

## CHAPTER XI

### THE PROBLEM OF THE PALMETTE

Only after having described the history of plant design in the Aegean and after having filled in the background of connections traceable between Egypt and Northern Mediterranean lands during the Middle and New Kingdoms, are we fully equipped to discuss the problem of the palmette. We have seen that, in view of the influence exerted by the Aegean on some features of Egyptian art, there were relatively few points of contact in plant ornament. In this field the greatest importance of the Aegean lies in the possibility that it may shed some light on the origin of the palmette. It has already been demonstrated that, save for the three-leaved and fan palmettes, the Eighteenth Dynasty plant hybrids are built up of elements that are thoroughly Egyptian in character. In addition, the additive process of composition by which the designs were formed has been revealed as a feature closely interlocked with typical Egyptian cultural traits: the important place which flowers occupied in many different activities, the manner in which actual blooms were treated by the florists, and the respect which the Egyptian designer retained for the identity and representative character of individual motives. The additive principal of Egyptian design can explain the process of the construction of the palmette, as well as that of the other South-flower hybrids.

The long history of the South-flower in Egypt is clear. In no other country of the ancient Near East is the stage so well set for the appearance of the palmette as in Egypt. The only unexplained features are the sources of the crowning elements, the group of three "leaves" and the fan-shaped sheath, the additions which produce the palmettes out of the South-flower. It is singularly unfortunate that here, at the birth of one of the most widely used and important ornamental motives of the Near East and of the Western European world, we face a serious problem, almost amounting to a gap in the story of plant design. There are no good Egyptian precedents for these crowning motives. Moreover, the first

example of a palmette, on a dagger of Ahmose (CL 1<sup>1</sup>), occurs in a context so closely interwoven with foreign elements that this ornament has been almost automatically counted among the elements extraneous to Egypt. The most striking of these exotic features are plainly derived from the Aegean and are so strong in the case of the dagger of Ahmose that this weapon has even been considered a direct import from Crete.<sup>2</sup> Thus the possibility of Cretan influence in the development of the palmette is the most important point at issue in the subject of the interaction of Minoan ornament and Egyptian plant design.

### THE AAHOTEP BURIAL GROUP

The fact that the South-flower perianths of the Ahmose dagger are purely Egyptian in form is probably sufficient to disprove the suggestion that the dagger was a Cretan import. Nevertheless, before proceeding further, it is advisable to summarize the respective shares taken by foreign and native traditions in the production of the *beigaben* of Aahotep.

Although she was the wife of Seneferu, Ta'o II of the Seventeenth Dynasty, Aahotep lived on into the reign of her younger son Ahmose, the founder of the Eighteenth Dynasty. He appears to have provided for her burial.<sup>3</sup> It was discovered by a native gang, working by order of Mariette, but without any supervision. The coffin was opened by the workmen. Despite these unfavorable circumstances, Winlock, who has studied the group and the circumstances of its finding in detail, believes that none of the important objects of the original find have been lost, but objects belonging to Kamose have been wrongly attributed to Aahotep's burial by von Bissing.<sup>4</sup> The rishi coffin in which the queen had been buried compares closely to that of her husband Seneferu, Ta'o II and, according to

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<sup>1</sup> CL + number refers to number in the Typological Check List of the South-Flower hybrids at the beginning of Chapter VII.

<sup>2</sup> Cf. PM I, 715, where Evans concludes that the details and spirit of the animal scene must prove it to be Minoan work (also PM IV, 527). Edgerton considers that the hieroglyphs look unEgyptian and is "inclined to believe that the blade in its entirety is of Minoan workmanship," though possibly made by a craftsman living in Egypt (JAOS, LVI [1936], 188).

<sup>3</sup> Winlock in JEA X (1924), 250-1, n. 3.

Winlock, was made at the same time.<sup>5</sup> The majority of the grave goods were given by Ahmose: boat models, a fan, and an axe bear the name of Kamose, the last ruler of the Seventeenth Dynasty. All of the objects are completely Egyptian in design except for the axe and dagger of Ahmose, and a many-membered necklace. As we have already seen, the animals on one side of the Ahmose dagger, and the individual beasts of the necklace provide the first true examples of the flying gallop in Egypt, which was a new feature imported during the Second Intermediate period and the beginning of the Eighteenth Dynasty. On the other hand, although the rows of running spirals of the necklace mark the emergence of this motive from the narrow field of the scarabs, the pattern itself was not a recent introduction into Egypt, but had been well known during the Twelfth Dynasty. The rocks that hang downwards and provide an enclosed landscape setting for the swiftly running beasts of the dagger are strikingly Minoan and without any precedent in Egypt. A motive whose foreign character is just as marked as any on the dagger is the Syrian griffin that appears in a graceful Cretan cast on the lower part of one side of the axe blade.<sup>6</sup> Both the dagger and the axe are worked in the niello technique which seems to have spread to Egypt and the Greek Mainland from Syria.<sup>7</sup> The Egyptian character of the axe has never been questioned. Besides hieroglyphic inscriptions, it bears typical Egyptian motives executed in good Egyptian style. Above the griffin Pharaoh stabs a defeated enemy. On the other side of the axe blade the counterpart of the griffin is the genuine Egyptian male sphinx, and above, heraldic plant clumps support the "baskets" on which perch the vulture goddess Nekhebet and the cobra goddess Buto. The third motive on this side is the kneeling figure

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<sup>4</sup> Ibid., 252-4.

<sup>5</sup> Ibid., 251, n. 5.

<sup>6</sup> Cf. Fimmen, *Die Kretische-Mykenische Kultur* (Leipzig, 1924), pp. 205-6 for a discussion of this beast and its Aegean parallels. Here, as in the case of the flying gallop, there appears to be some evidence to indicate that the motive had already been introduced into Egypt before the beginning of the Eighteenth Dynasty. Three scarabs, presumably of Hyksos date, show griffins with curled crests (Figs. XII.21-23). A fourth scarab with a fairly straight-crested griffin was found at Tell Beit Mirsim in stratum E, a level contemporary with the early Hyksos (Fifteenth Dynasty, Fig. XII.24), but in view of its provenience cannot be used as additional proof for the presence of the griffin in Egypt during the Second Intermediate Period. It has been demonstrated that this type of griffin first appears in Syria on seals of the First Syrian group, and apparently spread from there to Crete (BSA XXXVII [1936-7], 116-30).

holding the saw-edged stalks of eternity. The pommel decoration, too, consisting of the triple papyrus and South-flower clumps, is very Egyptian. Accordingly, it appears that the argument for the foreign origin of the dagger is greatly weakened in view of the fact that an extremely exotic motive was reproduced on the Egyptian axe in the foreign niello technique.

The dagger, whose pommel is formed of four female heads and whose haft is embossed on each side with a bull's head, finds no exact parallels. However, the heads of the women are Egyptian in cast, and pommels shaped into figural form, usually falcon heads, occurred in Egypt.<sup>8</sup> There appears to be no reason for considering the bucranium unEgyptian. The top of the pommel is decorated by a typical Egyptian quatrefoil and the shaft of the handle is covered by rectangles with triangular inlays. This design seems to be ultimately derived from a constructional pattern of lacing, which occurred regularly on handles of the *ntr* emblem<sup>9</sup> or on walking sticks,<sup>10</sup> but it was used to decorate a number of

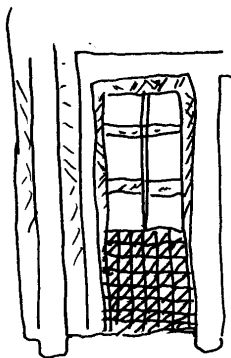


Fig. XI.1

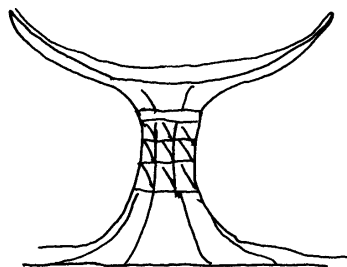


Fig. XI.2

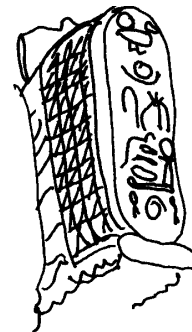


Fig. XI.3

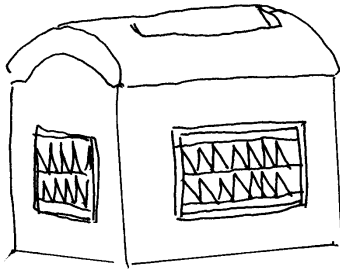
objects ranging in date from the Middle Kingdom to the earlier New Kingdom. Parts of simplified false doors on a Middle Kingdom painted coffin are decorated by such

<sup>7</sup> BSA XXXVII (1936-37), 115-6.

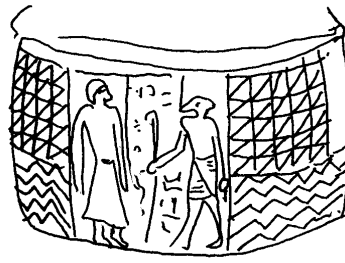
<sup>8</sup> MÄSberl., I, 23, Fig. 13, k, l.

<sup>9</sup> *Ptahhotep I*, Pl. XIV, 324. *Beni Hasan III*, Pl. V, 75. Griffith, *A Collection of Hieroglyphs* (London, 1898)Pls. III, 26 (Deir el Bahri), VIII, 114 (Tehutihotp). Lacau, *Sarcophages antérieurs au Nouvel Empire I* (Cat. Caire), Pl. XLVII, 374 (coffin 28087; Cf. lacing on ibid., 375, 376).

<sup>10</sup> *Men. et al.*, Pl. X (86). *Ken-Amun I*, Pls. XXXVI, CXI, D.



