THYMIATERIA WITH DROOPING PETAL-CAPITALS: DISTRIBUTION AND FUNCTION OF AN (EARLY) IRON AGE CLASS OF OBJECTS*

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INTRODUCTION

This article discusses the subject of thymiateria with drooping petals. It deals with this class in relation to two closely connected subjects: drooping petal-capitals and thymiateria in general.

Thymiateria with drooping petals form an object group, which originated in 18th dynasty Egypt (1554/51 - 1305 B.C.), but became popular in the Mediterranean world between the Geometric and the Roman period (Figs. 1, 3). These thymiateria are characterized by one to three drooping petal-capitals serving as a decorative element. Despite this unifying element, they can be divided into two groups.

One group, which is mainly found on Cyprus and Samos, shows rising volutes rolling up in their upper third and being held together by a supporting ring (Fig. 4). In all cases a loose bowl may be reconstructed on these volutes, in which aromatic substances were burned. Underneath this volute-construction are the drooping petals. The lower end of this thymiaterion is a cylindrical socket for placing it onto a stand or staff, which will have been of wood in most cases. Remains of wood were found in some of the sockets. Of the total object, therefore, only the bronze middle part between incense bowl and stand is preserved.

The second group, on the other hand, is in most cases fully preserved. Here, the incense bowl is mounted upon only one drooping petal-capital and the stand - a conical stand firmly attached to the upper part - is also of bronze (Fig. 5). The form of the drooping petals is the same for both groups.

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* The present article is a summary of my master's thesis "Thymiateria mit Blattüberfall-Kapitellen, eine früheisenzeitliche Denkmälergruppe im Mittelmeerraum. Untersuchungen zur Verbreitung und Funktion" as presented at the University of Hamburg in October 1998. I have to thank Prof. H.G. Niemeyer for encouragement and support, C. Brehme and N. Appel for technical and graphical advice as well as Dr R.F. Docter for encouraging me to publish this English version.

Fig. 1. Distribution of thymiateria with drooping petal-capitals in the Mediterranean (map: N. Appel).

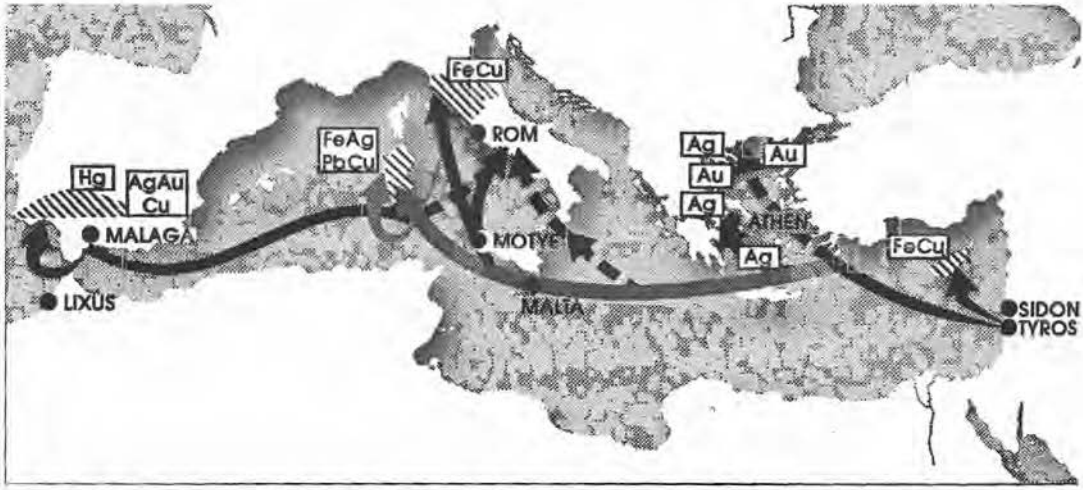


Fig. 2. Phoenician trade routes to the metal deposits in the Mediterranean (after Niemeyer 1994, fig. 1, modified by N. Appel).

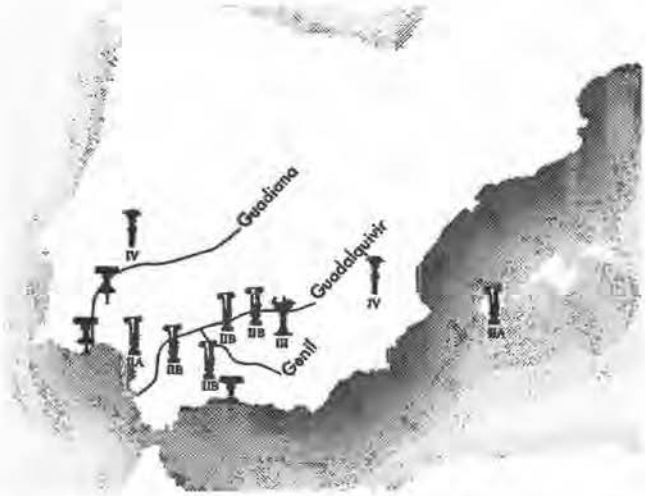


Fig. 3. Distribution of thymiateria with drooping petal-capitals on the Iberian Peninsula according to M.L. de la Bandera Romero and E. Ferrer Albelda (1994a and 1994b) (map: N. Appel).

This article will take a closer look at the 99 thymiateria known to the author. An examination of their form as well as that of other monumental groups showing the same drooping petals, their development and the relation between the differing groups is attempted. Following is a view at the religious and social contexts in which thymiateria with drooping petals have been found. This raises the question not only about their immediate function (often enough the thymiateria are still being addressed as lamp-stands in the literature), but also about their role in cult and society. Furthermore, the role of the thymiateria as widespread cultvessels in the Phoenician society or as an indicator of contact between Phoenicians and local populations in the entire Mediterranean will be examined.

Even if a digression to thymiateria in other materials, e.g. clay or limestone, will be necessary, this article will mainly focus on bronze ones. The other object groups showing drooping petal-decoration - columns and furniture - will be mostly neglected as well. The examination begins with the earliest known examples of thymiateria with drooping petals, from 18th dynasty Egypt (1554/51 - 1305 B.C.), and ends in Roman times; it will not incorporate the certainly related Roman bronze or marble candelabra.

Fig. 4. Thymiaterion stand B 468 (No. 43) from Samos with volutes, drooping petal-capitals and cylindrical socket (after Jantzen 1972, pl. 41).

THE FORM OF THE THYMIATERIA WITH DROOPING PETALS

The thymiateria examined here consist of three elements: an incense bowl, which is either fixed to the stand or loosely placed onto the supporting structure made of volutes, one or more drooping petal-capitals as purely decorative element, and a stand, a staff or another construction for placing the thymiaterion upon. The unifying element of the thymiateria examined here is the middle part with one, two or three

Fig. 5. Thymiaterion from the Cerro del Peñón (no. 94) with fixed incense bowl, drooping petal-capital and conical stand (after Niemeyer 1970, pl. 21).

drooping petal-capitals inserted between the stand and the bowl or supporting volute structure. However, some of the thymiateria mentioned in this paper are lacking the drooping petals. They are included for the

obvious likeness of their form of incense bowl and stand to other examples, and to complete the picture. The incense bowl or its support can take very differing forms, as well as the stand or cylindrical socket below.

The form of the upper part

The thymiateria with drooping petals can be divided into two groups: thymiateria with a volute construction, onto which a loose incense bowl is placed (Fig. 4), and those on which the incense bowl was firmly mounted above the drooping petal-decoration (Fig. 5).
The supporting construction for the loose incense bowls always consists of three rising volutes first going up straight, then rolling up in their upper third. The volutes end in most cases by simply narrowing towards a point, but can also be found broadening into snake heads (Olympia, no. 73, Malta, no. 71 and Bithia, no. 78, Martelli 1996, fig. 16) or can take an organic floral form like on thymiaterion no. 41 from the isle of Rhodes (Fig. 6).
In most cases the volutes are held together by a supporting ring, which stabilizes the construction immediately below the point where the volutes start to roll up. On some pieces, like e.g. no. 57 from Samos, this ring is omitted. However, there are some thymiateria on which not only the ring but also rods leading from the middle of the volutes up to the rolled up points give additional support. An example for this is no. 10 from Cyprus. A unique piece is the one from Idalion on Cyprus, presently in Cracow (no. 37). On this thymiaterion the space between the volutes is filled up forming a socket, which suggests a use as torch holder.
Extraordinary is the thymiaterion from Villagarcía de la Torre (Fig. 7, no. 89), where Hathor figures take the place of the volutes on which the incense bowl is firmly fixed. These Hathor figures are, as otherwise usual for the volutes, supported by a ring. A female figure is also found supporting a drooping petal-capital on the thymiaterion from Albacete (Fig. 8, no. 87).
The form of the incense bowls differs widely. For the thymiateria examined here eight different forms can be defined.
1. Four pieces have a flat, open bowl with flat base and a broad straight rim (Safara, no. 82, Cástulo, Fig. 9, no. 90, Albacete, Fig. 8, no. 87 and Walters Art Gallery, no. 7). On the rim of the thymiaterion from Cástulo two deer and a lioness are seated.
2. A deep incense bowl in the form of an upside-down bell, the opening of which strongly narrows inwards and ends in a short cylinder going straight up can likewise be observed on four examples (two

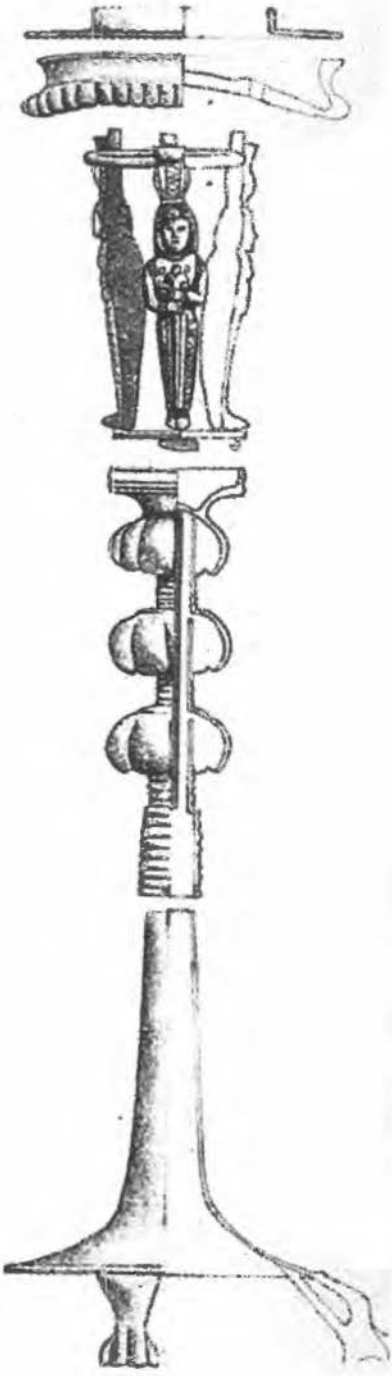
Fig. 6. Thymiaterion stand 673 from Lindos (no. 41) with organic floral form (after Blinkenberg 1931, pl. 27).

pieces from Tamassos, nos. 19 and 20, one from Shechem, no. 9 and one formerly in the Collection de Clerq, now in the Louvre, Fig. 10, no. 6). On the thymiaterion from Shechem remains of a small chain can be observed once linking the bowl with the upper cover. The cover of a thymiaterion depicted on a trunk from the Tomb of Tutanchamun may be mentioned in comparison (Settgast 1980, 116-117); its bowl has the same form and is linked to the cover by a small hook.[1]

3. Incense bowls in the form of a rosette, as found on the thymiateria from Villagarcía de la Torre (Fig. 7, no. 89) and from the Cerro del Peñón (Fig. 5, no. 94) have parallels independent from thymiateria.[2]

[1] However, this might as well depict a trail of incense smoke.

