a	11	....	—	—	*CMC*, 1115, 1141, 1142; *NY*, 1925.
b	11	....	....	—	*LPC*, xlvii, 40 (var.).
c	13	....	—	....	
36	20	....	—	—	*Vienna*, 101; *KBH*, ccxvi, 25*a*.
37	5, 6, 7, 13, 14	—	....	—	*CMC*, 901*b*, 966, 1197; *Brit.* C 102, 175; *Vienna*,
38	12	....	....	....	[45; *NY*, 678; *KBH*, clvi, 4.
39	14	....	....	—	*APC*, xix, 31.
40	6, 16, 20	....	....	—	*CMC*, 1115, 1128, 1136, 1196; *NY*, 1058, 1139,
					[1920; *Const.* 102; *APC*, xix, 11.
41	2	—	—	—	*CMC*, 1166; *NY*, 967.
42	18	....	....	—	*CMC*, 1197.
43	2	—	....	—	*KBH*, xcviii, 9; 1*d*.
44	5, 7, 11	....	—	—	*CMC*, 329, 438, 447, 967, 1128, 1169; *NY*, 233, 622,
					[671, 686, 1894; *Vienna*, 45; *Const.* 949;
					[*LPC*, xlvii, 40; *KBH*, clxxiii, 19*a*; ccxvi, 31.
45	5, 6, 7, 10, 12, 13, 14	—	—	—	*CMC*, 438, 901*a*, *b*, 1128, 1142, 1143, 1170; *Vienna*,
					[63; *Const.* 949; *LPC*, xlvii, 40.
46	3	....	....	—	*CMC*, 967, 1041, 1042, 1105; *NY*, 1920; *APC*,
47	11, 12	—	....	—	*CMC*, 437. [xix, 6
48	13, *PR*	....	—	....	
49	9, 10, 13, 14	....	....	—	*CMC*, 901*b*, 994, 1040, 1046; *NY* 677; *Berlin*, 65 (var.)
50	5, 12, 13	....	....	—	*Vienna* (1895); *NY*, 671; *APC*, fig. 242–3.
51	6, 10 lozenge, 13, *PR*	....	—	—	*CMC*, 1108, 1111 (variants); *Vienna*, 34; *NY*, 987,
					[1220, 1367 (var.), 1950; *APC*, fig. 241.
52	6	....	....	—	*LPC*, xlvii, 40.
53	20	....	—	....	*NB. the Syrac sp. is a mere oblique cross of lines*
54	20	....	....	....	[*like* 25.
55	20	....	....	....	
56	4	....	....	....	
57	5, 6, 8, *PR*	—	—	—	*CMC*, 1141; *Vienna*, 64; *NY*, 537, 1926; *LPC*,
					[xliv, 33; *APC*, fig. 238, Pl. xix
					[28; *Brit.* (*Exc.* fig. 155, 4).

In addition to these resemblances of ornament, the following similarities of form may be noted as tending to confirm the inference that it was a style of *pottery*-ornamentation which was being imitated.

(1) With the rim of Nos. 1, 2, and 4 and of Nos. 17–21, compare *CMC*, 1108–1135, 1140, 1141, 1170, 1175, and numerous others not figured in the plates of that book. This rim does not seem to recur in Hellenic, or Græco-Roman, or Arab pottery; on the other hand it is found regularly in the Punic pottery at Carthage (unpublished).

(2) With the bulged neck of Nos. 1, 2, and 4, compare *CMC*, 982, 1073; *Brit.* C 122, 124, 125; *Ashm.* Cypr. 442; *KBH*, lxxiv, 5, and the whole class of vases described in *CMC* as "handle-ridge jugs" (*CMC*, 990, 994, 1005, 1006, 1073, 1091, and Index, s.v.; *Brit.* C 192, *LPC*, p. 405, fig. 17) It begins in the Bronze Age, as a gourd form (*CMC*, 255; *Brit.* A 58, C 11, 15): disappears in the sixth century B.C.; and does not reappear in pottery of Hellenistic styles, except on the Syrian coast, where it is endemic from the Bronze Age to modern times. It is common in the Punic pottery at Carthage.

(3) With the peculiar set of the handles, hardly above the centre of gravity of the vessel, in Nos. 2 and 17–21, compare *CMC*, 1188, 1190, 1283; *Brit.* C 189; *KBH*, clxxiii, 19*h*. This form also is endemic on the Syrian coast; but as it also appears in the Sicilian fabric, its importance must probably be discounted.