**Fig. XI.4**



**Fig. XI.5**

triangulated rectangles (Fig.XI.1).<sup>11</sup> They occur on the support of a Seventeenth Dynasty head rest (Fig. XI.2).<sup>12</sup> In the same group as the dagger itself, there was also a bracelet with this design on the sides (Fig. XI.3).<sup>13</sup> Later in the Eighteenth Dynasty the whole side of a chest carried in the funeral procession of Rekhmire is covered by such a pattern,<sup>14</sup> and is paralleled by a small toilet chest in the Berlin Museum (Fig. XI.4).<sup>15</sup> The shafts of baldachin pillars were regularly ornamented by patterned bands. One of these occurring in the tomb of Amenmose is covered with triangulated rectangles.<sup>16</sup> To these examples may be added a conical faience box in the Louvre and a stuccoed card board specimen of the same shape from T. 1372 at Deir el Medineh (Figs. XI.5).<sup>17</sup> One has a nymphaea cover, the other a nymphaea rosette on the lid, and both have sides decorated with triangulated rectangles. There are other features which appear on the midrib of the dagger with the animal scene and seem to be Egyptian rather than Aegean. A stiff sprig is set arbitrarily in front of the fleeing bull. Three sedentary grasshoppers bring the scene of violent action to a sudden end. Since the unperturbed insects are placed facing the galloping animals, they almost completely nullify the impression of movement engendered by the wild onrush of lion and bull. A comparison with the daggers from the Shaft Graves of Mycenae which are decorated by unified scenes dominated by the maintenance of swift movement make

<sup>11</sup> Fig. XI.1 = Lacau, *op. cit.*, Pl XVI, 28032 (Dira Abu'n Naga 11).

<sup>12</sup> Fig. XI.2 = Petrie, *Qurneh* (London, 1909), Pls. XXII, top, middle; XXV, top right.

<sup>13</sup> Fig. XI.3 = JEA X (1924), Pl. XVII, bottom, left.

<sup>14</sup> *Rekhmire*, Pl. XVIII (Qurna 100; Tuthmosis III-Amenhotep II).

<sup>15</sup> Fig. XI.4 = MÄSBerl. I, 30, Fig. 16, Berlin 11381. No provenience or date are given for this object, but it is used as a comparison for another chest from an Eighteenth Dynasty burial at Thebes.

<sup>16</sup> *Men. et al.* Pl. XXXIII (Qurna 42; Tuthmosis III [?]).

apparent the essential discordances between the Aegean creations and the midrib of the Ahmose dagger. No Aegean artist would have dreamed of letting his figures race madly against an unyielding obstacle. Aside from the compositional features involved, the figures of the grasshoppers can be paralleled by the insects on two scarabs, approximately dated by Petrie to the reign of Hatshepsut.<sup>18</sup> On the midrib of the other side of the dagger, the palmettes are peculiar in that each springs from the point of a chevron. This feature is explained by the decoration on a sword of Kamose, elder brother of Ahmose. Around its socket runs a chevron line from every point of which springs a South-flower.<sup>19</sup> The narrow midrib of Ahmose's dagger was simply filled by segments of the Kamose design. Finally, I am informed by Dr. Frankfort that the hieroglyphs of the dagger need not be considered as products of a non-Egyptian workman, since they do not appear to be awkward imitations as are found, for instance, on objects from Byblos tombs contemporary with the Twelfth Dynasty. The variety of indigenous characters possessed by the dagger is sufficient to prove that it could not have been made by a foreigner, and in dealing with animal design, we have already observed other examples of Egyptian crafts showing as strong traces of Cretan influence. Moreover, it is clear that we must not *a priori* judge the palmette on one midrib of the dagger to be imported from outside merely because some other motives were of foreign derivation. Just as the Egyptian sphinx balances the exotic griffin on the axe, so it may be possible that the Aegean animal scene of the dagger is balanced on the other side by an indigenous floral motive.

It is the Aegean that exerted the strongest influence on the makers of the Ahmose dagger and axe, despite the fact that Syria appears to be the ultimate homeland of both the niello technique and of the griffin. When Syrian materials are investigated, we shall see

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<sup>17</sup> Fig. XI.5 = Wallis, *Egyptian Ceramic Art* (London, 1900), p. 11, Fig. 20. Bruyere, *Deir el Medineh* 1934, Pt II (FIFAO, XV [1937]) p. 56, Fig. 27 (T. 1372).

<sup>18</sup> Petrie, *Button and Design Scarabs* (London, 1925), p. 25; Pl. XIV, 935, 936.

<sup>19</sup> Von Bissing, *Ein Thebanische Grabfund* (Berlin, 1900), Pl. XII, 10 = *Illustrated Catalogue of Egyptian Art*, Burlington Fine Arts Club Exhibition, p.99; Pl. XXIII, no. 29 = PM IV, 843, Fig. 824 (Bronze; design inlaid in gold).

that they offer examples of plant hybrids, some topped by three leaves,<sup>20</sup> but all those at present known are later than the beginning of the Eighteenth Dynasty. The main elements out of which the Asiatic designs are constructed, the South-flower and Egyptian volute, are those deeply rooted in Egyptian tradition. Moreover, the Syrian patterns are almost all marked by an extremely derivative character when they are examined in comparison with Egyptian forms. In view of the scarcity of materials offered by Syria, the assumption could be made that earlier forms of plant decoration, at present completely unknown, were current in the first half of the Second Millennium. However, we cannot deal with such an imponderable possibility, and all the available evidence indicates that Asia produced no floral designs before the operation of Egyptian influence in the later Second Millennium.<sup>21</sup> No assistance in the production of the palmette is to be gained from across the eastern borders of Egypt.

#### MINOAN TANGENTIAL LOOP DESIGN AND EGYPTIAN DROPS

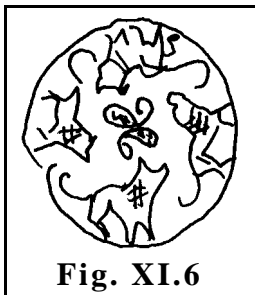
The Aegean remains as the only other territory where the missing origins of the palmette foliage may be sought. We have not found any comparable designs in our survey of Aegean ornaments which were either actually derived from plants or had acquired a secondary vegetal character. It is in one of the abstract spiraliform phases of Aegean pottery, the Kamares ware of MM II A, that there appears a series of strikingly palmette-like designs, a few of which furnish approximations to the Ahmose palmette. These pseudo-palmettes are closely related to the characteristic MM class of tangential loop

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<sup>20</sup> *Babylonica*, XI (1929), Pl. IV, 6 (Ras Shamra; Third Syrian seal; crown of South-flower hybrid and subsidiary filling motive). Syria, XV (1934), Pl. XV (Ras Shama; gold bowl, plant hybrids). Three leaves, serving as inconspicuous filling motives occur in Syria in varied chronological contexts and on a miscellaneous array of objects: *Ugaritica* I, 110, Fig. 101; Pl. XXII (Ras Shamra; "Mitannian" axe); *Megiddo Ivories*, Pl. XI (Hittite plaque; simple South-flower hybrid); *Ant. J.*, Vol. XIX (1939), Pls. XIV, 4, left (Atchana; ivory "Hittite" plaque; filling motive as on previous object), XVI, 1, top middle (Atchana; "Subartu" painted chalice). Starr, *Nuzi* II (Cambridge, 1939), Pls. CXXVIII, H (center ornament of fillet worn by Hathor head in mural), CXXIX, D (South-flower hybrid; mural). These assorted examples are later than the Ahmose palmette, nor are they representatives of one definite motive. Simple three-leaved filling motives could easily be produced independently of each other.

<sup>21</sup> These statements will be substantiated in detail in chapters XII and XIII.

designs. It now appears possible to make out a fairly convincing case for connecting such patterns with the hitherto unexplained drops commonly attached to New Kingdom South-flower hybrids. These drops first appeared on the design of 'Aqhor's gaming board and are also present on the Ahmose palmettes. Thus a discussion of tangential loop motives will accomplish two purposes; it will explain a fairly mysterious feature of Egyptian hybrids,<sup>22</sup> and also furnish the background which establishes the completely non-vegetal origin of the MM II pseudo palmettes.



**Fig. XI.6**

Tangential loops make their appearance in Crete on EM III seals (Fig. XI.6). The single loop flying from a spiral curl appears frequently.<sup>23</sup> On a seal from Marathokephalo there is a design which can either be described as a running spiral from which drops fly, or as a series of circles giving off two tangential loops. The lobes

themselves are divided by a midrib, giving them a rather leaf-like appearance (Fig. XI.7).<sup>24</sup>

A "gable seal with flattened ridge" from Platanos shows a spiral curl from which spring

<sup>22</sup> In order to account for the appearance of these drops, Riegl in *Stilfragen* (Berlin, 1893) brought in the principle of *Zwickelfüllung*, the necessity for filling certain corner spaces, which was felt by Egyptian art and by geometric spiral decorative systems such as that of the Maori. His theory does not explain why the imperative demand of this general principle was not felt until the New Kingdom, a time when the South-flower perianths with the corner in question unfilled, had long been in use. If this objection is met by the explanation that it was not until the spiraliform curling of the South-flower "petals" began in the New Kingdom that the need was felt, we may ask why the drops were not universally applied if they were developed in accordance with an imperative principle. Why was this particular corner of the perianth (and the analogous corner of the upturned volute) chosen to receive a filling in preference to all the possible corners exhibited by the South-flower hybrids? The Aegean influence that had been present since the Twelfth Dynasty appears to offer a historical explanation which may be substituted for the operation of Riegl's generalized abstract principle. Cf. the discussion of Reinhold Wurrz, *Spirale und Volute* (Munich, 1914), p. 45f. Goodyear says that the tabs generally found pendant from the volutes, have been mentioned as being either buds inverted or pendant streamers and explained that the loops as actual drops of water hanging from a lotus flower (*The Grammar of the Lotus* (London, 1891), p. 109). In 1920 Petrie did not think that an adequate explanation could yet be given, although he did find a pre-Eighteenth Dynasty precursor in the hybrid plant design on a scarab (*Dec. Art*, pp. 73-4). However, such an early dating of this scarab does not seem possible. The explanation offered here has been anticipated only by Gotsmich, who refers to the Egyptian drops as signs of Cretan influence.

