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THE TRANSITIONAL PHASE FROM SUBMYCENAEAN TO PROTOGEOMETRIC: DEFINITION AND COMPARATIVE CHRONOLOGY*

The definition of a transitional phase from Submycenaean to Protogeometric is not a recent refinement but was introduced to the scholarly discourse as early as 1939. It was W. Kraiker who used the term (Übergangszeit) for the first time in the first volume of the Kerameikos publication series (KRAIKER – KÜBLER 1939, 140–144). Kraiker assigned the Kerameikos graves PG A, PG B and PG 1 to this phase.¹ The pottery from these graves still form the back bone of the transitional phase and therefore Kraiker's definition has certainly passed the test of time. In the fourth volume of the Kerameikos series, which is devoted to the Protogeometric graves, K. Kübler did not follow Kraiker but classified the earliest graves as Early Protogeometric (Frühstufe) (KÜBLER 1943, 13, 22–23). Nevertheless, Kübler was not arguing against a transitional phase; a term that he himself had used in the first Kerameikos volume (KRAIKER – KÜBLER 1939, 215). In 1952, V. Desborough took up Kraiker's definition and terminology and added some graves to the transitional phase from Submycenaean to Protogeometric that had been published by Kübler in the Kerameikos IV volume (DESBOROUGH 1952, 1–6). Furthermore, Desborough introduced the striking term "wild style" for some of the vessels of the transitional style to describe their experimental character (DESBOROUGH 1952, 4).

C.-G. Styrenius divided the transitional graves of the Kerameikos cemetery in his "Submycenaean Studies", for unconvincing reasons, in two chronological groups, which were labeled Late Submycenaean B and transitional respectively (STYRENIUS 1967, 51–65, 75–76). Styrenius based his argumentation on stylistic analysis but he failed to explain his observations in detail. Therefore, it is hardly possible for the reader to understand his reasons for assigning a certain grave to a certain chronological phase.²

G. Krause did not use the term transitional phase in his study that is committed to a reanalysis of the Early Iron Age cemetery in the Kerameikos. But his phase (*Zeitstufe*) 3 roughly corresponds to the transitional phase from Submycenaean to Protogeometric, as defined by Desborough, and to Styrenius' Late Submycenaean B and transitional phase, if taken together (KRAUSE 1975, 57–66, tab. 20). A transitional phase has also been recognized by I. Lemos in her 2002 study dedicated to "The Protogeometric Aegean" (LEMOS 2002, 9–10). Surprisingly, Lemos assessed some graves which until then had been classified as transitional graves such as Kerameikos PG A and PG 1 for the first time as EPG, without giving sufficient reasons. Moreover, Lemos believed the transitional period and EPG to be "two stages of one phase" (LEMOS

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¹ For the naming of the graves in the Kerameikos cemetery used in this article see RUPPENSTEIN 2007, 1–2.

² Styrenius' Early Submycenaean, Middle Submycenaean and Late Submycenaean A phases are very different from phases (*Stufen*) I–III that have been defined in RUPPENSTEIN 2007. This has not been understood by PA-PADOPOULOS 2008. The phases (*Zeitstufen*) 1, 2a and 2b in G. Krause's work (KRAUSE 1975) are also dissimilar to the phases I–III in RUPPENSTEIN 2007.

2002, 9 n. 59). However, it is not clarified what the principal difference between a stage and a phase is. An explanation would have been necessary because a stage as well as a phase is both characterized by certain duration.

The knowledge of the transitional phase could be broadened in the Kerameikos XVIII volume through the publication of hitherto unknown graves (RUPPENSTEIN 2007, 195–200, 243–245, tab. 40a, 40b). The richly furnished woman's grave SM 146 is certainly the most spectacular of the recently published ones (RUPPENSTEIN 2007, 30–35, fig. 15–17, pl. 35–40. – LAGIA 2007, 277). Pottery of a transitional SM/PG style characterizes phase IV of the Kerameikos and other Athenian cemeteries with single burials according to the chronological system that has been defined in Kerameikos XVIII (RUPPENSTEIN 2007).