(4) For the small horn or thumb-rest, on the handles of Nos. 7, 8, 16, 18, compare *CMC*, 901, 901*b*, 1101, 1103, 1141; *LPC*, Plate II; and very commonly. In Cyprus this "horned handle" comes right through from the pre-Mycenæan Bronze Age (*CMC*, 91, 92, 111, 126, 209, 344, and Index, s.v.); but it is also of early occurrence in the Early Bronze Age of the West (*e.g.*, at Castelluccio, *B.P.I.* XIX, Plate v, 1, 18, 32); so it need not be of Levantine origin exclusively.

(5) With the swollen body-form of No. 2 compare *CMC*, 1283.

(6) With the form of No. 15 compare *CMC*, 937.

In view of this long series of correspondences between characteristically Cypriote and characteristically Kabyle motives, it seems reasonable to infer that some part at all events of the peculiarities of Kabyle vase-form, and also of Kabyle geometrical ornament, originated from contact with a geometrical style introduced from the Levant by Punic settlers between the ninth and sixth century B.C. True, the imported vases and the local Punic fabrics were wheelmade; and in the lowlands the wheelmade wares probably extinguished the handmade fabrics as completely and as rapidly as had been the case in Bronze Age Sicily; but it does not seem impossible that, in the highlands of the interior, geometrically-ornamented vessels may have been traded, and imitated, without this acquaintance with the finished product involving the discovery of the process of manufacture.

It would thus be possible to explain the transference, into a handmade fabric, of wheelmade forms like the necks and rims quoted above, as well as of elements of surface-decoration, when the two styles of ornament were in any case so nearly allied.

Since Punic times, on the other hand, there has been no great decorative ceramic style in close contact with the North African coast-land; and consequently no supersession of the fashions introduced, or emphasized, by the Punic culture of the Early Iron Age. Sicilian Greeks came not; and neither Romans, nor Arabs brought with them any great wealth of decorative pottery; and we have already seen, in the case of Tripoli, how such fabrics as they did introduce have failed to touch the traditional native process, except when they were strong enough to extinguish it altogether.

The net result, then, of our investigation may be summed up as follows:—

(1) The handmade fabrics of Kabylia are survivals from pre-Carthaginian times; for they are handmade, whereas the Punic settlers of the Early Iron Age came from a wheel-using area, and brought the wheel-fabric with them.

(2) The red-faced fabrics of Kabylia descend directly from the widespread red-ware of the Neolithic Age; and present marked analogies with the white-painted red-ware of pre-dynastic Egypt.

(3) The geometrical decoration of Kabylia descends ultimately from the endemic geometrical art of North Africa; but presents signs of contamination with a non-African style.

(4) The geometrical decoration of chalcolithic Sicily descends likewise from the geometrical art of North Africa; the influence of which seems also to be traceable even in Italy and Liguria: but in Sicily marked deviations have resulted from contact with the curvilinear art of the Ægean Bronze Age.

(5) The white-faced fabric of Sicily seems to have been introduced ready made from North Africa: and that of Kabylia to have resulted from contact, in the later Bronze Age, with the "white-slip ware" of the Levant: this contact being probably due to pre-Carthaginian adventurers from the Syrian coast.

(6) The decorative scheme of the "white-slip ware" was not relatively rich enough to influence the endemic North African style: the fabric, however, being handmade was capable of *influencing* the native fabric without extinguishing it. Hence the introduction of a group of handmade "white-faced" fabrics in the West.

(7) The introduction of wheelmade fabrics in the West resulted (*a*) in Sicily, in the total extinction of the painted handmade fabric early in the Bronze Age: (*b*) in North Africa, in the extinction of the handmade fabrics in the Early Iron Age in the lowlands. The inaccessible character of the interior, however, permitted the survival of the handmade fabrics of Kabylia.

(8) The fact, however, that at the period of colonization Punic art (as illustrated in Cyprus, on the Philistine coast, and at Carthage) was itself elaborately geometrical, permitted much contamination of the painted styles, and even of the pot forms, of Kabylia, without involving the extinction of the handmade fabrics in their highland citadels.

(9) No ceramic invasion has occurred since Punic times competent either to extinguish or to contaminate the survivals of the old North African ceramic which outlived the Punic settlement.

The tentative and hypothetical character of this investigation will have been apparent, I hope, throughout; and I venture to conclude by putting a few questions which will summarize the points of greatest obscurity, and perhaps may serve to elicit definite answers from those who know North Africa and its neighbourhood in detail, or have opportunities of making further enquiries.

(1) What direct evidence exists, or can be found, as to the history of the "white-faced" style in North Africa? Note should be taken of the occurrence of such fabrics of pottery on sites of every period, both within and without the modern limits of the style.

(2) What styles and fabrics of pottery are found on the sites of the earlier Punic settlements: especially round Hadrumetum, Hippo Zarytus, Utica, and Hippo Regius. At Carthage too search should be made, even on the surface, for Punic and pre-Punic potsherds: and for earlier tombs than those excavated hitherto.