<sup>23</sup> Xanthoudides, *Vaulted Tombs of the Mesara* (Liverpool, 1928), Pls. VIII, 680 (Porti; cylindrical seal base; cf. also Matz, *Frühkretische Siegel* (Berlin-Leipzig, 1928), Pl. VI, 4); XIII, 1113, 1051 (Platanos; cylindrical seals); XIV, 1066 (Platanos; spherical seal with pierced handle); XV, 1074 (Platanos; rectangular base of semicircular stone seal; cf. PM II, 217, Fig. 122a). Matz, *op. cit.* Pls. X, 12 (provenience?; round base); III, 16 = no. 230 (Athens, National Museum, 5401; date?).

<sup>24</sup> PM I, 118, Fig. 87, g = Matz, *op. cit.* Pl I, 1.



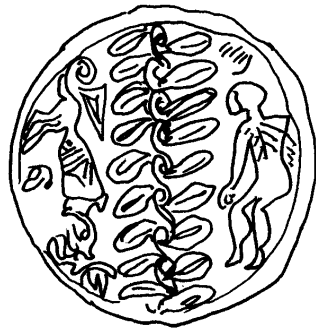


Fig. XI.7

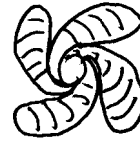


Fig. XI.8



Fig. XI.9



Fig. XI.10

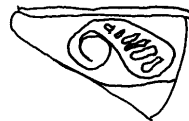


Fig. XI.11



Fig. XI.12

on each side stems ending in bud-like forms.<sup>25</sup> This design is probably equivalent to the double tangential loop motive. The base of a cylindrical seal from the same site bears four torsional loops springing from a central circle (Fig. XI.8).<sup>26</sup> The same design is carried out with three loops on a seal from Gurnes that may be MM I in date (Fig. XI.9).<sup>27</sup> A broken seal from Kalathiana apparently carried an s-spiral from one corner of which springs a drop.<sup>28</sup> In MM I single tangential loop designs were popular on the pottery (Figs. XI.10, XI.11).<sup>29</sup> An eastern-Cretan design shows a running s-spiral from which drops are thrown off. However, it is on MM II pottery that the drops and tangential loop designs reached their climax. The lobe of a single tangential loop patterns could become elaborated, while

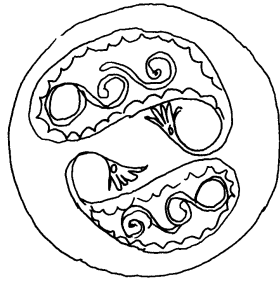
<sup>25</sup> Xanthoudides, *op. cit.*, Pl. XIV, 1059.

<sup>26</sup> *Ibid.*, Pl. XIII, 1041 = PM II, 217, Fig. 122c.

<sup>27</sup> Matz, *op. cit.* Pl. XIII, 18 = no. 38 (= Delt., IV (1918), 54, Pl. IV, B; cylindrical seal. Cf. ArchC, p. 123 where Gournes is listed as a MM I site).

<sup>28</sup> Xanthoudides, *op. cit.*, Pl. VIII, 817.

<sup>29</sup> Fig. XI.10 = Aberg, *Chronologie IV* (Stockholm, 1931-5), 231, Fig. 448, 1 (Palaikastro, Candia M. 3375; solid circle), 2, 8 (= BSA IX [1902-3], 305, Fig. 4; Palaikastro, Candia M. 4733, 3371; spiral curl). Fig. XI.11 = BMC I, 83, Fig. 104, A 505 (Palaikastro; hatched loop).



**Fig. XI.13**



**Fig. XI.14**



**Fig. XI.15**



**Fig. XI.16**

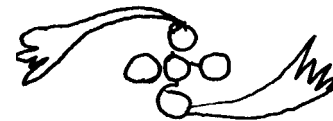
the curl might change into a rosette or other shape (Figs. XI.12, 13, 14).<sup>30</sup> Double loops occur (Fig. XI.15),<sup>31</sup> and were often elaborated by dotting or hatching the loop (Figs. XI.16, XI.17),<sup>32</sup> by adding other smaller drops (Fig. XI.18),<sup>33</sup> or by substituting toothed



**Fig. XI.17**



**Fig. XI.18**



**Fig. XI.19**

triangular designs for the loops (Fig. XI.19).<sup>34</sup> In addition to these tangential motives, drops were almost indispensable adjuncts to spiral designs, flying from scrolls, and filling corners in a manner that exemplifies Riegl's *Zwickelfüllung*.<sup>35</sup> S-spirals were frequently equipped with drops flying from some angle, both on the pottery<sup>36</sup> and on seals.<sup>37</sup> At Mochlos there was found a MM II signet having two pairs of running spirals equipped with

<sup>30</sup> Fig. XI.12 = PM IV, Pl. XXX, B (Knossos; interior of bowl; C is a sherd with part of a similar loop); *Ibid.*, 137, Fig. 107 (Knossos; N. W. Treasury border; bridge-spouted jar; MM II B).

fig. Fig. XI.14 = PM I, Pl. III, right (Knossos; bridge-spouted jar; MM II A).

<sup>31</sup> Fig. XI.15 = PM IV, Pl. XXX, A (Knossos, bottom of tall cup).

<sup>32</sup> Fig. XI.16 = *Festos*, Pl. XVIII, C. Fig. XI.17 = PM II, Pl. IX, C (Knossos; S. E. Palace angle; cup; MM II A).

<sup>33</sup> Fig. XI.18 = PM I, 197,

<sup>34</sup> Fig. XI.19 = BSA XIV (1912-13), 16, Fig. 3, a (Kamarea cave).

<sup>35</sup> Cf. *Myc. Pot.*, pp. 121-3 for Furumark's discussion of the "petaloid loop." PM I, Pl. III, right (Knossos; filling corners). PM II, Pl. IX, d 1, (Knossos; S. E. Palace; spouted jar). *Festos*, Pl. XXVIII (small two-handled jar; floor XV; drop dependent from spiral).

<sup>36</sup> *Festos*, Pls. XVI, a (bridge-spouted jar; MM II B), b (bridge-spouted jar). Aberg, *op. cit.*, 154, Fig. 274 (= *Festos*, p. 283, Fig. 166, left); 152, Fig. 170 (Knossos; sherd; Candia M); 190, Fig. 353 (Knossos; fragment of shoulder and neck; Candia M. 5180). BSA XL (1939-40), 45, Fig. 1, c (Kamarea Cave; spiral coils changed to "stars").

<sup>37</sup> PM IV, opp. 487, Fig. 416 (= BM Cat. H. B. Walters, *Engraved Gems and Cameos* (London, 1926), p. 13, no. 103; cf. PM IV, p. 486; bought in Athens in 1892, said to be from Mycenae; Evans states that the seal is certainly Cretan, dating to MM II). BSA XXVIII (1926-7), Pl. XIX, T. XVII, p. 12 (Mavrospelio).

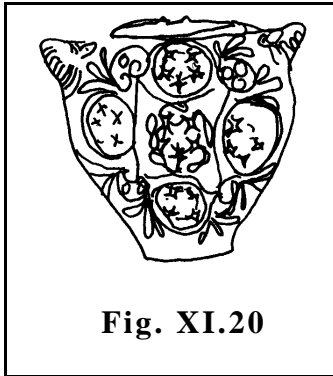


Fig. XI.20

drops.<sup>38</sup> Triquetral designs formed of s-spirals also throw off drops.<sup>39</sup> MM II hieroglyphic seals bear a single and double tangential loop respectively,<sup>40</sup> and a double tangential loop adorns a stone bowl from Phaistos.<sup>41</sup>

In addition to this variety of uses, there are still other types of drop patterns. A large pithos from Phaistos was decorated by large drops boldly splashed over its walls.<sup>42</sup> A cross ending in dumbbell-shaped forms from which emerge stemmed drops adorns a Phaistos cup.<sup>43</sup> Groups of four large drops, together with two globular loops, are combined with patterned lozenges to ornament the shaft of a fruit stand.<sup>44</sup> Circular whirl designs formed by twisting loops

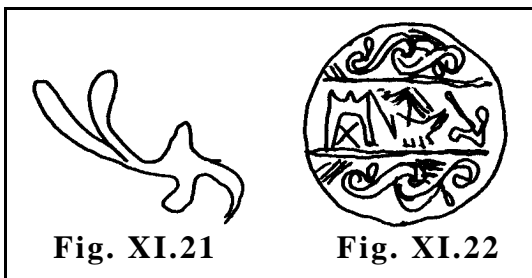


Fig. XI.21

Fig. XI.22

occur on the famous bridge-spouted jar from Knossos and, in simpler form, on a lentoid bead found near Gortyna.<sup>45</sup> A final group of designs are very different from each other in detail, but are all alike in exemplifying the symmetrical application of drops as subsidiary

details (Figs. XI.20, XI.21, XI.22).<sup>46</sup>

The total impression yielded by MM III pottery is very different from that of MM II. Now gardens of fresh flowers are spread over the pottery together with some artificial

<sup>38</sup> Seager, *Explorations on the island of Mochlos* (Boston, 1912), p. 39, Fig. 14, 110 (= PM I, 277, Fig. 207, b = Matz, *op. cit.*, Pl. XIII, 9, no. 213; Mochlos III, i).

<sup>39</sup> PM II, 197, Fig. 106, b. A. J. Evans, *Scripta Minoa* (Oxford, 1909), p. 157, P 415.

<sup>40</sup> PM I, 277, Fig. 207, K.

<sup>41</sup> *MonAnt.*, XIV (1904), 479, Fig. 87; 445, Fig. 60, 3 (sacellum of early palace).

<sup>42</sup> *Festos*, Pl. XXXVII, (Magazine 34). Cf. also *Delt.* IX (1923), Fig. 7 (= Aberg, *op. cit.*, 183, Fig. 334, Vrachno-po-lakos, Messara).