[2] Tongue-phiales from tombs in Southern Etruria as well as from Latium from the 7th century B.C. are probably imports from Asia Minor and Mesopotamia (Niemeyer/Schubart 1965, 77). P.H.G. Howes Smith (1984) also considers them to be Eastern imports in his report on Etruscan and Italian rosette bowls, even of being one of the main Oriental import goods. Maybe the place of origin of these bowls is Asshur. A very early rosette bowl from the 9th century B.C. comes from there (Andrae 1938, 129, pl. 63c). Likewise in an Assyrian context a rosette bowl of bronze from the Samaria region is placed by R. Hestrin and E. Stern (1973, 152). However, they also take into account that this bowl may have been manufactured in a Syro-Phoenician centre, where Assyrian models were imitated. G. Markoe (1985) places the many rosette bowls described by him also into a Phoenician context.



< Fig. 7. Thymiaterion from Villa garcía de la Torre (no. 89) with Hathor figures instead of volutes (after de la Bandera Romero/Ferrer Albelda 1994a, fig. 2).

^ Fig. 8. Thymiaterion from Albacete (no. 87) with female figure supporting drooping petal-capital (after Olmos/Fernández Miranda 1987, fig. 2).

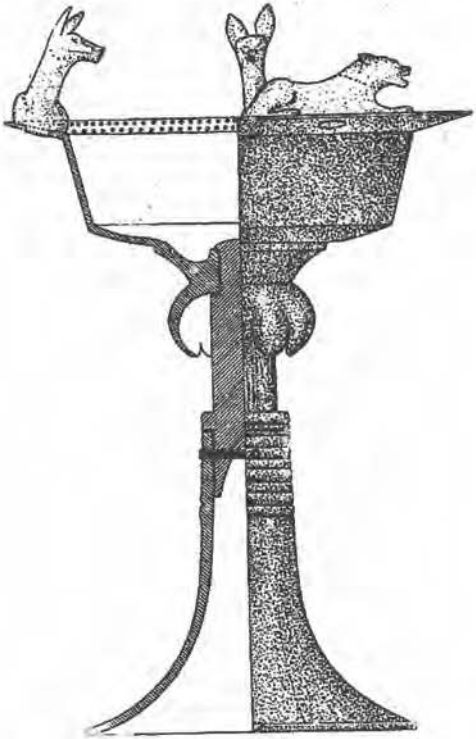


Fig. 9. Thymiaterion from Cástulo (no. 90) with two does and a lioness on the rim (after Blázquez 1975, fig. 10).

Fig. 10. Thymiaterion from the Collection de Clerq (no. 9) (after Niemeyer 1970, fig. 1).

H. Luschey (1939, 7) pointed to the ritual use of these rosette-bowls, the shape of which sometimes overlaps with the *omphalos*-bowls. It is possible that the form of these bowls known from the sacral realm inspired the form of the incense bowls used likewise in a ritual context.
4. From the necropolis La Joya in Huelva (no. 91) and from Ibiza (no. 92) two thymiateria with double incense bowls are known. Origin and function of this construction can only be guessed at. Possible is a use for two differing incense substances or a use of the lower bowl for coal, the heat of which drove the smell from the substance placed in the upper bowl without burning it.
5. Two limestone thymiateria from Megiddo (Fig. 11) and Ekron have

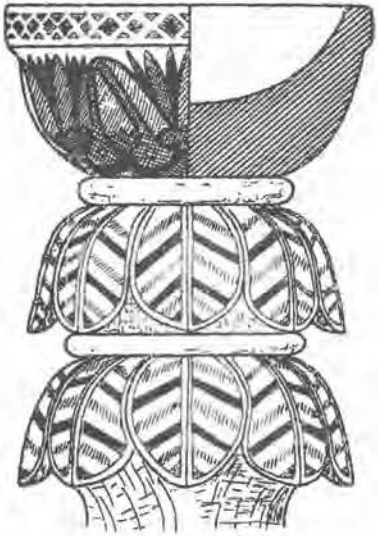


Fig. 11. Limestone thymiaterion from Megiddo (after Kempinski 1989, fig. 34,7).

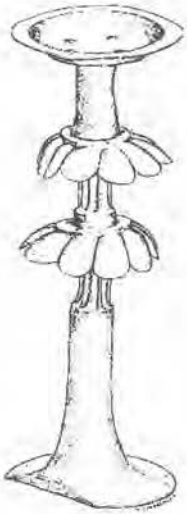


Fig. 12. Thymiaterion from Palaepaphos (no. 38) (after Flourentzos 1997, fig. 5).

a plain deep incense bowl without separate rim. This form is only known for clay or limestone thymiateria. Even if the material would allow more complex forms they obviously were never favoured.
6. A small shallow incense bowl with a flat rim is found on a thymiaterion from Palaepaphos on Cyprus (Fig. 12, no. 38). Since this thymiaterion was found in an Early Cypro-Geometric Tomb, the burial in which was dated to the 2nd half of the 11th century B.C. (Flourentzos 1997, 214), it may be considered to be one of the original forms of these objects.
7/8. Finally two thymiateria with unusual form have likewise unusual incense bowls. The example from Toprak-Kale (no. 1) has a bowl in the form of a straight flat cylinder and the Egyptian piece from Aniba (Fig. 13, no. 2) a flat rounded bowl without base or separate rim.

The form of the drooping petals

Considering the many differing forms of incense bowls and stands, the form of the drooping petals is astonishingly homogeneous. In most

Fig. 13. Thymiaterion from Aniba (no. 2) with loose incense bowl and conical stand of open-worked metal decoration (after Krauspe 1997, 90).

cases the outline of the blossom approaches that of a flattened sphere. From the lower part of this form the single petals - eight in most cases - are worked. Their lower end is round or somewhat flattened and curves inward following the form of the flattened sphere. The petals stand close together, the small fissures between them, however, reach up above the middle of the sphere's surface.

Only four of the thymiateria examined here show petals of different forms. Those of the Samian piece B 1598 (no. 63) are wide open and stand wide apart from each other in the lower part. The spherical form has completely been abandoned. Likewise on the early thymiaterion

from Palaepaphos (Fig. 12, no. 38) the petals stand wide apart and show no spherical form. A further example for a differing petal form comes from Etruria. The petals of the piece from Cerveteri in the Museo Gregoriano Etrusco (no. 75) are longer than usual and do not curve inward at the lower end, but fall straight down instead. Moreover, the petals are not only small and wide apart, but also come in a greater number (12 in the upper blossom, 11 in the lower) than otherwise usual. The thymiaterion from Toprak-Kale (no. 1) has a completely different petal form. The upper side of the petals has a convex inner part. In addition the blossom form is not spherical, but the petals lead first straight from the stand, then fall straight down, which gives them an edgy appearance which is in contrast to the otherwise emphasized roundness of the petals.

The number of blossoms on a thymiaterion can vary from one to three; they can, however, also be missing altogether. Not in all cases has it been possible to identify the number of blossoms. Of the 56 thymiateria on which the number of petals could be established, six have no drooping petal-capital at all, 12 examples one, 26 pieces two and 13 thymiateria three blossoms. The piece from Toprak-Kale with its five drooping petal-capitals is an exception. A general regional pattern does not emerge; only on the Iberian Peninsula, thymiateria with one drooping petal-capital are the predominant form.

A very different form shows a clay thymiaterion from Tell Kazel and the comparable examples mentioned by E. Gubel (1995, 120-121). Here the petals, which remind of the otherwise usual drooping petal-capitals, are directly attached to the incense bowl.

The forms of the stands

It remains unclear whether there was a favoured or standard form for the stands. Due to the lack of examples for preserved stands on which the socket was placed (the only known examples are nos. 3-5) it is most likely that they were of wood and have decayed without leaving a trace. This supposition is strengthened by the finds of wooden remains in the sockets of the thymiateria from Amathus (no. 25) and from Cerveteri (no. 76). The three thymiateria from the Tomb of Tabnit in the king's necropolis of Sidon give an impression of what the wooden stands might have looked like. Here the bronze upper parts with the volutes and the drooping petals are placed onto long bronze staffs, which end into clumsy tripods. It is possible, however, as suggested by U. Jantzen (1972, 45), that long wooden staffs which were simply stuck into the clay floor took on the function of stands.

The thymiateria with drooping petals, which *do* give a clue, are rough-

ly divided into two groups according to their stands. A great number of them have a cylindrical socket at the lower end for placement onto some stand construction, which has not been preserved (Fig. 4). This socket often shows two decorative rills at the upper as well as at the lower end and has in many cases rivet holes for fixation to the actual stand. Some of the sockets narrow towards the middle to a double conical shape and have rills at the narrowest part.

Two thymiateria from Cyprus (nos. 17-18) have a longer socket than usual. These two sockets have a double conical shape and are decorated with rills on their middle part instead of at the ends.

Noticeable is the solution found for the thymiaterion from Safara (no. 82), which takes up the socket as a decorative element without the function of headpiece for a stand. Likewise unusual is the function of the socket of the thymiaterion from Cástulo (Fig. 9, no. 90), which is not to be placed onto a stand, but is instead the upper part of a conical stand into which the incense bowl was plugged.

Some unusual examples of bronze stands onto which a socket was placed are preserved. The thymiaterion from Villagarcía de la Torre (Fig. 7, no. 89) has a socket with rills along its entire length, which is placed onto a conical stand resting on lion's paws. However, thymiateria with conical stands are the second largest group of thymiateria besides those with sockets, so that in this case an integration of the two forms by the artist can be assumed ("*Mischwesen*").

Similar to the thymiaterion from Villagarcía de la Torre is the one in the Walters Art Gallery in Baltimore (no. 7), which is likewise placed onto a conical stand. Here also, a confusion of the socket form and the form with conical stands might have taken place. The socket of the much-disputed example in the Museo Arqueológico Nacional de Madrid (no. 93) sits on a short stand, which originally stood on three feet. It is, however, uncertain, whether this stand belonged to the thymiaterion from the start, is an antique addition, or was even added to the piece only in the Middle Ages (Almagro Gorbea 1974, 44).

The group of thymiateria with conical stands (Fig. 5) includes 11 examples, seven out of these having the same overall shape: above the conical stand only one drooping petal-capital can be found, the incense bowl is firmly fixed to the stand. The thymiateria from Tamassos (nos. 19-20), from Cástulo (Fig. 9, no. 90), from Cerro del Peñón (Fig. 5, no. 94), from Shechem (no. 9), from the Collection de Clerq in the Louvre (Fig. 10, no. 6) and in the Walters Art Gallery (no. 7, a "*Mischwesen*") show these common features.