(3) Search should be made in Eastern Algeria, and in Khoumiria, for traces of former or recent extensions eastward of fabrics analogous to those of Kabylia: and in the west of Sicily, for westward extensions of the art-province of Girgenti.

(4) In Malta, systematic observation, and if possible some excavation, on the early sites in the Bengemma Hills, and round Rabato; as well as in the neighbourhood of Hagiar Kim and Marsa Scirocco. Especial note should be taken of white-faced fragments like those in the Rabato Museum.

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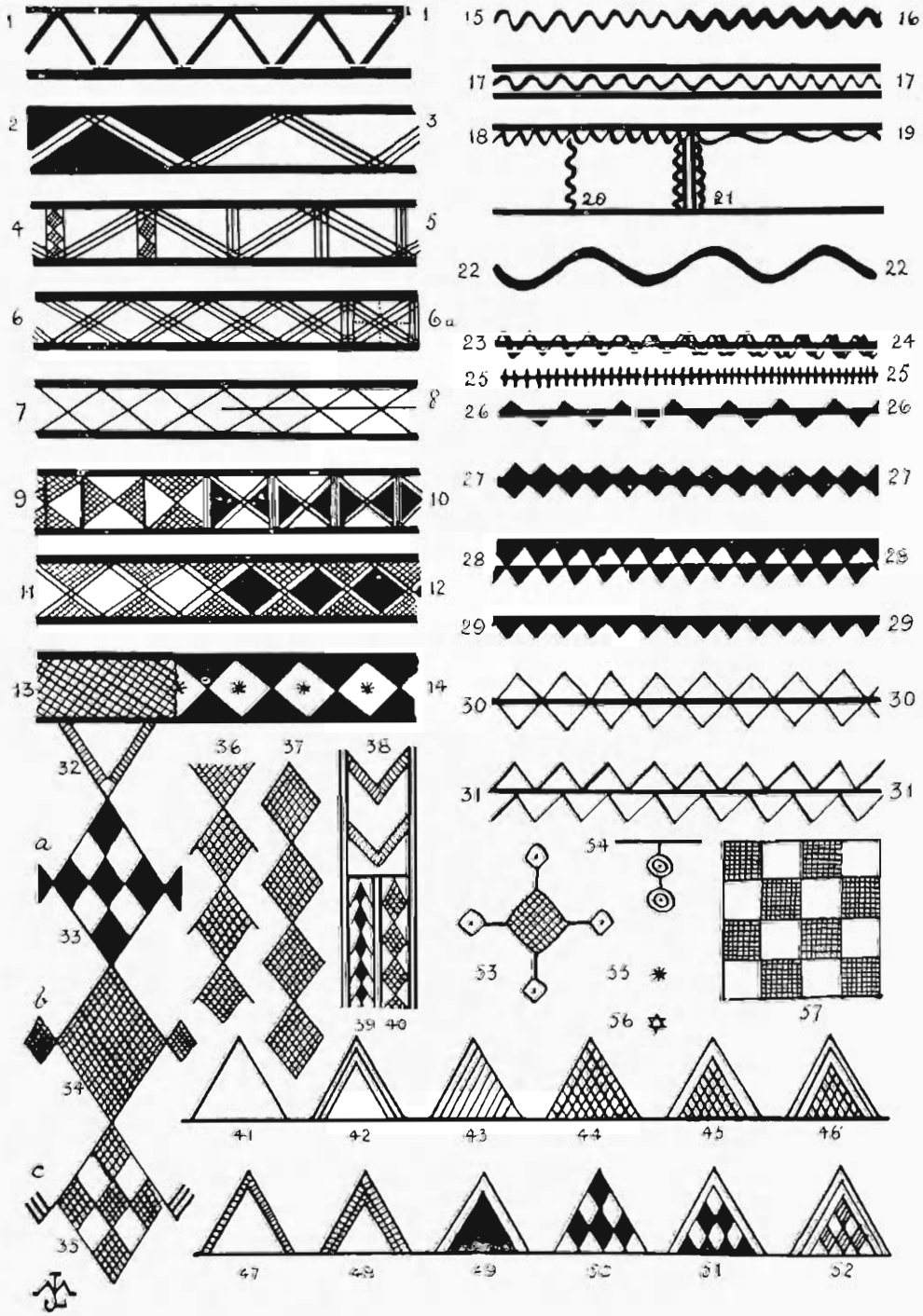

DIAGRAM OF THE ORNAMENTS OF THE WHITE FACED FABRIC OF KABYLE POTTERY.

N.B.—In No. 52 the small lozenges should be cross-hatched as in No. 35.