<sup>43</sup> *Festos*, Pl. XXIV, b. These dumbbell-like forms find parallels on EM III seals (Xanthoudides, *op. cit.*, Pl. XIII, 1042, 1087 (Platanos)).

<sup>44</sup> *Festos*, Pl. XXII, a.

<sup>45</sup> PM I, Pl. III. PM IV, 498, Fig. 419.

<sup>46</sup> *Festos*, Pl. XXI, b (Cup; sacral ivy with drops falling from each side of the stalk). Fig. XI.21 = PM I, 246, Fig. 186, b (Kamareos Cave; low rounded, bridge-spouted pot; spirialized octopus with drops dependent from the two lowermost tentacles). PM I, Pl. III, right (triple drops projecting from each curl of papyriform

forms reminiscent of Kamares ware. Such decoration had superseded the favorite habitat of the drops, the abstract, spiraliform MM II style, and loops are now rare. Triple tangential drops swirling from a center appear on jugs.<sup>47</sup> A cup bears a running spiral from which drops emerge.<sup>48</sup> Although drops continue to occur occasionally in LM times,<sup>49</sup> the MM III period, the latest phase of which even extended through the early Eighteenth Dynasty, completes the Cretan material that might be expected to furnish a background for Egyptian development. The heyday of loop design occurred in MM II, contemporary with the Twelfth Dynasty, and in active communication with Egypt, as evidenced by imported Egyptian objects in Crete and the appearance of Kamares pottery and spiral designs in Egypt.<sup>50</sup> This setting offered every facility for allowing the Egyptians to become acquainted with the drops, and there is a small amount of evidence indicating that they actually began to take over this motive at that time.

A scarab, now in the Cairo museum, belonged to the steward My and is placed by Newberry among a group to which he has assigned a range from the Twelfth to the Fourteenth Dynasty. The corners are filled in three cases by triangular papyrus, in two by

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elements); Fig. XI.22 = *Ibid.*, 277, Fig. 207, a (= A. J. Evans, *op. cit.*, p. 153, P 23, 270-1; red carnelian bead seal; papyriform element with two drops).

<sup>47</sup> PM I, 611, Fig. 449, a (Gournia), b (Zakro). Sometimes the individual drops are elaborately patterned, in imitation of embroidery lace, according to Evans (PM I, 611). Quadruple, white painted loops occur on a pour-handled jar from Palaikastro (BSA Sup. I, 41, Fig. 29 [B 33]).

<sup>48</sup> PM II, 371, Fig. 206, d (Knossos; early basements). A pattern of "tailed spirals" on a silver bowl from a hoard at Knossos may be comparable (PM II, 387, Fig. 221, a).

<sup>49</sup> Seager, *Excavations at Pseira* (Philadelphia, 1910), p. 33, Fig. 14 (three-handled amphora; LM I A; double tangential loops); BSA, Sup. I, 69, Fig. 55 (Palaikastro B 10; tall bridge-spouted jar, double loops. JHS XXII (1902), Pl. XIII, 3 (Zakro; rhyton. A design comparable to this is BSA Sup I, 31, Fig. 19, f [Palaikastro sherd with crocus (?) spray inside the loop]). Designs showing faint traces of double tangential motives, sometimes with loops replaced by spiral curls, and generally with vegetal additions, occur: BSA, Sup. I, Pls. XV, b; XVI, b (Palaikastro; cups). PM II, 537, Fig. 341 (Palaikastro; pot with goat head). These designs are anticipated by a MM III B storage jar (Edith H. Hall, *Excavations in Eastern Crete: Sphougara* (Philadelphia, 1912), p. 61, Fig. 33). The triple group of loops projecting from a ring on a MM III B -LM I A jar (Seager, *The Cemetery of Pachyammos* (Philadelphia, 1916), Pl. X [Group IX, b]) and an irregular group of loops accompanied by a contorted loop rosette (on a sherd from a similar jar (BSA, Sup. I, 42, Fig. 30 [Palaikastro; LM I A (?)])) are both unique.

<sup>50</sup> Among the MM II sherds found in Egypt, one small fragment from Harageh preserves part of a "racquet and ball" loop design (PM II, 212, Fig. 119, g).



Fig. XI.23



Fig. XI.24



Fig. XI.25



Fig. XI.25A

ankh signs and in the last case by a drop (Fig. XI.23).<sup>51</sup> In view of the fact that a drop occurs but once, and could have been produced from the papyrus shape by the carelessness either of the modern copyist or of the ancient workman, this scarab must remain an uncertain example. Another, undated save for a range from the Twelfth to the Eighteenth Dynasty, shows four s-spirals interlocked by long curving scrolls. Four drops fly from the corners of the two larger s-spirals (Fig. XI.24).<sup>52</sup> A third instance comes from tomb 20 at Gurob, a burial dated by Brunton on the evidence of the pottery around the reign of Amenhotep I, although he notes that this and two associated scarabs could be earlier than the Eighteenth Dynasty (Fig. XI.25).<sup>53</sup> These Egyptian scarab patterns are very similar to the hieroglyphic seal from Mochlos bearing s-spirals and drops (Fig. XI.25A).<sup>54</sup> The rarity of Egyptian examples cannot invalidate the conclusion that drops were introduced into the Nile land from Crete, by the medium of spiral design. Despite the uncertainty of early Eighteenth Dynasty dates of the scarabs with spiral drops, such designs must have made their entry into Egypt during the Twelfth Dynasty, the time when the MM II Kamares tangential loop designs were flourishing and the Mochlos seal was made, and which saw the introduction of a series of spiraliform designs into Egypt.

<sup>51</sup> Fig. XI.23 = Newberry, *Scarabs* (London, 1908), Pl. XIV, 21.

<sup>52</sup> Fig. XI.24 = *Ibid.*, Pl. XIX, 31.

<sup>53</sup> XI.25 = Brunton and Engelbach, *Gurob* (London, 1927), p.9; Pl. XXIII, 3. The other two scarabs bear twisted cord and s-spiral designs.

<sup>54</sup> This seal was illustrated by Gotsmich, alongside of a faience lily, as showing the source of the drops attached to the floral form (XI.25A = *Entwicklungsgang der Kretischen Ornamentik* (Wien, 1923), p. 30, Fig. 13).

In strong contrast to the apparently limited reflections of Cretan loops in Egyptian spirals, is the adaptation of drops as an integral part of many New Kingdom South-flowers, and often also of the upturned volutes. Material filling the gap between the spiral scarab patterns and the floral motives does not exist, and we must fill it by the assumption that the unorthodox artists who produced the first floral hybrids in the Second Intermediate Period were sufficiently impressed by the analogy between the true spirals and the increasingly spiraliform South-flower “petals” and volutes<sup>55</sup> to transfer the appurtenances of the one group of designs to the other.<sup>56</sup> The result evidently found favor, for it was incorporated in the traditions of the workshops as a permanent feature of the repertoire.

We should not overlook the fact that the frequent addition of drops to South-flowers and volutes may, in part at least, be owing to the feeling of Egyptian craftsmen that they could thus obtain additional, space-filling elaboration of their designs. Thus, Riegl’s principle of *Zwickelfüllung* may be held valid to the extent that it helps to explain why the Egyptians used this motive so widely. The historical development here outlined shows plainly that the motive was already at hand and was not created in Egypt as a response to the need for *Zwickelfüllung*. Moreover, the fact that Egyptians practically never used drops apart from the curl of a South-flower “petal” or upturned volute,<sup>57</sup> although the hybrids offered many convenient corners, shows that the force of the association between spirals and attendant drops characteristic for Crete was carried over to a certain extent in Egypt.

Although the drops of the Ahmose palmettes are ultimately of MM II origin, they had already appeared in the later Seventeenth Dynasty on ‘Aqhor’s gaming board. By the beginning of the Eighteenth Dynasty this feature was part of the Egyptian repertoire and

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<sup>55</sup> These had already appeared in a completely spiralized form in Middle Kingdom architectural decoration.

<sup>56</sup> Since the drops were carried by the medium of spiral designs, the occasional symmetrical use of loops in MM II must be unrelated with the symmetrical application of drops to the Egyptian South-flower.

<sup>57</sup> Drops were occasionally added to the outside of volute curls, but this usage remained rare and atypical.

does not form an indication of contemporary connection with Crete, as does the animal scene on the other side of the dagger.<sup>58</sup>

### MM II PALMETTE-LIKE DESIGNS

Like the drops, those Minoan designs whose possible relationship to the Egyptian palmette must now be discussed, are products of MM II, chiefly of the earlier phase of Kamares ware. Only a very small series of these designs has been preserved. Three of them are truly palmette-like in that their three or five-leaved crowns are supported by perianth-like down-curving volutes (Figs XI.26, XI.27, XI.28).<sup>59</sup> In addition to these pseudo-palmette forms, there are examples which display a sheaf of leaves but lack a volute perianth. The development of all these designs from the spiral with attendant drops or from



**Fig. XI.26**



**Fig. XI.27**



**Fig. XI.28**

<sup>58</sup> A feature that may possibly be connected with the Aegean are the dots used as fillings around the palmettes. They cannot be paralleled in Egypt, but are common in Aegean ceramics, especially on the Greek Mainland. A dot above and below each curl of a spiral band occurred on a MM II handled, spouted jug from Phaistos (*Festos*, Pl. XXIX; floor XVI). The pattern appears on a fragmentary stela from Mycenae (Schgr., Pl. IX top) and on vessels of “earliest LH I style” (Pro. I, 389; II, 162, Fig. 652 [T. 26, side chamber; squat jug, no. 343]; Blegen, *Korakou* (Concord NH, 1921), Pl. IV, 1; Schgr., Pl. CLXVI, 156 [Grave III]). A one-handed jug, extremely close in shape and design to the one from the Third Shaft Grave, was found somewhere in Egypt (Klio, Vol. XXXII [1939], Pl. III, Fig. 6 [University College, London; Petrie coll.]). Larger fields covered by rows of dots also occur in LH I (Arch., Vol. XXXII [1932], Pls. XXXIX, 19 [T. 518; angular alabastron]; XL, 20 [T. 518; squat alabastron]) and dotted lines are a characteristic component of the popular Mainland ogival-canopy motive.