This leads to the assumption of a common model for these seven thymiateria with conical stand, one drooping petal-capital and a firmly fixed incense bowl which differs from the otherwise usual form with

volutes, more drooping petal-capitals and cylindrical socket. Since the conical stand and the fixed incense bowl show less filigree than the volutes and the cylindrical socket, which can easily be worked in bronze, the origin of the form with conical stand might be looked for in some other material. It is likely that the bronze examples of this subdivision try to imitate a form originating in clay or limestone.
The thymiaterion from Vouni (no. 30) is also of this form, but shows no drooping petal-capital. As mentioned above, the piece from Villagarcía de la Torre (Fig. 7, no. 90) is an exception in its entire form. Here the conical stand rests on three lion's paws. Finally, the thymiaterion from Aniba (Fig. 14, no. 2) has a loose incense bowl placed onto the stand with no drooping petal-capital. However, this piece is set apart from the other thymiateria also by its age. Likewise of very old age is the thymiaterion from Palaepaphos (Fig. 13, no. 38), which has a conical stand and a fixed incense bowl but two drooping petal-capitals.

The forms of the covers

For two of the thymiateria included in this study a cover for the incense bowl is preserved. The cover of the thymiaterion from Villagarcía de la Torre (Fig. 7, no. 90) is a flat disc, in the middle of which a short cylinder is rising. The diameter of the cylinder equals roughly half the diameter of the disc; the hole is quite large. Therefore it is likely that the upper part of this cover is missing.
The cover of the thymiaterion from Safara (no. 82) is complete. On a pedestal with triangular gaps, through which the smoke could escape, lies a bull. Small plugs set under the rim of the pedestal prevent the construction from shifting on the incense bowl. W. Culican (1980, 91) vividly describes how the smoke would mysteriously wrap the animal in smoke when the thymiaterion was in use. In connection with the cover of the thymiaterion from Safara two similar pieces from Codosera and from the Collection Calzadilla in Badajoz are mentioned (Culican 1980, 91; Almagro Gorbea 1977, pl. 51). But on these covers, which likewise are in a pedestal form with triangular gaps, a deer is placed instead of a bull. The thymiaterion from Shechem (no. 9) still shows the remains of a small chain, which most likely once linked a now missing cover to the incense bowl.
Two more covers are known without the respective thymiateria. A bronze bell-shaped cover with holes was found in Troy (Schmidt 1902, 259). Fixed to the upper end is a ring, which made the handling of this cover much easier.[3]

[3] Furthermore, W. Andrae (1938, 129 fig. 82a) describes a clay cover for a thymiaterion with a Parthian inscription.

Fig. 14. "Woman in the window", ivory relief from Nimrud (after Moscati 1988, 410).

Recently, a bronze thymiaterion with a conical stand, a fixed incense bowl but no drooping petals has been published, which is covered by a large semi-sphere (Gercke 1998, 143-146). Evenly distributed around the cover are four rows of holes through which the smoke could escape. This fine example is said to be from Asia Minor and dated by P. Gercke to the 6th century B.C.

THE DEVELOPMENT OF THE THYMIATERIA WITH DROOPING PETALS

Drooping petals on other objects

Drooping petals are quite common in architectural contexts, e.g. as capitals for columns. An example known in many variations is found in the balcony columns belonging to the motif of the "woman in the

window" (Fig. 14; Barnett 1957, 145-146; Gehrig/Niemeyer 1990, 125). This motif depicts a decorated woman's head looking out of a window or from a balcony. This window or balcony is closed in the lower part by a balustrade consisting in most cases of four columns with drooping petal-capitals on top.

Variations of this motif might show only three columns instead of four, as in an example from Arslan-Tash (Gehrig/Niemeyer 1990, 125), or might even lack the woman's head, as known from stone stelae from Cyprus (Raubitschek 1973, 703). Never missing, however, are the balustrade columns with the drooping petal-capitals. Therefore, these seem to be a characterizing feature of the depicted building. R.D. Barnett (1957, 145-146) concluded that the building is a temple, more precisely a temple of Astarte.

The probably most prominent example of drooping petal-capitals in architecture comes from the Temple of Solomon in Jerusalem. In the bible (1 Kings 7: 15-21; also 2 Chronicals 3: 15-17) the making of its columns by Hiram of Tyre is described:

"He cast in a mould the two bronze pillars. One stood eighteen cubits high and it took a chord of twelve cubits long to go round it; it was hollow, and the metal was four fingers thick. The second pillar was the same. He made two capitals of solid bronze to set on the tops of the pillars, each capital five cubits high. He made two bands of ornamental network, in festoons of chain-work, for the capitals on the tops of the pillars, a band of network for each capital. He made pomegranates in two rows all round on top of the ornamental network of the one pillar; he did the same with the other capital. The capitals at the tops of the pillars in the vestibule were shaped like lilies and were four cubits high. On the capitals at the tops of the two pillars, immediately above the cushion, extending beyond the network upwards, were two hundred pomegranates in rows all round on the two capitals. Then he erected the pillars at the vestibule of the sanctuary. When he had erected the pillar on the right side, he named it Jachin; and when he had erected the one on the left side, he named it Boaz. On the tops of the pillars was lily-work. Thus the work of the pillars was finished."

This description becomes clearer when considering that Hiram came from Tyre, where he could have been familiar with the Melqart-Temple as an example for an important main temple. As shown on a relief fragment from Nineveh, which is lost today but known from a drawing by Layard (Niemeyer 1970, 100, Abb. 2), this temple had two columns with drooping petal-capitals before its entrance. G. Falsone (1988, 228-229) points to the fact that already the father of Hiram was a bronze worker in Tyre, and from him the Phoenician craftsman Hiram will have learned the trade in the Phoenician tradition (cf. 1 Kings 7: 13-14).

Herodotus (II.44) describes this Melqart-Temple of Tyre. He mentions two columns, one of which was of gold, the other one of emerald, which at night shone brightly. Even if Herodotus explicitly describes the columns as standing in the temple, it has been proposed (Niemeyer 1990, 472-473) that they are identical with the columns in front of the temple depicted on the relief fragment from Nineveh, and therefore were the model for the columns of the temple of Solomon in Jerusalem. Also in Cádiz in modern Spain once stood a temple with columns with drooping petal-capitals. One of those capitals was recovered from the sea at the reef of San Sebastian, west of Cádiz (Niemeyer 1990, 472-473). This capital is similar to another example of columns with drooping petal-capitals on a clay model of a temple from Idalion on Cyprus (Moscati 1988, 163). This clay model gives a good example of how such columns with drooping petal-capitals might have looked like.[4]
Drooping petals also appear as a decorative element on furniture. An example for this is the reclining chair of Assurbanipal on the relief from the Northern palace in Nineveh, which shows the ruler at a banquet (Gubel 1989, 47-48). The drooping petals decorate the lower part of the feet of the chair, while the upper part shows a relief with the "woman in the window". In this way the drooping petals on the feet are doubled in the balustrade columns of the relief.
In some cases thymiateria with drooping petals have found a new function as substructure for Oriental vessels, as can be observed in an example from the Tomba Barberini. According to H. Kyrieleis (1966, 1-24), the fashion to raise large bulgy vessels from the ground to make their appearance more impressive developed in Geometric times. In some cases the otherwise usual tripods used for this effect have been substituted by thymiateria.
Finally there is a Phoenician jar, found in Tomb 17 in the necropolis of La Joya in Huelva. The handle of this jar is an Oriental import, but its fixation to the jar betrays its local production, according to B. Grau-Zimmermann (1978, 161-170). The neck of the object is decorated with a drooping petal wreath.

Function of the thymiateria

Although the thymiateria have repeatedly been addressed as torch-holders (e.g. Jantzen 1972, 46) or lamp stands (e.g. Jantzen/Tölle

[4] Thymiateria with drooping petals, which stood as high as columns with drooping petal-capitals, can be reconstructed for the Temple of Aphrodite in Paphos on Cyprus. In this temple the thymiateria were as huge that by their size (they were reaching to the ceiling of the temple) they assumed the appearance of columns, as is shown e.g. on late Cypriote coins from the second half of the 2nd century A.D., Hill 1964a, pl. 17,4-6, 8-10.

1968, 94), the evidence for their use as incense stands is dominating. The most obvious hint to this use is the occurence of asphalt in the thymiaterion from Shechem (no. 9), since this substance is known to have been used as incense in antiquity (Stern 1980, 110). Furthermore, the existence of covers for some of the pieces can only be explained with their use as thymiateria. A very fine example for this is the thymiaterion from Safara (no. 82).

The use as thymiateria seems clear for the pieces with a fixed incense bowl. The known examples have no device for the fixation of a wick. Therefore, only the possibilities for a use with liquids or incense remain. One should note that on the relief of Assurbanipal from the North palace in Nineveh bowls of the same kind are used as drinking bowls and as incense bowls on the thymiateria (Schneider-Herrmann 1941, 1). However, illustrations of drinking bowls with drooping petals are not known. A use for these objects as thymiateria remains the most probable.

For the thymiateria without a fixed incense bowl it is precisely the absence of this bowl, which gives an explanation for its use. If in a bowl shaped lamp the oil is running short it can be easily refilled. An incense bowl on the contrary has to be emptied when the incense has burned down. In this case it is an advantage if the old bowl can be substituted for a new one without having to remove the entire, often heavy instrument for cleaning from the - maybe sacred – room (Matthäus 1992, 225).

Further arguments for the use of the examined objects as thymiateria are the many depictions with incense material. On a scarab of green jasper from Tharros on Sardinia a thymiaterion is shown in the bowl of which incense is heaped (Wiegand 1912, 27). Flames rise from the incense. Another example is a scarab from Ibiza, likewise showing a thymiaterion with burning incense (Gubel 1987, 44 pl. 7,17).

Finally W. Culican (1980, 86) came forth with the hypothesis that the drooping petals might imitate the blossoms of the lily *Lilium Chalcedonium*, which is local to the Levant coast, and that likewise the burning incense might imitate its smell.

There are, however, some finds of lamps in connection with the thymiateria. Even if recent research has confirmed that the four-mouthed lamp from the Tomb of Isis in Vulci (No. 74) does not belong to the thymiateria,[5] there remains the mentioning by I.K. Raubitschek (1973, 707) of finds of terracotta lamps together with bronze stands in Tamassos and Orion on Cyprus, in Sidon, on Malta and on Sardinia.

[5] F. Bubenheimer, personal communication, publication forthcoming.

However, there it still remains unclear, how the different materials for lamps and stands should be explained. It is furthermore tempting to see the socket formed by the filled spaces between the volutes of the thymiaterion from Idalion (no. 37) as a torch-holder (Moczulska 1978, 195 pl. 2 [*non vidi*]; cf. Martelli 1996, 58).

The possibility that some of these objects found use as devices for light or braziers certainly cannot be excluded. Especially in the cult of Baal Hammon, who is characterized as "Lord of the Braziers" (Culican 1968, 81), and in whose sanctuary in Meniko on Cyprus thymiateria with drooping petals have been found (Moscati 1988, 161-162), the borderline between thymiateria and braziers is thin.[6]

The question comes to mind whether the two different forms of thymiateria with drooping petals - with fixed incense bowl and loose incense bowl - might not have had different functions in a common ritual context.[7] The one type might have served as incense stand, the other one as brazier. The distribution of finds does however not support this supposition. There is no case known where thymiateria of the different forms have been found in the same place.