In view of the controversy about the Submycenaean period (RUPPENSTEIN 2003. – RUPPENSTEIN 2007, 5–7) it is remarkable that most scholars who have dealt intensively with the Early Iron Age in Attica agree in general lines about the SM/PG transitional phase. The differences between the proposed chronological divisions can be seen in Tab. 1.

Similar to Submycenaean, a transitional phase and a transitional pottery style are, at the moment, only clearly recognizable in Attica. This is not surprising because nowhere else in mainland Greece is there such a wealth and variety of evidence from the beginning of the Early Iron Age. Furthermore, it is neither unusual nor especially problematic that the definition of the transitional phase is based on material from graves because the same is true for the Protogeometric, Early Geometric, Middle Geometric, and Late Geometric periods. Many examples from other regions and periods could easily be added. However, so far nobody has felt the need to call for the abandonment of the terms Protogeometric, Early Geometric, Middle Geometric, or Late Geometric, as has been claimed for the term Submycenaean (RUTTER 1978). Moreover, even for A. Furumark's classification of the Mycenaean pottery which is still fundamental, tomb groups were of highest importance, as he clearly states when comparing the evidence from settlements and tombs: "Incomparably much more complete and decisive is the evidence of sequence given by the position of the material found in tombs" (FURUMARK 1941, 31).⁴

Despite existing difficulties, it is possible to identify pottery in other parts of Greece, which is at least roughly contemporary with the transitional material from Attica. A first attempt was made by Desborough in 1973, who dated the tomb Γ 31 at Mycenae convincingly to the SM/PG transitional period (DESBOROUGH 1973, 94–98, pl. 34d–e, 35). The material from this grave is of crucial importance because it shows stylistic similarities with other Peloponnesian find groups as well as with Attic pottery. Therefore, it can be used to connect Attica with more remote Peloponnesian areas, as for example Elis.⁵ I. Lemos ascribed persuasively some graves in Volos-Nea Ionia,⁶ the Skoubris cemetery at Lefkandi and the famous warrior grave XXVIII in Tiryns (VERDELIS 1963, 10–24) to the transitional phase (LEMOS 2002, 10–13). Settlement layers have been assigned to the SM/PG transitional phase in Kalapodi (FELSCH 1996, XVI. – JACOB-FELSCH 1996, 99–101) and Kynos-Livanates (DAKORONIA 2003, 47).

³ A preliminary report about this grave was published by the excavator B. von Freytag gen. Löringhoff. The grave is called TN 94–2 in this article (VON FREYTAG GEN. LÖRINGHOFF 1995, 647–649, figs. 33–35). This provisional name is also used by LEMOS 2002, 9.

⁴ Therefore, J. Rutter's statement: "...; the fact that the relative chronology of the Greek Bronze Age is otherwise based on settlement ceramics in itself makes use of the term 'Submycenaean' awkward" (RUTTER 1978, 61) is at least inaccurate, as far as Furumark's work is recognized as basic for the relative chronology of the Greek Late Bronze Age.

⁵ The jug from grave Γ 31 at Mycenae (DESBOROUGH 1973, 95 no. 2, pl. 35c) has a similar shape and a comparable organization of the decoration as a jug from Lasteïka in Elis (EDER 2001, 44, 67, pls. 9:1a–d; 12a). Therefore, both vessels should be approximately contemporary.

⁶ The grave 1961/12 in Volos-Nea Ionia (SIPSIE-ESCHBACH 1991, pl. 58:3–5) could already be EPG because of a cup with a wavy line just below the rim. This decoration reminds one of the Attic cups with zigzag band below the lip that make their first appearance in EPG.