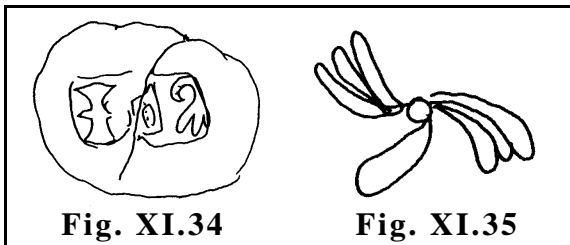
<sup>59</sup> Fig. XI.26 = PM I, Pl. III, left (bridge-spouted jar; cellar in Northwest building, Knossos; early MM II A; design placed below handles). Fig. XI.27 = PM IV, 136, Fig. 106 (bridge-spouted pot; large fragment; only the design has been published). Fig. XI.28 = PM II, 215, Pl IX, d (House covered by two higher MM III buildings, just outside the palace wall; fully developed MM II A).

tangential loop designs is either demonstrable or reconstructable with a fair degree of probability. In MM I, besides the simple tangential loop, there also occurs a plume design which is in reality identical except that the single drop has now split into four



(Fig. XI.29),<sup>60</sup> and four membered plumes continue in MM II (Figs. XI.30, XI.31, XI.32).<sup>61</sup> The appearance of a group of several drops in place of one is a normal manner of enrichment used by the Kamares artist. In addition to groups of four, a sherd from Phaistos shows two drops dependent from a spiral coil (Fig. XI.33),<sup>62</sup> as does a

somewhat related sherd from Phylakopi.<sup>63</sup>



A three-pronged spiral coil occurred on a sealing (Fig. XI.34).<sup>64</sup> From Knossos comes a sherd which probably once showed six plumes.<sup>65</sup> In MM II B there appears an

example with the attenuated lobes typical of that phase.<sup>66</sup> Aside from these single loop designs, there is an example in which the drops of a double tangential loop have each split into three (Fig. XI.35).<sup>67</sup> It is clear that such plumes are merely multiplied loops and they were used as spiral adjuncts in the same manner as single drops.<sup>68</sup>

<sup>60</sup> Fig. XI.29 = BSA, IX (1902-3), 305, Fig. 4 (= PM IV, 112, Fig. 77, b; cup from Palaikastro). Matz, Pl. XIX, 3a (= PM I, 201, Fig. 150, f; steatite prism with two prongs; presumably MM I).

<sup>61</sup> Fig. XI.30 = PM II, Pl. IX, e (Knossos, S. E. Palace angle; one-handed pilgrim flask; II A); f (Fig. XI.31) (same provenience; bridge-spouted jar); d (Fig. XI.32) (same provenience; wide-mouthed jar; design on narrow panel below handle).

<sup>62</sup> Fig. XI.33 = *Festos*, 214, Fig. 93, right.

<sup>63</sup> PM I, 246, Fig. 186, b (the two drops spring from a lozenge form; MM II A).

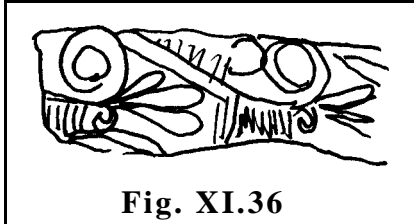
<sup>64</sup> Fig. XI.34 = Fernand Chapouthier, *Ecritures minoennes au Palais de Mallia* (Paris, 1938), p. 10, Fig. 7, a; Pl. I, H. 4; Bulla.

<sup>65</sup> PM IV, 131, Fig. 99.

<sup>66</sup> PM I, 267, Fig. 198, D (Knossos; latest MM II B).



It was not only the drops of the loop designs that reproduced themselves vegetatively. The drops thrown off by spirals, especially s-spirals, underwent the same process, which forms the first essential step in the production of a pseudo-palmette design.



**Fig. XI.36**

An s-spiral on a sherd from Knossos throws off twinned drops,<sup>69</sup> and two s-spirals on a bridge-spouted jar have groups of four drops in exactly the same position.<sup>70</sup> The adding of scales to the ends of these

plumes gives the impression of a floral form, though the entire design is in reality completely formal. In order to develop a voluted pseudo-palmette it is only necessary for the group of drops to be shown running forward from the dorsal part of the spiral. Such a pattern occurs on a bowl sherd found at Phylakopi, but imported from Knossos according to Evans (Fig. XI.36).<sup>71</sup> Here there was once a row of continuous s-spirals with three drops flying from each one. In this case the pseudo-palmette is not fully developed. The main spiral end forms one volute and a very small curl forms the other. There are two explanations for the appearance of the small second volute. Either it is simply a playful outgrowth of the s-spiral or else it is part of another juxtaposed spiral.<sup>72</sup> Another example<sup>73</sup> represents the manner in which two s-spirals with groups of drops must be grouped in order to create the volute calyx crowned by leaves.<sup>74</sup> Although this is a hypothetical design, elaborated s-spirals are arranged in this manner on a bridge-handled

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<sup>67</sup> Fig. XI.35 = *Festos*, Pl. XX, b. Handled cup. Here a red-painted clay knob, equivalent to the rivet of the cup's metallic prototype, forms the center circle of the design. From it falls a subsidiary drop.

<sup>68</sup> Pendlebury refers to the connection of plumes and tangential loops (*ArchC*, p. 136). Evans has derived the loops from whorl shell prototypes (PM IV, 111-2; Fig. 77, a, b). Extremely free versions derived from double tangential loops occurred in the LH I Shaft Grave IV at Mycenae (PM I, 599, Fig. 440, c, e; Evans calls these MM III sherds).

<sup>69</sup> Aberg, *Chronologie* IV (Stockholm, 1930-35), 190, Fig. 353.

<sup>70</sup> *Festos*, Pl. XVI, a.

<sup>71</sup> Fig. XI.36 = PM I, 246, Fig. 186, c; (mature MM II A).

<sup>72</sup> Cf. Aberg, *op. cit.*, 155 who has explained these forms as the result of the juxtaposition of spirals.

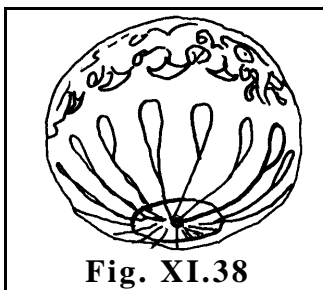
<sup>73</sup> *Festos*, Pl. XVI, b.

<sup>74</sup> In Figs. XI.29-35, the actual designs are not copied literally, but have been reduced to simplified s-spirals. To facilitate the comparison of designs the s-spiral skeletons have been arbitrarily arranged so that the dorsal side of the right-hand spiral will be at the top. To achieve this it has been necessary in many cases to draw the spirals reversed or even reproduce their mirror images.



pot. One or the other of these alternative second steps<sup>75</sup> must have produced the motive of Fig. XI.37.<sup>76</sup> One volute is still part of an s-spiral, while the other is a spiral segment, not related with any of the other spirals on the jar. Much the same design appears in Fig. XI.26 where chevron lines comparable to the converging stems form the base of this pseudo-palmette, and are also filled by a prominent drop, recurring below the handles of another bridge-spouted jar, dated to the succeeding MM II B period (Fig. XI.38).<sup>77</sup> A final pseudo-palmette design

shows a triple group “growing” from curious, bulbous-appearing bases (Fig. XI.27). This last feature is probably a section of a rosette such as was often used to cover the bases of bowls (Fig. XI.39).<sup>78</sup> This application of a rosette does not seem to have occurred before in Minoan decoration, but was used again in MM III, producing a very different result.<sup>79</sup>



The development of the pseudo-palmette designs by the multiplication of the drops flying from the outer periphery of the spiral is clear. The motives approximating to the palmette sheaf, without volutes, possess a different origin. They developed by changes occurring in the spiral itself. The simplest example is

on the inside of a bowl where we see that the spiral end of a single tangential loop is divided into five lobes (Fig. XI.13).<sup>80</sup> One end of an s-spiral on a bridge-spouted

<sup>75</sup> The small number of examples preserved out of the large series that must have once existed explains the gaps in the evidence, and justifies a cautious use of hypothetical reconstructions.

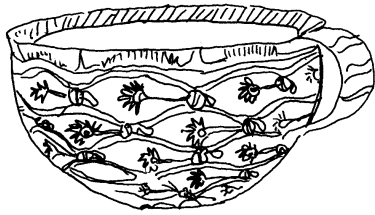
<sup>76</sup> Fig. XI.37 = PM II, Pl. IX, d.

<sup>77</sup> PM I, 241, Fig. 181.

<sup>78</sup> Fig. XI. 38 = PM IV, 132.

<sup>79</sup> Cf. Chapter VII, n. 43.

<sup>80</sup> PM IV, Pl. XXX, B. The scalloped interior edge of the loop recurs on C, a sherd having affinities with the creamy white bordered class of MM II A (*Ibid.*, p. 135, 120). The bowl was found in the same deposit as the pot (*ibid.*, 137, Fig. 107), which “shows simple white designs on a black glaze, a not infrequent characteristic of MM II B” (*Ibid.*, 136). Cf. PM II, Pl. IX, d (Fig. XI.37) for a MM II A vessel showing a



**Fig. XI.39**



**Fig. XI.40**

jar ends in three vivacious curls.<sup>81</sup> A further stage of development is shown by examples from Phaistos and Knossos where the ends of the spirals have swollen into circles from which loops fan out (Fig. XI.40).<sup>82</sup> There is, in addition, a peculiar design, a fantastic Kamares invention, which should probably be included in this class; a palmette sheaf tops a straight stem which springs from a circle with drop, presumably derived from the tangential loop motive.<sup>83</sup>

It is evident that the Minoan pseudo-palmette and “palmette” sheaf designs are an integral part of the Kamares repertoire and that they have a completely non-vegetal origin.<sup>84</sup>

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circle with scalloped interior edges. There appears to be more evidence for a MM II A date for the bowl with the loop design in question. Cf. also *Festos*, 246, Fig. 123 (Vano X; jug; spiral ending in two drops).