Obviously the function of thymiateria was independent of their size. The size varies from a miniature thymiaterion found on Cyprus (Karageorghis 1977, 40) to the huge column-like thymiateria in the temple of Aphrodite in Paphos. The characteristic form with the drooping petals made them understood as thymiateria for any person of their time.

Distribution and chronology

Often dating of thymiateria consisting of a stand and an incense bowl is rather difficult, since their form hardly varied and a dating from the context of the finds - if known at all - is not always possible. Consequently, most of the dates given here are only tentative since they were established at times when the state of research was not very advanced.[8]

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[6] This problem of separation between the two is also treated by M.D. Fowler (1985, 27).

[7] H.G. Niemeyer, personal communication.

[8] According to H. Matthäus (1992, 216-217), only the ivory thymiateria from Salamis are securely dated, to the turn of the 8th to the 7th century B.C.; the same precision holds for the bronze examples found near Rabat on Malta (between 700 and 675/650 B.C.), the Cypro-Archaic pieces from Tamassos and Amathus, the thymiateria from the Tomb of Tabnit from Sidon (end of the 6th century B.C.) and finally the Iberian thymiaterion from Alhonoz (5th - 4th century B.C.). The thymiaterion from Shechem, which is dated by means of the Attic pottery from the same context to the 5th century B.C., may be added to this list (Stern 1980, 105) and the one from Palaepaphos on Cyprus (Fig. 13, no. 38), dated by the Cypriote pottery in the tomb to the very early phases of the Cypro-Geometric period, i.e. the second half of the 11th century B.C. (Flourentzos 1997, 214).

They were in use with slight variations throughout the Mediterranean from the middle of the 2nd millennium B.C. till well into Roman times (Fig. 1). A peak in the distribution of this object group, however, can be observed during the 7th - 6th centuries B.C.
The earliest examples for thymiateria with an incense bowl on a stand are known from Egypt. The thymiaterion from Aniba (Fig. 13, no. 2) belongs to the 18th dynasty (1554/51 - 1305 B.C.). The depiction of a thymiaterion on the trunk from the Tomb of Tutanchamun dates in the time of his reign from 1347/46 - 1337/36 B.C., likewise in the 18th dynasty.
The thymiaterion from Palaepaphos (Fig. 12, no. 38) is the first known example of a thymiaterion with drooping petals in the Mediterranean area; it dates to the Early Cypro-Geometric period, more precisely from the 2nd half of the 11th century B.C.
After this first trace of drooping petals about 100 years pass until Hiram builds the temple of Solomon (who reigned from 965-926 B.C.) in Jerusalem with the columns with drooping petal-capitals. Before that the Melqart-temple of Tyre had such columns.
The next joint occurrence of thymiateria and drooping petals is known in the limestone thymiateria from Megiddo (Fig. 11) which are dated into the 10th - 9th centuries B.C. (e.g. by W. Culican 1960/61, 50). Somewhat later, about 860 B.C., the relief of the ruler Salmanassar was made, which shows him erecting his statue at Lake Van. The thymiaterion depicted here again has no drooping petals.
From the 9th century B.C. examples of rosette bowls as were later used on thymiateria are known. One example of such a bowl comes from a rich tomb from the late 9th century B.C. in Asshur (Andrae 1938, 129 pl. 63c). In the 8th century B.C. there are again depictions of drooping petals in architecture. The motif of the "woman in the window" (Fig. 14) originates in this time. As examples mention is made of the relief from Arslan-Tash (Gehrig/Niemeyer 1990, 125) and the Nimrud ivories (Gehrig/Niemeyer 1990, 136; Mallowan 1966, 437, 522), one of which can be dated to 730-700 B.C. (Mallowan 1966, 522). From the late 8th century B.C. dates also the thymiaterion from Toprak-Kale (no. 1) near the Mount Ararat. It can be dated by an inscription to the reign of Rusa I (732 [?]-714 B.C.). E. Gubel (1995, 121) dates the clay thymiaterion from Tell Kazel in Syria with drooping petals on the incense bowl to the 8th century B.C. as well.
The first datable finds of thymiateria with volutes from Cyprus are the ivory thymiateria from the necropolis of Salamis (nos. 33-35); V. Karageorghis (1975, 119) dates them to ca. 725 B.C. However, these must have had, as already remarked by I.K. Raubitschek (1973, 703), predecessors in bronze. Ivory as material for thymiateria can for obvi-

ous technical reasons not stand at the beginning of the line of development. The Sardinian thymiaterion from S. Vero Milis (no. 80) is dated to the end of the 8th century B.C. by G. Tore and interpreted in a Nuraghic context (1985, 67). The relief sculptures of the ruler Asitavanda were made in Karatepe around 700 B.C.; they depict drooping petals on a thymiaterion as well as on columns supporting it. These illustrations can be dated to the late 8th century or to the early 7th century B.C. (Frankfort 1954, 187). The thymiaterion from Santa Vittoria on Sardinia (no. 77) is also dated to the transition from the 8th to the 7th century B.C. by S.M. Cecchini (1969, 90) and interpreted in a Phoenician-Punic context. The same holds for the piece from Tadasuni (no. 81), dated by G. Tore (1985, 70). From Assyria many bronze bowls, which were used as drinking bowls, may alternatively have been used as incense bowls for thymiateria, as can clearly be observed on a relief of Assurbanipal in the British Museum (Schneider-Herrmann 1941, 12). A further rosette bowl, also of Assyrian type, is known from the region of Samaria (Hestrin/Stern 1973, 152).

During the 7th century B.C. the distribution network of thymiateria with drooping petals becomes tighter. The first examples from the Iberian Peninsula fall into the first half of this century: the thymiaterion from Cerro del Peñón (Fig. 5, no. 94), which is dated to the early 7th century by H.G. Niemeyer and H. Schubart (1965, 81-83; Gehrig/Niemeyer 1990, 214), and the piece from Cástulo (Fig. 9, no. 90; Blázquez 1975, 263). Should the general dating of the 29 Samian thymiateria to the 7th century B.C. by U. Jantzen (1972, 46) prove true, they would constitute a peak in our finds and hence, probably, in the production of these objects in the 7th century B.C. The thymiaterion with snakehead volutes from Bithia on Sardinia (Fig. 5, no. 78) is dated by G. Tore (1985, 67) to the middle of the 7th century B.C. Thymiateria with drooping petals in use at a libation ceremony as well as during a banquet are shown on the relief sculptures of the ruler Assurbanipal (668 - ca. 625 B.C.; Schneider-Herrmann 1941, 3). Furthermore, the thymiaterion from Ghain Qajjet on Malta (no. 71) is from this time. It was found in a rock tomb in which burials took place around 700 B.C. and 675/650 B.C. (Matthäus 1992, 217). Finally one should mention the thymiaterion from Northern Syria (no. 8) dating to this period (Meyer 1970, 22).

At the end of the 7th century B.C. stands the thymiaterion from Southern Portugal (no. 86; Blázquez 1975, 269). Two further examples are dated to the turn of the 7th to the 6th century B.C., the one from Safara (no. 82; Almagro Gorbea 1977, 250) and the thymiaterion from Vulci (no. 74; Tatton-Brown 1988, 133). A further example from this time is the depiction of a thymiaterion with drooping petals on a scarab from Tharros on Sardinia (Wiegand 1912, 27). On Cyprus three of the

thymiateria are generally within the Cypro-Archaic period (Cypro-Archaic I, ca. 700-600 B.C., Cypro-Archaic II ca. 600-475 B.C.): one from Amathus (No. 24; Karageorghis 1984, 915), the one from Angolemi (no. 26; Nicolaou 1967, 400) and a third one from Tamassos (no. 21; Matthäus 1992, 217). From the 6th century B.C. many other thymiateria from Cyprus as well as from the Iberian Peninsula are known. The thymiaterion from Los Villares de Andújar (no. 84) stands at the beginning of the 6th century B.C. (de la Bandera Romero/Ferrer Albelda 1994b, 48, 53), followed by the pieces from the necropolis of La Joya in Huelva (no. 91; Gehrig/Niemeyer 1990, 218) - into the same context falls the jar with drooping petals (Grau-Zimmermann 1978, 197) - and from Ibiza (no. 92; Almagro Gorbea 1970, 198). M.L. de la Bandera Romero and E. Ferrer Albelda (1994a, 54) date the thymiaterion from Villagarcía de la Torre (Fig. 7, no. 89) to the second half of the 6th century B.C. Already in 1914, J.L. Myres (1914, 497) dated nine of the Cypriote thymiateria (nos. 10-18) to the 6th century B.C. Even if such a general dating is hardly acceptable, there is more evidence for a vital use of thymiateria on Cyprus during the 6th century B.C. with the thymiaterion from Amathus (no. 25; Murray/Smith/Walters 1900, 103), the clay and limestone thymiateria from Meniko (Karageorghis 1963, 559) and the temple model from Idalion (Moscati 1988, 163). It becomes even more evident through a report by Herodotus about the dedication of a thymiaterion to Delphi by Euelthon of Salamis.[9] Also the two thymiateria of unknown origin from the antiquities market Basle (no. 96)[10] and in the Fitzwilliam Museum in Cambridge (no. 97; Nichols 1971, 75) are assigned a general date in the 6th century B.C. To the end of that century belong the two thymiateria from the tomb of Tabnit from Sidon (nos. 3 and 4; Matthäus 1992, 217).

The thymiaterion from Albacete (Fig. 8, no. 87; Olmos/Fernández Miranda 1987, 219) and the limestone example from Tell es-Samak (Zwickel 1990, 141 fig. 143) are dated to the turn from the 6th to the 5th century B.C. During the 5th century B.C. the evidence of thymiateria with drooping petals is rapidly thinning. Only the thymiaterion from Shechem (no. 9; Stern 1980, 105) can be dated to this time by means of Attic pottery from the same tomb. Furthermore, there are depictions of a thymiaterion with drooping petals (Moscati 1988, 398) and columns with drooping petal-capitals (Moscati 1988, 516) on two Sardinian scarabs from Tharros.

A scarab from Ibiza from the turn of the 5th to the 4th century B.C.

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[9] Herodotus IV.162; on the dating of this episode (second half of the 6th century B.C.), see Wiegand 1912, 29.