The SM/PG transitional phase in Athens is not only of interest for the connoisseur of early Greek pottery but even more for the student of the socio-cultural history of the Early Iron Age because two very significant events can be dated exactly to this period: The introduction of Iron for the manufacture of tools and the beginning of practising cremation as the predominant burial rite. Iron had already been used in the Submycenaean period but only for a few pieces of jewellery, especially for rings (RUPPENSTEIN 2007, 216–217). Iron weapons appear for the first time in the transitional phase. In the Athenian transitional graves swords, daggers, a knife and an arrowhead were found (RUPPENSTEIN 2007, 202-204, 206). Iron spearheads have not been discovered yet but this may be by chance. Though, bronze spearheads were still in use during the SM/PG transitional phase (RUPPENSTEIN 2007, 200-202). In other regions the evidence is not as good as in Attica but the aforementioned warrior grave XXVIII in Tiryns with its two iron daggers8 (VERDELIS 1963, 14–17, fig. 8, pl. 5:4) indicates that the new technology spread at the same time in various parts of the Greek mainland. It is remarkable that the Tiryns warrior was equipped with a bronze spearhead (VERDELIS 1963, 11–12, pl. 5:1). Hence, the situation in Athens and in Tiryns is also comparable in this respect. If the widespread use of iron for the production of tools is taken as defining the Iron Age, then the beginning of the Iron Age in Greece can be dated to the SM/PG transitional phase. In contrast to the introduction of iron technology, the change from inhumation to cremation as the favoured burial practice is only of regional importance for Attica. Other areas, for example the Argolid (HÄGG 1974), did not follow the Attic model and retained the traditional custom of inhumation.

In defining a transitional phase it is necessary to explain why the use of the term 'transitional' is meaningful. An explanation is needed because every pottery style is at every point of its development in transition. This means that traditional and progressive elements always coexist. Therefore, the use of the term transitional phase deserves special circumstances to be significant. Such an unusual situation can be detected in Attica at the very beginning of the Iron Age. There are some vessel types and decoration systems without a predecessor in the Submycenaean phase nor with a successor in the Protogeometric period. Most of the new types can be derived from Cypriot prototypes, as will be shown later. Furthermore, there are some unique vessels, which illustrate the delight of the Athenian potters of this time to experiment. The existence of this group of vessels makes the use of the term transitional phase meaningful in this certain case. It is noteworthy that an extraordinary experimental pottery style was prevalent at the same time when iron replaced bronze as the most important metal and cremation displaced inhumation as the customary burial practice. Probably it was a time of intellectual mobility or even upheaval.

At this point, it may not be out of place to present a short summary of the methods that were used in Kerameikos XVIII (RUPPENSTEIN 2007) to establish a relative chronological sequence of the graves in the Kerameikos and other Athenian cemeteries. In a first step a stylistic analysis of the pottery was conducted with the aim to separate the vessels of every type in stylistic groups. This examination was carried out without considering the context of the pottery because the context does not contribute to the understanding of style. After the definition of the stylistic groups an investigation of the grave contexts followed. The intention of this analysis was to search for regularities in the co-occurrence of stylistic groups of the same and different vessel types. In fact, such regular co-occurrences could be detected in the graves of the Kerameikos and other Athenian cemeteries. There is no indication that these regular

⁷ For the early iron swords that follow typologically the tradition of the bronze Naue II swords see KILIAN-DIRLMEIER 1993, 106–115, 121–126).

⁸ The better preserved of the two iron weapons can be called either a short sword or a long dagger according to individual definition.