<sup>81</sup> *Festos*, Pl. XVI, b. A somewhat similar type was still used in late MM III B (PM II, 304, Fig. 176, A [Knossos, House of Sacrificed Oxen; jar with two small loop-handles]).

<sup>82</sup> *Festos*, p. 283, Fig. 166, left (= Aberg, *op. cit.*, 154, Fig. 274; jar with two handles; floor XXI), 224, Fig. 101, right (floor VII; pitcher with cut-away spout). *MonAnt.*, XIV (1904), 491, Fig. 95 (= Aberg, *op. cit.*, 158, Fig. 279; *Festos*, MM II B; bridge-spouted jar). Aberg, *op. cit.*, 190, Fig. 353 (Knossos, Candia M. 5180; fragment of shoulder and narrow neck). Cf. the MM II A design where the loop tangent to a circle has split into four and, in addition, another drop is thrown off on the opposite side of the circle (PM II, Pl. IX, f). There is also a possibility that these sheafs may be related to motive of rosette-filled spirals (BSA, Sup. I, 15, Fig. 9, MM II; cf. MM III A examples, PM II, 371 (or 9) Fig. 206).

<sup>83</sup> PM IV, 133, Fig. 100 (Knossos; found below House of Fallen Blocks; revised drawing superseding others). Evans has explained this as a conventional iris flower with bulbous root. The existence of a so-called “palmette” molded in relief on a MM II A creamy-bordered bowl should be noted (PM IV, 119, Fig. 86; Pl. XXIX, A [Knossos; Kouloura 31]). This is related, not with the drop designs, but with the semi-circular element, usually showing midrib and horizontal hatching, that occurs on EM III-MM I seals (Xanthoudides, *Vaulted Tombs of the Mesara* Liverpool, 1928), Pls. XIII, 1103, 1043, 1113, 1085; XIV, 1073, 1067 [Platanos]. Matz, *op. cit.*, Pls. II, 7c [Candia M. 1299]; III, 15 = No. 229 [Athens, National Museum; XIII, 13 = No. 157.. PM II, 202, Fig. 111.

<sup>84</sup> It is extremely doubtful whether the MM II artists or their patrons ever imputed any vegetative meaning to these designs, nor does it seem possible that these abstract patterns furnished the basis from which the MM III naturalistic palm and lily (South-flower) representations developed (Aberg, *op. cit.*, 161).

The accidental nature of the resemblance between the pseudo-palmette and Egyptian South-flower volutes is also clear.

After having labored through this detailed discussion of MM II drop designs, it is time to ask whether our pains are to be repaid by the discovery of connections between the Cretan motives and the palmette foliage of the Ahmose dagger. In this regard two facts are of outstanding importance. In the first place, the pseudo-palmettes appear to be limited to MM II A, contemporary with the earlier part of the Twelfth Dynasty. No examples bridging the chronological gap between them and the beginning of the Eighteenth Dynasty have appeared.<sup>85</sup> In the second place, if we attempted to solve this impasse by assuming that the motive was carried to Egypt during MM II A, presumably by the medium of pottery,<sup>86</sup> we would be faced by the total lack of indication that such designs produced a reaction in Egypt sufficiently strong to perpetuate the motive until the Eighteenth Dynasty. Finally, it should be added that the general similarity between the Ahmose palmettes and the MM II pseudo-palmettes does not extend to details. The lanceolate leaves of the former (CL 1) contrast with the obovate rounded leaves of the latter. In view of all these factors we must conclude the investigation with a negative result. There appears to be no basis for assuming a connection of any kind between the pseudo-palmette designs, or the palmette-like sheafs and the Egyptian palmettes. With the vanishing of the only foreign prototype that had seemed at all possible, we are forced to consider all the elements of the palmette as purely Egyptian in origin.

#### THE EGYPTIAN ORIGIN OF THE PALMETTES

In falling back upon the assumption of a completely Egyptian origin for the palmette, we have returned to the standpoint from which Riegl started in his explanation of

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<sup>85</sup> The unique trilobate drop pattern on a three-handled jar from Pachymammos (Seager, *The Cemetery of Pachymammos* (Philadelphia, 1916), Pl X) Fig. X15) is one of the latest derivatives of drop ornamentation, but there is no reason to consider it a lineal descendant of the pseudo-palmettes. It belongs to the MM III B - LM I A transitional phase that was contemporary with the early Eighteenth Dynasty, too late to allow it to serve as an antecedent of the palmette.

its derivation. He considered it a totally Egyptian form, a three-quarters view of the lotus flower. This consists of a combination of one type of profile lotus (in which the petals had become reflexed) with what Riegl took as a full view lotus, i. e. a single rosette. The lobed South-flower he assumed to be a degeneration product of the palmette, a shortened form in which the crowning foliage had been omitted. He cites as grounds for his view the presumed occurrence of palmettes earlier than plain lobed forms.<sup>87</sup> In his eyes an even more important reason was that the supplementary addition of leaves to the “lotus” profile would not be explainable, while the occasional omission of foliage would be understandable.<sup>88</sup> The evidence accumulated since Riegl’s day shows that he was mistaken in assuming the priority of the palmette, and forces us, whether we will or no, to seek some explanation for the addition of the lobes. If Riegl had suggested that the palmette arose from a combination of South-flower and rosette (“full view lotus”)<sup>89</sup> instead of beginning the process the other way around, it would be possible to cite some evidence which, though inconclusive, supports the assumption of such a conflation.

In this hypothetical process the lobe of the South-flower would blend together with the circular center of the rosette, while the rays must be twisted out of strict radial arrangement by the pressure of the South-flower volutes. The lobed shape of the crowning units of most of the fan-like palmettes is identical with that of the “daisy” rosette rays. The leaves of a palmette on a horse blinker of Amenhotep II (CL 35) are tipped by circles as are

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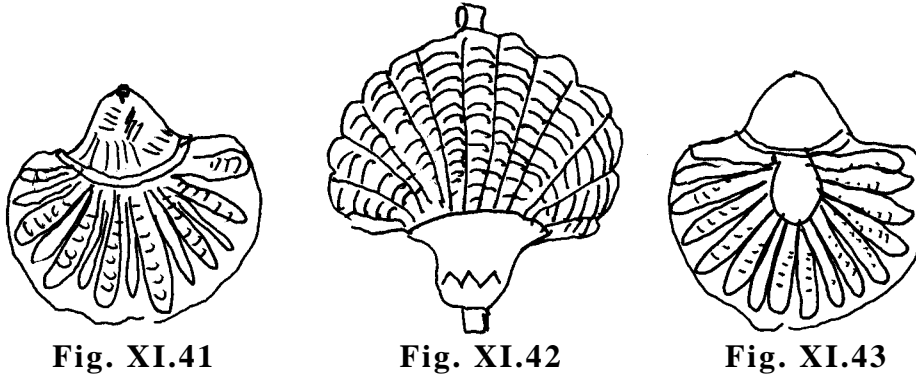
<sup>86</sup> In Crete such designs appear to have been a speciality of the ceramic decoration and occur nowhere else. Evans mentions a sherd from Harageh, now in Manchester, which seems to show “part of a palmette ornament, showing the ends of two acuminate leaves (i. e. MM II B) on a dark ground” (PM II, 228).

<sup>87</sup> He quotes Petrie, amulets of the Twelfth Dynasty, and a palmette with the plain contour line of the fan dating to the Fourth Dynasty.

<sup>88</sup> Riegl, *Stilfragen*, (Berlin, 1893). Petrie’s explanation follows much the same lines. However, it is the plain lobed lily which he considers as a combination of profile and top views of the lotus sepals. The three-leaved palmette consists of top and profile views of both sepals and petals. The multiplication of the number of petals shown produced the fan palmettes. The volute palmettes he derives from various combinations of sepals (*Dec. Art*, pp. 68-71).

<sup>89</sup>This is actually the explanation of Goodyear who explains the palmette by citing rosettes (*Grammar of the Lotus* (London, 1891), p. 109).

some rosettes (Figs.IV.76, XI.39).<sup>90</sup> Certain gold beads in Berlin, of unknown provenience, illustrate every important step in this assumed development, although here papyrus, not the South-flower, is combined with the rosettes. Two beads show papyrus



flowers surmounted by large, circular palmette fans (Fig. XI.41),<sup>91</sup> and are closely matched by a faience example from Amarna (Fig. XI.42),<sup>92</sup> indicating that all these Berlin beads probably belong to the latter part of the Eighteenth Dynasty. A third type is identical with the first two except for the addition of the South-flower lobe to the palmette fan (Fig. XI.43).<sup>93</sup> The result is a papyrus palmette comparable in all respects to the South-flower palmette aside from the varying shape of the inflorescence.. The leaves of another papyrus palmette bead are tipped with dotted circles, allying it to Amenhotep II's blinker and to the rosettes cited above.<sup>94</sup> The tale is completed by a bead that reproduces the assumed first stage in the development; it shows a papyrus flower on the upper periphery of which is set a complete rosette with circle-tipped petals (Fig. XI.44).<sup>95</sup>

<sup>90</sup>Men. et al, Pls. XLI, XLIII (Qurneh 226; Tuthmosis III; unification symbol from throne). Quibell, *The Tomb of Yuaa and Thuiu* (Cat Caire), Pl. XXI.

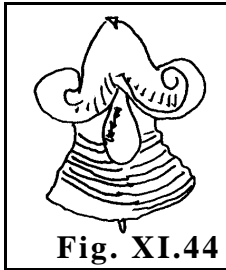
<sup>91</sup> Fig. XI.41 = MÄSBerl., I, Pl. VIII, 36, second and eighth from left.