[10] *Münzen und Medaillen, AG Basel*, Auktion 34, 6. Mai 1967, n. 3.

shows again a thymiaterion with three drooping petal-capitals (Moscati 1988, 403). Securely dated to this time by the find context in a settlement horizon is also the thymiaterion from Alhonoz (No. 83; Lopez Palomo 1981a, 92).
From the 4th century B.C. date two coins of Datames of Tarsos (378-372 B.C.), on the front of which the God Baal is depicted with a thymiaterion while the back shows a thymiaterion with drooping petals between two men (Hill 1964b, 168 pl. 29,15).
On Malta clay and limestone thymiateria are still in use in the 3rd century B.C., e.g. the terracotta thymiaterion from a Phoenician sanctuary in Tas-Silg with the top of the stand ending in a lotus blossom (Ciasca 1984, 180) and the limestone thymiaterion from Tal Virtu with a stand and incense bowl, which can be dated to the 3rd century B.C. by the stamp on an amphora in the same find (Culican 1980, 96). In Sicily three stelae from Lilibaeum witness the further use of thymiateria in the 3rd century B.C. One of them shows a priest in an adoration gesture in front of a thymiaterion (Bisi 1968, 100), on two further ones women are depicted, one of which is likewise standing in an adoration gesture in front of a thymiaterion which is being prepared by the other woman (Bisi 1968, 100-101). All of these display two drooping petals, as far as can be recognised on the severely damaged depictions. At the end of the 3rd century B.C. two thymiateria had been painted onto the walls of Tomb II in Tell Sandahannah near Marisal (Albright 1942, 18). The monumental size and precious material (gold), which the painting tries to capture, witness the fact that the objects themselves were really precious and probably considered prestigious at that time.
After the 3rd century B.C. there are hardly any traces of bronze thymiateria with drooping petal-capitals. They continue however in similar form with the Roman bronze and marble candelabra (e.g. Cain/Dräger 1994, 239). The countless depictions on Roman wall paintings suggest a decorative use in private rooms rather than a ritual use. These Roman objects are also shown on Southern Italian vases and Roman coins. The emperors Domitian, Hadrian and Antonius Pius choose candelabra as a motif for their coins (Wiegand 1912, 39).
The thymiaterion seems to have its origin in Egypt, even if the pieces from the 18th dynasty do not yet have drooping petals, or only show them in a different form like the thymiaterion from Aniba (Fig. 13, no. 2). The drooping petals first appear on Cyprus during the second half of the 11th century B.C. and in the Phoenician-Palestine region during the 10th century B.C. on the Melqart Temple of Tyre and the Temple of Solomon in Jerusalem. Only somewhat later they appear on the thymiateria from Megiddo (Fig. 9). From the turn of the 8th to the 7th century B.C. onwards the thymiateria with drooping petals appear all

around the Mediterranean as far as the Iberian Peninsula (Cerro del Peñón). A peak in the distribution during the 7th and 6th centuries B.C. can hardly be ignored. Thymiateria remain popular until the 5th century B.C. when the evidence is thinning out, while related forms like the Roman bronze and marble candelabra remain in use until well into the first millennium A.D.

Development of the form

The earliest examples for the thymiateria examined here are the Egyptian pieces from the 18th dynasty; they are characterized by a high conical stand with an incense bowl above it. The bowl of the thymiaterion from Aniba (Fig. 13, no. 2) is loose, the one of the example depicted on the trunk from the Tomb of Tutanchamun seems to have been fixed to the stand.

The first thymiaterion with drooping petals is the one from Palaepaphos on Cyprus (Fig. 12, no. 38) with a small shallow incense bowl over a conical stand with two drooping petal-capitals.

Possible drooping petal-capitals on the columns of the temples of Tyre and Jerusalem belong to the 10th century B.C. Perhaps shortly afterwards, during the 10th - 9th century B.C., the drooping petals appear on the clay thymiateria from Megiddo (Fig. 11). Because of this relatively short time span in which the first examples of drooping petals appear on thymiateria as well as in architecture it remains unclear, in which medium the motif of the drooping petals originated.

Already in the 9th century B.C. there are examples of the rosette bowls, which, however, originally could have existed independently and were only later added to the thymiateria.

The motif of the "woman in the window" (Fig. 14) as a further example for the use of drooping petals in architecture is widely spread during the 8th century B.C.[11] Likewise to the 8th century B.C. dates the thymiaterion from Toprak-Kale (no. 1), which is, however, unique in its form. The clay thymiaterion from Tell Kazel in Syria with its drooping petals decorating the incense bowl and the comparable pieces mentioned by E. Gubel (1995, 120-121) also date to this time. Furthermore, the contemporary ivory thymiateria (nos. 33-35) from the necropolis of Salamis are first examples of the form with volutes and cylindrical socket, which becomes so popular later on. They must have had predecessors in metal (Raubitschek 1973, 703). The ivory thymiateria from Salamis have three drooping petal-capitals. To the end of the 8th centu-

[11] It remains to consider whether the balustrade columns imitated columns with drooping petals, which were placed in front of the temples.

ry B.C. dates the Sardinian thymiaterion from S. Vero Milis (no. 80) with likewise three drooping petal-capitals, volutes and a cylindrical socket. Also the next known thymiaterion from the turn of the 8th to the 7th century B.C. has three drooping petal-capitals. On the thymiaterion from Tadasuni (no. 81), dating to the same period, only one drooping petal-capital is preserved, so that the original number of petals remains uncertain. It is possible that originally the thymiateria had three drooping petal-capitals and only later the number of capitals lost its importance and the decorative intention alone was sufficiently served with less drooping petal-capitals. Further finds of rosette bowls and the Karatepe-relief sculptures, on which a thymiaterion with only one drooping petal-capital is depicted as well as drooping petals as decoration on its supporting columns, may be dated to the same period (turn of the 8th to the 7th century B.C.).

Finds of thymiateria with a conical stand, one drooping petal-capital and a fixed incense bowl are known from the Iberian Peninsula (Cerro del Peñón, Fig. 5, no. 94, Cástulo, Fig. 9, no. 90) from the 7th century B.C. onwards. At the same time the find number of thymiateria with volutes and cylindrical socket (Fig. 4) reaches a peak. At least 27 of the 29 pieces on Samos are of this type (11 with volutes, 11 with cylindrical sockets, 4 with both and 1 of which only the petals remain). The similarities in form suggest that they were all of identical shape, with volutes *and* cylindrical socket. However, no more favoured number of drooping petal-capitals can be observed at this time. Thymiateria with snakehead volutes and cylindrical socket but without drooping petal-capital from the 7th century B.C. are found on Malta (Ghain Qajjet, no. 71) and Sardinia (Bithia, no. 78). Finally the piece from Northern Syria (no. 8) with two drooping petal-capitals and the one from Southern Portugal (no. 86) with only one, also date to this time.

The relief sculptures of Assurbanipal witness the use of thymiateria with two drooping petal-capitals in Assyria during the 7th century B.C. as well as furniture decoration in the form of drooping petals.

Around the turn of the 7th to the 6th century B.C. we have thymiateria with a fixed incense bowl, one drooping petal-capital and a conical stand from Safara (no. 82) and Tamassos (no. 21). Likewise, thymiateria with volutes, two drooping petal-capitals, and a cylindrical socket are known, e.g. the piece in the Museo Gregoriano Etrusco (no. 75) and the ones from Amathus (no. 24) and Angolemi (no. 26) on Cyprus. The scarab from Tharros on Sardinia dating to this time shows a thymiaterion with only one drooping petal-capital.

The form of the thymiaterion begins to vary strongly during the 6th century B.C. Of the form with volutes and cylindrical socket six examples are known: the thymiaterion from Los Villares de Andújar (no. 84)

with three drooping petal-capitals, the one from Amathus (no. 25) without one and the pieces of unknown origin from the antiquities market Basel (no. 96) and in the Fitzwilliam Museum (no. 97) as well as the two examples from the king's necropolis of Sidon (nos. 3-4) with two drooping petal-capitals. The two latter thymiateria are placed on clumsy tripods. One may add nine thymiateria from Cyprus (nos. 10-18) with volutes and cylindrical socket. Of these two have three drooping petal-capitals (nos. 10-11), five show two (nos. 12-16) and two have only one (nos. 17-18).

Special forms of the thymiaterion are found in the 6th century B.C. with the two Iberian pieces with two incense bowls from the necropolis of La Joya (no. 91 with three drooping petal-capitals) and from Ibiza (no. 92), the example from Villagarcía de la Torre (Fig. 7, no. 89) with three drooping petal-capitals, fixed rosette bowl, Hathor figures instead of volutes and a conical stand, and the clay and limestone thymiateria from Meniko.

The bronze jar from the necropolis of La Joya has drooping petals as a decorative element and the clay model of a temple from Idalion on Cyprus witnesses the use of drooping petal-capitals in architecture in the 6th century B.C.

The thymiaterion from Albacete (Fig. 8, no. 87), dated to the turn of the 6th to the 5th century B.C., is also a special form showing the figure of a woman underneath the drooping petal-capital and a fixed incense bowl. The thymiaterion from Tell es-Samak, likewise dating to this time, is in the tradition of limestone thymiateria with flat incense bowl on a conical stand, however lacking the drooping petals.

From the 5th century B.C. one further thymiaterion with fixed incense bowl, one drooping petal-capital and conical stand is known, namely the one from Shechem (no. 9). Sardinian scarabs from Ibiza show thymiateria with three drooping petal-capitals during this time.

The youngest dated bronze thymiaterion from Alhonoz (no. 83) is again of the form with cylindrical socket and two drooping petal-capitals. Another contemporary example with three of those is found on a scarab from Ibiza. The coins of Datames of Tarsos from the 4th century B.C. show thymiateria with one drooping petal-capital and two knobs underneath.

Still in the 3rd century B.C., the clay and limestone thymiateria from Malta have drooping petals, even if only painted ones. Likewise, the depictions on the stelae from Lilibaeum witness a further existence of this form. The painted thymiateria on the walls of the Tomb from Marisa are of a similar form, but knobs substitute the drooping petals. The Roman bronze and marble candelabra show a changed form with reminiscences of the thymiateria with drooping petal-capitals.

A certain trend in the development can be observed among the dated thymiateria, although the basis of some of the dates remains questionable. Certainly there were thymiateria on high conical stands before they were decorated with drooping petals, as the examples from Egypt demonstrate. The first known example with drooping petals on a conical stand is the thymiaterion from Palaepaphos on Cyprus (Fig. 12, no. 38). Important for the development of drooping petal-decoration seems the Phoenician-Palestine region, where the capitals of the temples of Tyre and Jerusalem, the petal-decorated balustrades of the "Women in the Window" (Fig. 14) and the clay thymiateria from Megiddo (Fig. 11) give early examples for a decoration with drooping petals.

Apart from the thymiaterion from Palaepaphos (Fig. 12, no. 38) and the early clay thymiateria, the first known examples in bronze have a loose incense bowl placed over volutes and a cylindrical socket. It is only in the 7th century B.C. that the next examples with fixed incense bowl and conical stand appear on the Iberian Peninsula. Considering the different material of the pieces from Megiddo (Fig. 11) and the early thymiateria from the Iberian Peninsula there is no need for a direct relationship. It is however possible that the Iberian pieces imitate clay models.

Of the thymiateria of which the form can be reconstructed, 56 pieces belong to the group with (volutes and) cylindrical socket (Fig. 4) and 16 have one or two fixed incense bowls and a conical stand (Fig. 5; including the thymiaterion from Aniba with a loose incense bowl, Fig. 13).

The chronological distribution of the two groups is comparable; there are, however, regional differences. On Samos none of the 15 pieces of which the volutes can be reconstructed shows a fixed incense bowl. Of the 29 thymiateria from Cyprus, 22 have volutes and four a fixed bowl. The situation is different on the Iberian Peninsula: only two out of 13 thymiateria can be recognized as having volutes, whereas seven pieces have a fixed incense bowl.

Noticeable is furthermore an increase of differing forms during the 6th century B.C. The question is whether there was a change in the meaning of the use of the thymiateria or whether this phenomenon is simply due to an adoption of the original form in the local repertoires. An increase of special forms is especially observed on the Iberian Peninsula.

The last trace of drooping petals in architecture comes from the 6th century B.C. with the temple model from Idalion on Cyprus. The drooping petal decoration therefore lasted longer on the thymiateria than on columns.