<sup>92</sup> Fig. XI.42 = Petrie, *Tell el Amarna* (London, 1894), Pl. XVIII, 391.

<sup>93</sup> Fig. XI.43 = MÄSBerlin., I, Pl. VIII, 36, fourth from left. A South-flower clump on the Ahmose axe consisted of papyrus with projecting lobe (Vernier, *Bijoux et orfevres*, fas. 3 [Cat Caire], Pl. XLIII, 1).

<sup>94</sup> MÄSBerl., I, Pl. VIII, 36, sixth from left.

<sup>95</sup> Fig. XI.44 = *Ibid.*, Pl. VIII, 36, ninth from left. The last bead of the group (*ibid.*, fifth from left) shows a papyrus head with a *Mimusops* fruit fastened into it. This combination appears to have been a common product of the florists (cf. for instance, MIFAO, Vol. LXXIII, frontispiece, Pls. IV, VI, 3 [Kha'. Deir el Medineh 8, probably Amenhotep III]).



**Fig. XI.44**

This papyrus series forms a possible analogy for the development of the fan palmette. However, the gold beads in Berlin appear to date to the late Eighteenth Dynasty,<sup>96</sup> and were probably made merely by inserting the papyrus into developed South-flower patterns.

In such cases, they do not form a real developmental series parallel to that which produced the South-flower palmette. Although the evidence available for this modified version of Riegl's explanation of the palmette is inconclusive, it is undeniable that many of the fan palmettes look like confections of South-flowers and single rosettes.

The impasse confronting us when dealing with the origin of the palmette is probably in part, at least, owing to the fact that its *anlagen* are covered by the mists which obscure Egyptian developments during the Hyksos interlude. The Seventeenth Dynasty gaming board of 'Aqhor is sufficient to prove that, despite the unsettled political state of the country, some artists were experimenting with new art forms. Here, as in the case of the beginnings of spiral ornament, it is in the Intermediate Period itself that important cultural changes began. Although we cannot follow in detail the actual development of the palmette, it is possible to suggest various processes, which, alone or combined, contributed to its production. In fact, it is very probable that palmettes developed in more than one way. It seems necessary to assume that the lobeless palmettes, usually appearing with only three leaves, and the lobed fan palmettes, which do not begin with certainty before the reign of Tuthmosis III, were the results of different types of operations.

Segmentation of the South-flower lobe would automatically result in lobeless palmettes. Although the pointed tips of Ahmose's type (CL 1) are unlike the South-flower lobes, other palmettes may be cited as supporting such an origin. A fragment of a throne of Tuthmosis IV preserves part of a unification symbol in which the emblem of Upper Egypt

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<sup>96</sup> Aside from the comparison with the Tell el Amarna object, another reason for assigning a late date lies in the use of a papyrus palmette as a filling motive in a figure-8 ceiling pattern from a Theban tomb, Fig. V.58, (Art égy. I, Pl. XXXI, 9; no provenience). The only dated post Middle Kingdom examples of this design belong to the early Nineteenth Dynasty, Fig. V.55 (Foucart, *Tombes thebaines: Le Tombeau*

has sprouted three lobes in place of a normal single unit (CL 4). The form produced must be classified as a palmette, although its use in the symbol proves the Egyptian craftsman to have regarded it as but a mere variant of the usual South-flower type. Much later, in the reign of Ramses II, a triple group of three-leaved lobeless palmettes substitute for the South-flowers in a clump composition, and are flanked by single-lobed blooms (CL 29). In the design painted on a sherd dating around the time of either Amenhotep II or III, the central lobe of the South-flower is emphasized; thinner lobes are added on each side (CL 5). A pot from Tell el Amarna bears an example with an elongated lobe becoming tripartite at the top (CL 15). The tendency to segment is exemplified clearly on objects of Tutankhamun. In carved South-flowers on handles, both the lobe and the pendant drop have each split into three (CL 21, CL 22). A gold dagger and its sheath show single-lobed blooms, besides two and three-leaved palmettes (CL 18, CL 19, and CL 20a has lobes pointed and leaf-like) and the same kind of series recurs on the kilt of a wooden statuette of uncertain New Kingdom date (CL 32, CL 18, CL 136). These various examples suggest that the lobeless palmette was not invented once, becoming a traditional motive that was varied, but not recreated. Instead it seems to have been easily formed many times by the simple method of multiplying the South-flower lobes. This is the most probable explanation of the origin of the lobeless palmettes. One step could be sufficient to consummate the process, and that may explain why we have not been able to find any designs leading up to the Ahmose palmette. In its case we must assume that the original lobes have become pointed, possibly in analogy with actual plant leaves.<sup>97</sup> The problem

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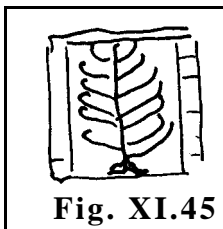
*d'Amonmos* (Cairo, IFAO, 1928-35), Pl. XXXV, right [Dira' Abu'n-Naga 19; Ramses I-Seti I (?)] and to the Twenty-sixth Dynasty (Art égy. Pl. XXXIV, 1 [no provenience; date given by Prisse]).

<sup>97</sup> Lobeless fan palmettes are very rare (Figs VI.82; CL 12, CL 26) and may be assumed to be much the same as the three-leaved forms, except that the entire area of the arc is solidly filled with leaves. CL 25, probably to be dated around the end of the Eighteenth Dynasty, is peculiar; the subordinative type of petal filling is allied to that used in lotus designs. Another unusual form, from Tell el Amarna, consists of a perianth topped by a pyramidal group of lateral shoots, branching from a central stem. (no reference given - ed.) This crowning unit appears as a separate design on the tip of a shield carried by a follower of Qenamun (Qenamun, Pl. XXXVI [Qurneh 93; Amenhotep II]) and possibly on unsatisfactorily published designs appearing in panels on boats from the tomb of Rekhmire (Fig. V.77) (Virey, *Le Tombeau de Rekhmara*, Mem. Miss. Arch. fr., V, Pl.. XLIV [Qurneh 100; Tuthmosis III - Amenhotep II])



raised by the lobed fan palmettes is more difficult. According to the examples at present available, they do not occur before the reign of Tuthmosis III (CL 33, CL 34).<sup>98</sup> Although this may result from accidents of preservation and discovery, the fact that all-over patterns of running spirals are filled by excellent fan palmettes in the reign of Tuthmosis III (CL 33, CL 34) and by bud-like designs in the two examples of this design from the immediately preceding reign of Hatshepsut,<sup>99</sup> suggests that the fan palmette had not yet become current at that time.

Even though this form may have originated in the Eighteenth Dynasty itself, that has not resulted in the survival of data elucidating its origin. Like the lobeless palmettes, the lobed forms suddenly appear fully grown. The possibility discussed above, that they resulted from a conflation of South-flower and rosette, must be left open. It remains a more likely suggestion than the hypothesis that the crown resulting from the segmentation of the South-flower lobe was then used in conjunction with lobed forms. Such a process may be ruled out since in the time of Tuthmosis III the three-leaved Ahmose palmette is still the only lobeless form known, and since lobeless fan palmettes remained rare throughout Egyptian history. There is only one example, an oval ointment spoon of uncertain New Kingdom date, where a South-flower with small lobe is topped by three leaves, clearly added here as space fillers (CL 63).



**Fig. XI.45**

The corpus of Egyptian design is still far from complete and it may be possible that patterns consisting of groups of lobes existed in the Second Intermediate Period, and have played a part in the formation of the fan palmettes. However, the only scrap of evidence at present

available are the designs on a rectangular painted coffin (no. 59) from Tomb 37 of

<sup>98</sup> CL 55 was found in the mortuary temple of Tuthmosis III, but there is no evidence that it actually dates to the reign of that king. Carefully made lobed palmettes adorning the quiver of Mahirper (CL 89) apparently date to Amenhotep II, not to Hapshepsut.

<sup>99</sup> *Deir el Bahri* IV, Pl. LXXXIX. Jéquier, *Décoration égyptienne* (Paris, 1911), Pl. XXVIII, 43 (Hepusonb, Qurneh 67).

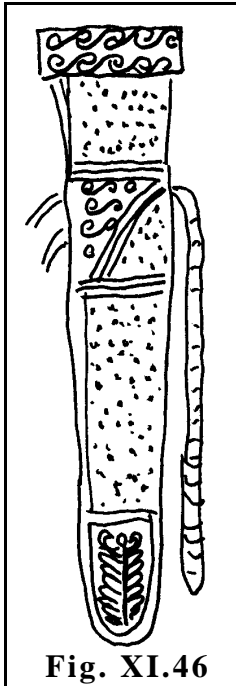


Fig. XI.46

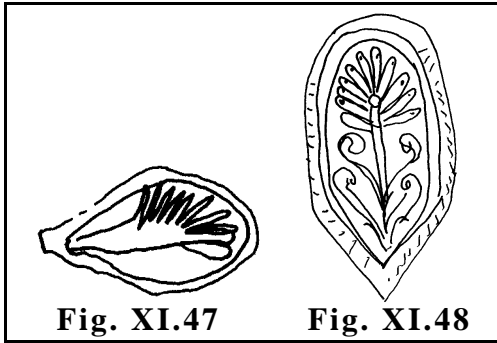
Carnarvon and Carter's excavations at Thebes. It contained four mummies and scarabs with the names of Tuthmosis I and II. The excavators argue that this type of painted sarcophagus was contemporary with the Hyksos, and consider it reused.<sup>100</sup> It bears two panels filled by designs in which the center midrib is flanked by lateral volute-like branches arranged in pyramidal fashion (Fig. XI.45). Although these designs are not built up of solid lobes, they appear to find a lineal descendant in the pattern decorating the tips of two leopard-skin quivers pictured among the New Year's gifts presented to Amenhotep II by Qenamun (Fig. XI.46; Fig. V.92).<sup>101</sup> Such sparsely exemplified ornaments are hardly sufficient to establish the

existence of an element, formed of lobes, which could have been the primordium of the fan-shaped group of lobes of the lobed palmettes. These designs are capable only of suggesting the limited nature of our knowledge and of showing that motives formed of groups of lobes probably existed.<sup>102</sup>

<sup>100</sup> Fig. XI.45 = Carnarvon and Carter, *Five Years Exploration at Thebes*, 1907-1911 (Oxford, 1912), pp. 66, 81; Pl. LX, 1.