Find contexts of the thymiateria

When looking at the find contexts of the thymiateria, it catches the eye

that they vary according to the different regions. Of those examples where the context is known, 26 come from tombs. Of these 26 pieces, 13 are from Cyprus, four from the Iberian Peninsula and 3 from Etruria, 1 from Sardinia (necropolis), two from Phoenicia, one from Palestine, one from Malta and one from Egypt. On Cyprus almost all thymiateria - at least those of which the context is known - are from tombs, with the exception of the piece from the palace of Vouni (no. 30). On the Iberian Peninsula the contexts vary, only about half of the thymiateria come from tombs. Of the other regions not enough examples are known to allow for general conclusions on the context.

It seems clear that thymiateria were often placed in tombs. When considering the statement by H. Matthäus (1992, 223), that the burial custom in Phoenicia and Northern Syria did not include the dedication of metals to the dead during the 8th and 7th centuries B.C., one should even account for a chronological gap; consequently, the number of thymiateria from this period could even have been considerably higher. The thymiateria placed in tombs must not necessarily have played a role in the burial ritual itself. They might also have been placed there as a piece of furniture for the afterlife. So at least the thymiateria found in the West may be regarded as status symbols of an upper class maintaining contacts with Oriental merchants, as suggested by H. Matthäus (1992, 228-229).

32 thymiateria were found in sanctuaries. Of these, 29 examples are from the Heraion on Samos and the remaining three from Assyria, Etruria and Greece. Even if a large number of thymiateria were found in sanctuaries, this number is heavily distorted by the pieces from Samos, where the Heraion was a focal point of attention for travellers and merchants from the entire Mediterranean. The examples from Samos are most probably not local products but dedications imported from the different regions.

Only few thymiateria have been found in living quarters. The thymiaterion from the palace in Vouni on Cyprus (No. 30) was found in the filling material below the floor of room 132 (Gjerstad 1937, 260), it can therefore not be decided with certainty where this piece was used before it was buried in the fill. From the Iberian Peninsula two finds of thymiateria in urban quarters are known. The thymiaterion from Alhonoz (no. 83) comes from a settlement stratum of the 5th - 4th centuries B.C. (Lopez Palomo 1981b, 92-95). The thymiaterion from a house in Albacete dates about one century later (Fig. 8, no. 87; Olmos/Fernández Miranda 1987, 219). Finally the clay thymiateria from Ekron and Megiddo (Fig. 11) were found in living quarters. The six thymiateria from Ekron were mainly found in the so-called "elite-zone" of the city (Gitin 1993, 254), the thymiateria from Megiddo in a layer of ashes, sherds and earth in a living room (Schumacher 1908, 126).

Thymiateria with drooping petals are a popular motif on scarabs.[12] Due to the small scale on the depictions, it cannot always be decided with certainty, whether drooping petals are actually shown or rather a thick knob at the place where a drooping petal capital was meant to be. As no finds of thymiateria with knobs are known, and because I assume that the knobs represent a simplification of drooping petals on small-scale depictions, no further distinction is made here between knobs and drooping petal capitals. All of these depictions belong to the cultic realm. The favourite motif is a bearded god seated on a throne, in front of which a thymiaterion is in use.[13] The motif of a seated god with thymiaterion is likewise known for the goddess Isis.[14] On Neo-Babylonian and Persian cylinder seals a thymiaterion between two Scorpio-figures is a common motif (Wiegand 1912, 22, 31).

Coins show thymiateria in a ritual context as well. Phoenician coins of Datames of Tarsos from the 4th century B.C., show the god Baal with a thymiaterion on the front, the back shows a further thymiaterion situated between Datames and Ana (Hill 1964b, 168 pl. 29,14-15). A burning thymiaterion between two Osiris-Canopic jars is depicted on the back of Alexandrine coins of Antoninus Pius (Poole 1892, 134 pl. 18,1132-1133). Cypriote coins of the second half of the 2nd century A.D. show Aphrodite of Paphos using a thymiaterion.[15]

The situation is similar with depictions on stelae from funerary contexts and the cultic-funerary contexts of the Tophet. Three stelae from Lilibaeum and two from Carthage depict women in Greek dress standing in an adoration gesture in front of a thymiaterion.[16] In all cases a Tanit-symbol appears above the thymiaterion, which led W. Culican (1980, 100) to conclude, that the presence of the Phoenician goddess was indicated. An aedicula-shaped stela from Nora on Sardinia shows a thymiaterion with three drooping petal-capitals. Another stela from

[12] Columns in the form of thymiateria are also known from scarabs, e.g. on an example from Tharros depicting a figure seated on a throne in an aedicula with thymiateria-columns (Moscati 1988, 516).

[13] Examples have been found in Tharros (Furtwängler 1900, pl. 7,12), on Ibiza (Gubel 1987, pl. 7,16-17) and on a scarab of unknown origin published by A. Furtwängler (1900, pl. 15,4). Variations of this motif with a beardless god are also known: from Phoenicia (Gubel 1987, pl. 4,7) and on a piece presently in the Staatliche Museen Kassel, Schloß Wilhelmshöhe (Furtwängler 1900, pl. 15,2)

[14] On a scarab from Tharros (Moscati 1988, 398). A scarab with Isis nursing Horus with a thymiaterion standing next to them is known from Ibiza (Moscati 1988, 403).

[15] Hill 1964a, 43 pl. 8,7. Earlier ones from around 385 B.C. depict her temple adorned with thymiateria, Hill 1964a, 43 pls. 17,4-6, 8-10.

[16] Lilibaeum: Bisi 1968, 100-101. Carthage: Perrot/Chipiez 1985, 134.

Nora is decorated with a bottle idol in an aedicula with drooping petal-columns (Patroni 1904, 234-235 pl. 25). Finally, stelae with a motif related to the "woman in the window", but showing only the window and lacking the woman, are known from Cyprus (Raubitschek 1973, 703).
The situation is different with depictions of thymiateria on monumental relief sculpture. Here, the thymiateria are mostly shown in connection with a ruler. Examples for this are the relief of Salmanassar erecting his statue at Lake Van (ca. 860 B.C.; Barnett 1959, pl. 150b), the relief from Karatepe with the banquet of Asitavanda (ca. 700 B.C.; Frankfort 1954, 186-187) and the relief of the Assyrian ruler Assurbanipal (668 - ca. 625 B.C.) also attending a banquet. E. Gubel (1989, 47) points to R.D. Barnett, who recognized the Syro-Phoenician ritual of Marzeah in the latter banquet scene (Barnett 1976, 56-58). Another relief of Assurbanipal shows him pouring libations with a thymiaterion nearby, so here we find again a thymiaterion depicted in a ritual context (Schneider-Herrmann 1941, 3). A thymiaterion in a sacrificial context is also known from a relief of the ruler Assurnazirpal (ca. 870 B.C.; Wiegand 1912, 20). A marble relief from Djamdjine shows a depiction already familiar from the coins: a seated god with a thymiaterion, here in the company of a sphinx (Gubel 1987, pl. 4,5). From Adloun a fragmentary relief is known depicting a thymiaterion next to an Egyptian head (Perrot/Chipiez 1885, 133).
Finally there are the painted golden thymiateria from Tomb II in Tell Sandahannah near Marisal in Southern Palestine, dating to shortly before 188 B.C. (Albright 1942, 18-27). These match the finds of thymiateria in funeral contexts.

Thymiateria in the written tradition

Probably the most explicit report on incense burning customs in relation to thymiateria is found in the bible. However, the incense is not always burned on thymiateria with drooping petals. Three different vessels for burning incense are mentioned. In 2 Chronicles 26,19 Uzziah holds an incense barrel; similar incense barrels are also seen by Ezekiel (8,10-11) when he is being taken to the temple of Jerusalem in a vision. The description of a horned incense altar and instructions for the construction of one are given in Exodus 30,1-9 and 37,25-29; likewise an incense altar is mentioned to stand in the Holy of Holiest in Hebrews 9,4. Finally, an incense pan or incense dish is used in Leviticus 10,1 by Nadab and Abihu, the sons of Aaron. It is probable that this describes the incense bowl of a thymiaterion with drooping petals, as may also have been the case with the incense altars in Leviticus 26,30. Of unknown form is the censer in the Revelation 8,3-4.

In the bible incense is sacrificed to very different gods. The process was a ritual in the cult of the biblical god and is described in Exodus 30, 1-9, 34-38 and 37, 25-29. Also the presence of an incense barrel in the Holy of Holiest points to a regular use of incense in the cult, as well as the use of an incense burner by an angel in the Revelation 8,3-4. But the foreign gods were often addressed by incense offerings as well. So in Jeremiah 44,17-19 and 25 the Queen of Heavens or Goddess of Heavens, Ishtar or Astarte, was honoured with incense. Baal was worshipped with this ritual in Jeremiah 11,13. 17 and 32,29 as well as in Hosea 2,15. But there is also mention of sun, moon and planets (2 Kings 23,5) or "all the host of heaven" (2 Kings 23,5) receiving incense offerings. Not only gods could be addressed with incense, but mortals as well: in Daniel 2,46 King Nebuchadnezzar ordered to burn incense for Daniel and in Ezekiel 23, 40-41 the burning of incense for the welcome of guests is described.

Obviously there were strict rules for the use of incense in a religious context. In 2 Chronicles 26,16-19 King Uzziah dares to burn incenses himself - an act restricted to priests - and was punished with leprosy. Similarly, the incense, which was produced for ritual use, was not allowed to be taken for other practises (Exodus 30,37-38). Consequently, it was only allowed to burn what was especially made for ritual use. Nadab and Abihu were punished with death for burning the wrong incense in a ritual. A 'recipe' for incense is given in Exodus 30,34-38: gum resin, aromatic tree bark, galbanum and clear frankincense were mixed in equal proportions and powdered.[17]

Often incense was burned in high places, so on the roofs (Jeremiah 19,13 and 32,19) or on "heights" (2 Kings 23, 5 and Leviticus 26, 30). In some cases there seems to be a connection between the burning of incense and libations. The two rituals are mentioned together in Jeremiah 19,13. 32,19 as well as in 44,18, 19 and 25.

Greek sources clearly connect the burning of incense with the more mundane practise of the symposium. Already in the 6th century B.C. Xenophanes (fragment 1, Diehl, line 7) describes the burning of frankincense during the symposion. Plato (*Politeia* II.373 a) mentions thymiateria as luxury goods in a Greek household when he puts them in a context with furniture, sweets and prostitutes. For Athenaios (*Deipno-*

[17] Unfortunately only the thymiaterion from Shechem has so far been tested for incense material. In this thymiaterion asphalt has been found. The trade with frankincense was mainly in Phoenician and Punic hands in antiquity (Müller 1978, 731). Furthermore, Cassia and saffron were used as incense by the Phoenicians (Müller 1978). The Phoenicians also took great parts in the trade with amber (Rottländer 1978/79, 98), which was not only used for jewellery but also as incense.

sophistae 15.665 c), who quotes Plato, thymiateria belong to the furnishings of a symposion together with wine, flute players and perfume.

Columns with drooping petal-capitals

The role and meaning of columns with drooping petal-capitals is hard to grasp. The form of the columns, coming from the Phoenician culture (columns of the Herakles/Melqart temple), found its way into the Jewish culture (Jachin and Boaz in front of the Temple of Jerusalem). The columns of the Herakles/Melqart Temple described by Herodotus (II.44) were said to have been made of two different materials, one of emerald, which was shining bright at night, and the other one of gold. H.G. Niemeyer (1970, 101) suggests to interpret this as two different uses of these objects: either for the sacrifice of incense or as braziers. With this interpretation it seems likely to interpret the columns of smoke or fire, which stood before the Ark as thymiateria as well (Niemeyer 1970, 101).

W. Culican (1980, 101) draws a parallel between columns and thymiateria by saying that as the god inhabits a thymiaterion in use (explained by the Tanit-symbols on Phoenician stela) also the column is seen as a dwelling place for the god. This is known from the Egyptian culture in the case of the Djed-pillar, which does not only support Osiris-Harpokrates, but also functions as his substitute and altar. The obvious similarity in form of the Djed-pillar with its parallel bars and the thymiateria with the drooping petal-capitals had already been noted by W.F. Albright (1942, 25).

A further similarity between columns and thymiateria is found in their appearance in pairs. This is not surprising in the case of columns flanking the entrance of a temple, but the thymiateria sometimes come in pairs as well, so in Megiddo, in Tomb IV in Tamassos or painted in Tomb II in the necropolis of Marisa. I. Benzinger (1974, 322) takes this thought so far as to interpret it as a symbol for the duality of nature.

Finally there is the motif of the "woman in the window" (Fig. 14) showing architecture decorated with drooping petals. Obviously it is a temple of Astarte being depicted with this motif (Barnett 1957, 146; Gehrig/Niemeyer 1990, 136). Ch. Briese and E. Schlüter (*apud* Gehrig/Niemeyer 1990, 136) point in this connection to the Cypriote legend reported by Plutarch of a beautiful woman who was turned to stone by Aphrodite for being unapproachable. These two authors furthermore interpret the "woman in the window" as a symbol for the temple prostitution in the sanctuaries of Astarte. The balustrade columns with drooping petals seem to characterize the temples of Astarte, therefore to be a necessary decoration of its architecture. Why the motif of the

"woman in the window" was often used for the decoration of furniture remains unclear however (Mallowan 1966, 522; Gubel 1989, 47).

Thymiateria and the gods associated with them

In the bible the thymiateria and the custom of burning incense are connected with a variety of gods: besides with the Christian God mainly with Baal and Astarte (see above). In fact, thymiateria find use in the cults of most different gods.

On coins thymiateria with drooping petals are often depicted with a bearded god, who is identified in some cases as Baal (Furtwängler 1900, pl. 15,5; Hill 1964a, 168). Special attention should be made in this connection to Baal Hammon, the Lord of the Braziers, since here the link with thymiateria is obvious. Several thymiateria with drooping petals have indeed been found in his sanctuary in Meniko on Cyprus.[18]

The motif of the "woman in the window" (Fig. 14) places the drooping petals in context with Astarte or Aphrodite. The depictions of the temple of Aphrodite in Paphos as known from coins of the second half of the 2nd century A.D. (Hill 1964a, pls. 17,4-6, 8-10) with the huge thymiateria also witness a connection between this goddess and the drooping petal-decoration. K. Wiegand (1912, 29) points to coins from the 4th century B.C. naming her cult as that of Aphrodite Thymiadzousa. The thymiaterion from Villagarcía de la Torre (Fig. 7, no. 89), the volutes of which are replaced by Hathor-figures, also supports this evidence. Also the Ludovisi Throne with a depiction of a thymiaterion in the cult of Aphrodite belongs to this context (Giuliano 1979, 54). A confusion of Astarte and Hathor took place especially on Cyprus, where the two cults were fused after the conquest of the island by Pharaoh Amasis in the year 570 B.C. (de la Bandera Romero/Ferrer Albelda 1994a, 53). M.L. de la Bandera Romero and E. Ferrer Albelda (1994a, 51) interpret the form of the thymiateria as an opening blossom and therefore as a symbol for Astarte.

The columns with drooping petal-decoration in front of the Melqart Temple in Tyre are the only known examples for drooping petals in the cult of this god.[19]

On Punic stelae the thymiateria are depicted with a Tanit-symbol (Bisi 1968, 100-101). This indicates an importance of these objects in the cult

[18] Moscati 1988, 161-162. W. Culican (1968, 81) also draws a connection between the braziers of Baal Hammon and the thymiateria with drooping petals.

[19] M. Ohnefalsch-Richter (1893, 182) and K. Wiegand (1912, 29) mention thymiateria in a context with Resef-Apollo. This interpretation was however abandoned in later studies.

of Tanit. W. Culican (1980, 100) interprets this depiction as a symbol for the presence of the goddess during the incense offering.
This broad use of thymiateria in sacrificial contexts raises the question whether the thymiateria had a ritual function at all or were rather a kind of furniture providing a solemn atmosphere. It is also possible that in some cults, especially in the cult of Aphrodite, the thymiateria had a special meaning and use, while in other cults they only served as decorative furniture.

Thymiateria and Phoenician trade

The distribution of thymiateria with drooping petals is clearly connected with the Phoenician expansion. As H. Matthäus (1992, 218-220) pointed out, the distribution of the thymiateria in the Mediterranean is similar to that of other Phoenician products. Phoenician metal jars, e.g., are found in Italy, on Sardinia, in Southern Spain, Carthage and in Western Sicily; a further concentration can be noted on Cyprus. Of these jars the piece from La Joya, Huelva, with its drooping petal-decoration around the neck is especially close to the thymiateria. Also a parallel distribution pattern with Phoenician pottery can be noted, which spreads from the Levant coast to Cyprus, Malta, Western Sicily, Northern Africa, Spain, the Dodecanese and Crete. H. Matthäus (1992, 220), however, regards the distribution of pottery to mirror the Phoenician settlement activity in contrast to the distribution of the thymiateria, which rather marks the area of influence or contact zones of Phoenician merchants. He sees two different trade routes in the distribution of Phoenician exports: one which leads via Cyprus as first stop to the Southern coast of Asia Minor, to the Dodecanese, through the Aegean via Samos, Crete and the Greek mainland towards Malta and Sicily and finally to Italy and Sardinia and ending in Spain, and a second one reaching via Cyprus to the Phoenician cities in Northern Africa and from there to the Iberian Peninsula (Matthäus 1992, 220-221).
It is to note that the thymiateria from the Phoenician spheres of influence are often found in clearly non-Phoenician contexts. G. Tore (1985, 68), e.g., stresses, that the thymiateria from Sardinia come from Nuraghic contexts with the exception of the piece from Bithia. Likewise, the Tomb of Isis in Vulci is a local burial[20] and the pottery found in connection with the thymiaterion from Cerro del Peñón is also local (Niemeyer/Schubart 1965, 83).

[20] F. Bubenheimer, personal communication, publication forthcoming.

Clusters of thymiateria can - with the exception of the Phoenician cities on the Levant Coast – be noticed in areas which were focal points of Phoenician attention due to richness of metal: Cyprus (iron and copper), Etruria (iron and copper), Sardinia (iron, silver, lead and copper) as well as the Iberian Peninsula (silver, gold, copper and mercury; Fig. 2). Considering the non-Phoenician contexts in which the thymiateria have been found in these areas it is probable that the thymiateria are witnesses for a Phoenician presence oriented towards trade, which - due to a lack of Phoenician trading posts or even colonies - is often hard to grasp.[21]

The question of what role the thymiateria played in Phoenician trade or Phoenician contact with trading partners remains unsolved. Did the Phoenicians bring these objects to create a familiar surrounding far away from home and practise their own rituals? Were the thymiateria highly regarded by the locals as luxury goods with the character of status symbols for the contact with Phoenicians? Did the use of thymiateria by the locals include the practise of Phoenician cults? If, as is known in some cases, the local craftsmen produced Phoenician-style thymiateria, was this an interpretation of Phoenician objects or was it to cover a local demand based on rituals taken over from the Phoenicians? It is most probable that all of these possibilities have to be considered.

For Cyprus I.K. Raubitschek (1973, 707) suggested a primary production by Phoenician craftsmen on the island giving impulses to the local art.[22] M.L. de la Bandera Romero and E. Ferrer Albelda (1994a, 55) gave two different interpretations instead: Either Orientalising rituals practised by Oriental merchants on the island or, as already mentioned, the use of Orientalising objects as status symbols for the upper class after contact with Oriental merchants. The latter possibility is also suggested by H. Matthäus (1992, 228-229) for Etruria and the Iberian Peninsula. M. Belén (1986, 265) even denies a local production on the Iberian Peninsula and addresses all thymiateria found there as imports. M.L. de la Bandera Romero and E. Ferrer Albelda (1994b, 44-60; de la Bandera Romero 1994, 415-439) presented a very thorough examination of this problem on the Iberian Peninsula. They separated three different steps in the distribution patterns of thymiateria on the Peninsula (Fig. 3). The first step includes thymiateria of the simple form with conical stand, fixed incense bowl and one drooping petal-capital (Type I) as well as thymiateria with a higher stand, more drooping petal-capitals and a disk on which the incense could be placed (Type II a). These two forms are mainly restricted to the coastal zone, where a mixed

[21] On aspects of Phoenician trade see Niemeyer 1993; Niemeyer 1994.

[22] V. Tatton-Brown (1988, 133) comes more or less to the same conclusion.

population of locals and Phoenician immigrants can be expected. Therefore these pieces are probably Oriental imports rather than local products. The second step of distribution includes the thymiateria with volutes on which the incense bowl was placed (Type II b) and the form with zoomorphic figures placed on the rim of the incense bowl (Type III). These thymiateria concentrate in the Tartessian region around Huelva, the Bajo Guadalquivir, Corbones and Genil and are addressed as local Iberian products inspired by Phoenician forms. De la Bandera Romero and Ferrer Albelda date this phase of distribution to the 7th century B.C. The third step finally includes the late thymiateria of Type III and those examples decorated with female figures (Type IV). These types are found in the Tartessian hinterland and on Ibiza. With this step the final phase of integration of the thymiateria with drooping petals into the Iberian art was reached, the local interpretation of the thymiateria and therefore adoption into the local art. De la Bandera Romero and Ferrer Albelda date this phase to the first half of the 6th century B.C.
Whichever part the thymiateria might have played in the contact of Phoenician merchants with the local population, whether they were solemnly regarded as status symbols or were bound to a reception of Phoenician rituals, the thymiateria with drooping petals have found their way to almost all parts of the Mediterranean.

Summary

Thymiateria with drooping petals were common in the Mediterranean from Geometric to Roman times, while a peak can be observed in the 7th and 6th century B.C. A typological line cannot be given for these objects; merely a division into two groups is proposed: the thymiateria with volutes and cylindrical socket for placement on a stand and the pieces with fixed incense bowl and conical stand. Only on the Iberian Peninsula a fusion of the original form with local taste can be observed. The use of the thymiateria with drooping petals is hard to grasp. Certain is a use in different cults, mainly in those of Aphrodite/Astarte and Baal Hammon. Furthermore, the thymiateria found use in the cults of other gods as well. They often have been included in burials, even if it does not become clear whether they played an active role in the burial rituals or were in accordance with these rituals added to the tomb as objects from the world of the living. Finally thymiateria with drooping petals were - even if only on rare occasions - found in living quarters and the ancient authors tell of a use in luxurious private surroundings.
There is an obvious connection between the distribution of the thymiateria and Phoenician trade or the Phoenician interest in metal ores in the Mediterranean. In this context the thymiateria mark by their appearance

in non-Phoenician contexts the Phoenician influence on the local population, which preceded the trade or accompanied it.