<sup>101</sup> Fig. XI.46 = *Ken-Amun* I, pp. 27, nos. 41, 42; Pls. XVI, CXXIV, upper right. They also bear borders of running spirals. Davies states that the "guilloche and anthemion type" are indicative of "foreign origin or influence." However, the s-spirals, though ultimately of Aegean origin, had been thoroughly acclimatized in Egypt since the Twelfth Dynasty, and there is no evidence to support a foreign origin for the lobed "anthemion" ornament.

<sup>102</sup> The Middle Kingdom figure-8 architectural patterns were accompanied by foliate fillings consisting of a central lobe with two pairs of lateral leaves. In most cases these fillings and the spiral ends of the volutes are in the same spatial relationship to each other as are the South-flower perianth and the palmette fan. The same motive also occurs as a filling in a lozenge ceiling pattern at Qau (Petrie, *The Tombs of Qau. Antaeopolis* London, 1930), Pl. I, 2). *Potamogeton lucens* L., a plant important in certain representative contexts (cf. Chapter XIII, pp.??), forms the most likely source for this motive. In the New Kingdom it occurs as a textile pattern on the kilt of an Aegean tribute bearer (*Anc. Egy. Paint.* I, Pl. XXIII, first left [Menkheperra'sonb, Qurneh 86; Tuthmosis III]) and in a Twenty-sixth Dynasty figure-8 ceiling design, possibly directly copied from an earlier pattern (*Art égy.* I, Pl. XXXI, 7 [no provenience]), we do not venture to suggest any connection between it and the fan palmette. Its existence is cited merely as an additional fragment of proof that Egypt possessed a certain amount of foliate design, and that, accordingly, the land may be considered a propitious setting for the development of the fan palmette.



Two designs, both stemming from the reign of Amenhotep II, prove that it had become possible for the median lobe and crown of the fan palmettes to break away from the South-flower perianth and be used as independent elements in the creation of new designs. The representation of a leather horse blinker among Qenamun's New Year's gifts is covered by a large lobe with fringe of small leaves (Fig. XI.47).<sup>103</sup> An actual example of this object from Amenhotep II's tomb is ornamented by the same unit issuing from two superimposed volutes (Fig. XI.48).<sup>104</sup> The result is a very pleasing design excellently adapted to the oval space which it must fill. It is noteworthy that both these designs occur on the same kind of object, and we have already had occasion to see how often leather work was decorated by hybrid designs. If a fairly complete and representative series of the Egyptian saddlers' products were available, much light would undoubtedly be thrown on the development of the South-flower hybrids.

In all this discussion the question whether any influence was derived from representations of actual palm trees has not been mentioned. It seems apparent that, despite their name, the palmettes had no connection with the foliage of natural trees. No representations of the triple group of young leaves that commonly top the representations of date trees (Figs. VII.13-16) are known as early as the reign of Ahmose.<sup>105</sup> The similarity between such pointed leaves and the foliage of the Ahmose palmettes does not provide grounds for connection. Most pictures of palms lay great stress on the contrast between the triple group of sprouting leaves on top and the lateral, sometimes down-curving, older foliage. There are only a few examples where the foliage is drawn as a rather

<sup>103</sup> *Qenamun*, p. 31, no. 113; Pl. XXII.

<sup>104</sup> Daressy, *Fouilles de la Vallée des Rois* (Cat. Caire), Pl. XXII, 24144 (Biban el Moluk 35).

<sup>105</sup> *Anc. Egy. Paint.*, Pl. XXV (Minnakht, Qurneh 87; Tuthmosis III). *Deir el Bahri* III, Pls. LXIX-LXXXI (Hatshepsut). *Puyemre* I, Pls. XXI, XLVII (Khokhab 39; Hapshepsut (?) - Tuthmosis III). Rosellini, *Mon. Civ.*, Pl. LXIX (Sennufer, Qurneh 96 A; garden of Amenhotep II).

homogeneous mass conforming to a semi-circular outline, and even they show no detailed similarity to the fan palmettes.<sup>106</sup> Thus the possibility that the central lobe from which the palm foliage sprouts could have been conflated with the lobe of the South-flower in order to produce the fan palmettes is eliminated. There is only one lobed palmette known in which there seems to be some secondary influence from actual palm foliage (CL 40; Amenhotep III). However, even here, the distinction between the three leaves on top and the two pairs of lateral leaves may be caused by the exigencies of the available space. The design had to fit within narrow rectangles decorating the cabin of a ship in a funeral cortege.

We may sum up our discussion by claiming that, even though we have failed to achieve a satisfactory explanation of the fan palmette, we have been able to indicate some evidence for the existence of possibly related, collateral developments. The assumption of the segmentation of the original South-flower lobe appears, at present, to offer a fairly adequate explanation for the appearance of the lobeless palmettes. Accordingly, we may rest our case with the conclusion that, however difficult and unsatisfactory the explanation of the Egyptian origin of the palmettes may seem, any attempt to derive them from foreign sources is exposed to obstacles a thousandfold more serious and, as we believe, insurmountable.<sup>107</sup>

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<sup>106</sup> The contrast between the pointed palm leaves and the obovate lobes of the palmettes is self evident. *Five Theban Tombs*, Pl. XXI (User, Qurneh 21; Tuthmosis I; funerary garden). J. J. Taylor, *The Tomb of Paheri* (London, 1895), Pl. VII (El Kab 3; probably Tuthmosis III; funerary garden). *Rekhmire*, Pl. XX (Qurneh 100; Tuthmosis III-Amenhotep II). *Anc. Egy. Paint.*, II, Pl. LXIX (BM 37983; Tuthmosis IV or Amenhotep III).

<sup>107</sup> Beside the lobeless and lobed palmettes, a class of volute palmettes, typical for the Amarna period, has been distinguished (CLs 65-80, 84, 86, 87). There is no difficulty in explaining their production by the customary Egyptian additive procedure. Combinations of three-leaved palmettes with volutes are most common (CLs 65-68, 71-76, 86). Although a large number of foliage units could occur (CLs 69, 70, 77-78), semi-circular crowns do not appear.

## SOURCES FOR THE FIGURES

- XI.1 Lacau, *Sarcophages antérieurs au Nouvel Empire I*, Pl. XVI, 28032
- XI.2 Petrie, *Qurneh*, Pls. XXII, top, middle
- XI.3 JEA X (1924), Pl. XVII, bottom, left
- XI.4 MÄS Berl. I, 30, Fig. 16
- XI.5 Wallis, *Egyptian Ceramic Art*, 1900, p. 11, Fig. 20
- XI.6 Xanthoudides, *Vaulted Tombs of the Mesara*, Pl. VIII, 680
- XI.7 PM I, 118, Fig. 87, g
- XI.8 Xanthoudides, *op. cit.*, Pl. XIII, 1041
- XI.9 Matz, *Die frühkretischen Siegel*. Pl. XIII, 18
- XI.10 Aberg, *Chronologie IV*, 231, Fig. 448, 1
- XI.11 BMC I, 83, Fig. 104 A 505
- XI.12 PM IV, 137, Fig. 107
- XI.13 PM IV, Pl. XXX, B
- XI.14 PM I, Pl. III, right
- XI.15 PM IV, Pl. XXX, A
- XI.16 *Festos*, Pl. XVII, C
- XI.17 PM II, Pl. IX, C
- XI.18 PM I, 197
- XI.19 BSA XIV (1912-3), 16, Fig. 3, a
- XI.20 PM I, Pl. III, right
- XI.21 PM I, 246, Fig. 186, b
- XI.22 PM I, 277, Fig. 207, a
- XI.23 Newberry, *Scarabs*, Pl. XIV, 21
- XI.24 *Ibid.*, Pl. XIX, 31
- XI.25 Brunton and Engelbach, *Gurob*, p. 9, Pl. XXIII, 3
- XI.25A Gotsmich, *Entwicklungsgang der Kretischen Ornamentik*, p. 30, Fig. 13

- XI.26 PM I, Pl. III, left
- XI.27 PM IV, 136, Fig. 106
- XI.28 PM II, 215, Pl. IX, d
- XI.29 BSA, IX (1902-3), 305, Fig. 4
- XI.30 PM II, Pl. IX, e
- XI.31 *Ibid.*, f
- XI.32 *Ibid.*, d
- XI.33 Festos, 214, Fig. 93, right
- XI.34 Chapouthier, *Ecritures minoennes au Palais de Mallia*, p. 10, Fig. 7, a
- XI.35 Festos, Pl. XX, b
- XI.36 PM I, 246, Fig. 186, c
- XI.37 PM II, Pl. IX, d
- XI.38 PM IV, 132
- XI.39 PM I, 241, Fig. 181
- XI.40 Festos, p. 283, Fig. 166, left
- XI.41 MÄSBerlin, I, Pl. VIII, 36, second and eighth from left
- XI.42 Petrie, *Tell el Amarna*, Pl. XVIII, 391
- XI.43 MÄSBerlin, I, Pl. VIII, 36, fourth from left
- XI.44 *Ibid.*, Pl. VIII, 36, ninth from left
- XI.45 Carnarvon and Carter, *Five Years Exploration at Thebes*, pp. 66, 81, Pl. LX, 1
- XI.46 *Ken-Amun* I, pp. 27, nos., 41, 42; Pls. XVI, CXXIV, upper right
- XI.47 *Ibid.*, p. 31, no. 113; Pl. XXII
- XI.48 Daressy, *Fouilles de la Vallée des Rois* (Cat. Caire), Pl. XXII, 24144