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Appendix: List of thymiateria in geographical order of their provenances

NO.	*Place/Name*	*Upper Part*	*Drooping Petal-Capitels*	*Stand*	*Irregularities*	*Find Context*	*Dating*
ASSYRIA							
1	Toprak-Kale	bowl without rim	5	long stand on tripod with bull's hoofs and mystic animals	unusual form, five drooping petal-capitels	Haldis-Temple	Inscription: „Candelabrum of Russa I..., 732(?)-714 B.C.
EGYPT							
2	Aniba	loose bowl with small handles	0	conical stand	stand decorated with broken metal work	Tomb 19, Necropolis S	18th dynasty
PHOENICIA							
3	Sidon	volutes	2	high stand on crude tripod	tripod	Tomb of Tabnit	end of 6th cent. B.C.
4	Sidon	volutes	2	high stand on crude tripod	tripod	Tomb of Tabnit	end of 6th cent. B.C.
5	Sidon	volutes	2	high stand on crude tripod	tripod		
6	Collection de Clerq 481	deep bowl with partly open cover	1	conical stand		unknown	
7	Walters Art Gallery, Baltimore	bowl with flat rim	1	conical stand		unknown	
8	Northern Syria	volutes	2	cylindrical socket		unknown	7th century B. C.
PALESTINE							
9	Shechem	bowl with partly open cover	1	conical stand	chain between bowl and cover, asphalt in bowl	tomb, not local	5th century B. C.
CYPRUS							
10	Cesnola 1270/ MMA75.41.5640	volutes with supporting rods	3	cylindrical socket	supporting rods	unknown	6th century B. C. (Myres)
11	Cesnola 1271/ MMA74.51.5641	volutes with supporting rods	3	cylindrical socket	supporting rods	unknown	6th century B. C. (Myres)
12	Cesnola 1272	volutes	2	cylindrical socket		unknown	6th century B. C. (Myres)
13	Cesnola 1273	volutes	2	cylindrical socket		unknown	6th century B. C. (Myres)
14	Cesnola 1274	volutes	2	cylindrical socket		unknown	6th century B. C. (Myres)
15	Cesnola 1275	volutes	2	cylindrical socket		unknown	6th century B. C. (Myres)
16	Cesnola 1276	volutes	2	cylindrical socket		unknown	6th century B. C. (Myres)
17	Cesnola 1277	volutes	1	long cylindrical socket		unknown	6th century B. C. (Myres)
18	Cesnola 1278	volutes	1	long cylindrical socket		unknown	6th century B. C. (Myres)
19	Tamassos, King's Tomb IV	bowl in the form of a half-covered vessel	1	conical stand		tomb	
20	Tamassos, King's Tomb IV	bowl in the form of a half-covered vessel	1	conical stand		tomb	
21	Tamassos, King's Tomb IX	?	?	?		tomb	Cypro-Archaic
22	Curium, BM 1896/2-1/303	volutes	2	cylindrical socket		Tomb 73	
23	Curium, Louvre AM378	volutes	0	cylindrical socket		Tomb 15	
24	Amathus	volutes	2	cylindrical socket		Tomb 3	
25	Amathus, BM 1894/11-1/237	volutes	0	cylindrical socket	remains of wood in the socket	Tomb 84	6th century B. C.
26	Angolemi	volutes	2	cylindrical socket		unknown	Cypro-Archaic
27	Marion-Arsinoe	volutes	2	cylindrical socket		Tomb 139, Necropolis II	

28	Marion-Arsinoe	volutes	2	cylindrical socket		Tomb 96, Necropolis II	
29	Louvre, AM 918	volutes	2	cylindrical socket		unknown	
30	Vouni	bowl (fragmentary)	0	conical stand		palace, in filling material under floor of room 132	
31	Inv. Nr. 1967/III-4/1	volutes	2	cylindrical socket		unknown	
32	Toledo, Ohio	volutes	3	cylindrical socket	floral ornament	unknown	
33	Salamis 333	volutes without supporting ring	3	cylindrical socket	material: ivory	King's Tomb 79, in Greek custom with Oriental luxury goods	turn 8th/7th cent. B. C. (Matthäus), 8th century B. C. (Raubitschek)
34	Salamis 117+154	?	2	cylindrical socket	material: ivory	Tomb 79	made ca. 725 B. C., burial ca. 700 B. C.
35	Salamis 519	?	at least 1	?	material: ivory	Tomb 79	made ca. 725 B. C., burial ca. 700 B. C.
36	Florence	volutes with disk above	3	cylindrical socket	flat disk	unknown	
37	Idalion, today in Cracow	volutes, spaces between volutes filled	2	cylindrical socket	filling between volutes (torchholder?)	unknown	
38	Palaepaphos	small shallow bowl with flat rim	2	conical stand	petals wide open	Tomb 132	2nd half of 11th century B. C.
RHODES							
39	671 GD	?	at least 2	cylindrical socket		unknown	
40	672 GD	volutes	?	?		unknown	
41	673	volutes in form of a blossom with polygonal supporting ring	?	?	volutes as blossom	unknown	
SAMOS							
42	B 291	volutes	?	?	supporting rods	layer of ashes, Rhoikos-altar	7th century B. C.
43	B 468	volutes	2	cylindrical socket	supporting rods	S 42	7th century B. C.
44	B 479	volutes	2	cylindrical socket		among offerings	7th century B. C.
45	B 567	volutes	?	cylindrical socket		south-eastern bath	7th century B. C.
46	B 568	?	at least 1	cylindrical socket		south-eastern drum	7th century B. C.
47	B 657	volutes	?	?		Heraion	7th century B. C.
48	BB 749	?	at least 2	cylindrical socket		Heraion	7th century B. C.
49	BB 750	?	2	cylindrical socket		Heraion	7th century B. C.
50	B 900	volutes	?	?		Heraion	7th century B. C.
51	B 1052	volutes	?	?	end of volutes rolled up to form a ring	Heraion	7th century B. C.
52	B 1053	volutes	?	?		Heraion	7th century B. C.
53	B 1059	?	3	?		Heraion	7th century B. C.
54	B 1060	?	at least 1	cylindrical socket		Heraion	7th century B. C.
55	B 1066	volutes	at least 1	?		Heraion	7th century B. C.
56	B 1177	volutes	?	?		N/14 south	7th century B. C.
57	B 1182	volutes without supporting ring	0	cylindrical socket	remains of wire around one volute	N/14 south	7th century B. C.
58	B 1236	?	at least 1	cylindrical socket		Heraion	7th century B. C.
59	B 1305	?	?	cylindrical socket		N 15/1	7th century B. C.
60	B 1327	?	2	cylindrical socket		N 15/2 east	7th century B. C.
61	B 1466	?	3	cylindrical socket		south of Rhoikos-altar near treasury	7th century B. C.
62	B 1467	?	2	cylindrical socket		under stone pavement of altar VII	7th century B. C.
63	B 1598	?	3	cylindrical socket	drooping petals wide open	under cement pavement south of Rhoikos-altar	7th century B. C.
64	B 1610	volutes	?	?		Heraion	7th century B. C.
65	B 1614	?	at least 2	cylindrical socket		Heraion	
66	B 1634	volutes	?	?		Heraion	7th century B. C.
67	B 1643	volutes	at least 1	?		under cement pavement south of Rhoikos-altar	7th century B. C.
68	B 1674	volutes	?	?		Heraion	7th century B. C.
69	B 2420	?	?	?		Heraion	
70	B 2448	?	?	?		Heraion	
MALTA							
71	Ghain Qajjet, near Rabat	volutes end in snake-heads	0	cylindrical socket	snake-heads	tomb	6th century B. C.
GREECE							
72	Athens	?	2	cylindrical socket		acropolis	
73	Olympia	volutes end in snake-heads	?	?	snake-heads	unknown	
ETRURIA							
74	Vulci, BM GR 1850.2-27.39-41	twisted metal strands, probably modern addition	3	cylindrical socket	several parts probably modern addition	Tomb of Isis, Polledrara	625-550 B. C.
75	Cerveteri, Museo Gregoriano Etrusco	volutes	2	cylindrical socket	petals wide open, upper capitel 12, lower capitel 11 petals	tomb	

76	Cerveteri, Frankfurt B 444	volutes	2	cylindrical socket	remains of wood in socket	from chamber-tomb	7th century B. C.
SARDINIA							
77	Santa Vittoria di Serri	?	3	cylindrical socket		sanctuary, near altar	end of 8th/beginning of 7th century B. C.
78	Bithia	volutes end in snake-heads	?	?	snake-heads	necropolis	mid-7th cent. B. C.
79	S. Giusta/Othoca	volutes	2	cylindrical socket		unknown	
80	S. Vero Milis	volutes	3	cylindrical socket		unknown	end of 8th cent. B. C.
81	Tadasuni	?	at least 1	?		unknown	end of 8th/beginning of 7th century B. C.
IBERIAN PENINSULA							
82	Safara	bowl with flat rim	1	short stand, three feet added	cover with bull on pedestal with triangular holes	unknown	7th-6th century B. C.
83	Alhonoz	?	2	cylindrical socket		living quarter, layer II-IV (local Iberian), found together with bronzen Minerva	7th-6th century B. C.
84	Los Villares de Andújar	volutes	3	cylindrical socket		unknown	beginning of 6th century B. C.
85	Los Castellares de Puente Genil	?	at least 1	?		unknown	
86	Southern Portugal	?	1	cylindrical socket		unknown	end of 7th cent. B. C.
87	Albacete	bowl with flat rim	1	?	women with dove below petal-capitels	living quarter	
88	Sevilla (Museum)	volutes	3	cylindrical socket		unknown	9th-6th/5th cent. B. C.
89	Villagarcia de la Torre	Hathor-figures instead of volutes, rosette bowl	3	high conical stand with three lion's paws	Hathor-figures, lion's paws, bowl covered by open plate	tomb	
90	Castulo	bowl with flat rim	1	conical stand	two does and one lioness on rim of bowl	tomb with Oriental goods	1st half 7th century B. C.
91	La Joya, Huelva	two bowls with small flat rim	3	high stand above pyramidal base on lion's paws	two bowls, base	Tomb 17/4	6th century B. C.
92	Ibiza	two bowls	?	?	two bowls	tomb (?)	6th century B. C.
93	National Museum Madrid	?	2	short cylinder on three feet (added at a later point)		unknown	9th-6th/5th cent. B. C.
94	Cerro del Peñón	rosette bowl	1	conical stand		cave	end of 8th cent. B. C.
UNKOWN ORIGIN							
95	Monaco, Collection Loeb	volutes	2	cylindrical socket		unknown	
96	Antiquities Market, Basel	volutes	2	cylindrical socket		unknown	6th century B. C.
97	Cambridge, Fitzwilliam Museum	volutes	2	cylindrical socket		unknown	6th century B. C.
98	Mainz, RGZM	?	3	cylindrical socket		unknown	
99	Oxford, Ashmolean Museum	volutes	2	cylindrical socket		unknown	