⁹ For a more detailed treatment of methodological questions see RUPPENSTEIN 2003 and RUPPENSTEIN 2007, 41–45

co-occurrences of stylistic pottery groups are based on other than chronological reasons. A special preference of age, gender or social groups for certain stylistic ceramic groups could not be recognized. Differences in the combination of grave goods related to the gender or age of the deceased are detectable but these differences are not connected with stylistic groups (RUP-PENSTEIN 2007, 262-265). For example, two or more amphoriskoi have been found exclusively in women's graves (RUPPENSTEIN 1999). Yet, these amphoriskoi do not belong to the same but to diverse stylistic groups. Therefore, the most reasonable explanation for the regular cooccurrence of stylistic ceramic groups in the graves is a chronological development. The above described analysis could be carried out because the graves under study contain single burials. Therefore, all grave goods were deposited at the same time. A deposit with this characteristic is usually called 'closed find' ("geschlossener Fund") or 'closed find group' in the words of A. Furumark (FURUMARK 1941, 33). 10 The examination of closed finds is the prerequisite for the establishment of every comparative, relative chronology, independently if the closed finds have come to light in a settlement or in a tomb. The character of a certain deposit is essential, not where it was found. Consequently, a general higher esteem of pottery from settlement contexts in comparison with pottery from tomb contexts is as naïve as the reverse case.

The method of searching for regular co-occurrences of certain groups of objects in certain contexts is called 'combination statistics' ("Kombinationsstatistik") or 'contextual seriation'. Of course, the method of contextual seriation can be applied successfully only to closed contexts.

Although diverse variants of this method have effectively been used in prehistoric archaeology for many decades it has sometimes been neglected even in recent scholarship of Late Bronze and Early Iron Age Greece. An example is provided by J. K. Papadopoulos who obviously believes that the quality of a certain context is determined by its volume: "The logic here is difficult to follow: for Ruppenstein, a tomb with two pots is a good context, a well or pit with several hundred or several thousand fragments is not" (PAPADOPOULOS 2008).¹¹

After these more general remarks, a short overview of the characteristics of the pottery of the Attic SM/PG transitional style can be given. Because all details can be found in Kerameikos XVIII (RUPPENSTEIN 2007) it seems sufficient to present the results without repeating argumentation and reasoning:

Novelties without a predecessor in the Submycenaean period nor with a successor in the Protogeometric period

- Amphorae and amphoriskoi with handles from shoulder to lip (KRAIKER KÜBLER 1939, pls. 29, 44. RUPPENSTEIN 2007, 146–151, fig. 16, pls. 38, 43. Fig. 3:2). This vessel shape is in all probability derived from Cypriote prototypes as was proposed first by A. Demetriou (DEMETRIOU 1989, 7–8). Amphorae with handles from shoulder to lip are prominent in the repertoire of Proto-White Painted pottery, which were in use during the Late Cypriot III B phase. But the same vessel type is also attested in bronze. Its ultimate predecessor may have been the Mycenaean amphoroid krater. Amphorae with handles from shoulder to lip reappear in Athens in the Late Protogeometric period.
- Bird-vases or bird-askoi (GUGGISBERG 1996, pls. 16:7,8; 17:1–3. RUPPENSTEIN 2007, 135–140, fig. 16, pls. 19, 38. Fig. 3:3). The introduction of this vessel type is again clearly the result of Cypriot influence (DESBOROUGH 1972, 54. GUGGISBERG 1996, 250–252). The re-

For the historical development of the concept of the closed find see EGGERT 2001, 54–55. The fundamental definition was given by O. Montelius over hundred years ago.

Inadequate observance of the concepts of closed find and contextual seriation could be an explanation for Papadopoulos' belief (PAPADOPOULOS 2008) that the method, which was used to define chronological phases in RUP-PENSTEIN 2007, is based exclusively on stylistic analysis.

lation to the bird-askoi of the LH III C period in Achaia seems to be only indirect because also the Achaian examples are probably connected to Cypriot bird-vases.

- Ring vases (RUPPENSTEIN 2007, 156–158, fig. 16, pl. 38. Fig. 3:1). In the case of the ring vases the Cypriote ancestry is obvious.
- Rectangular chests (KRAIKER KÜBLER 1939, pl. 59. KÜBLER 1943, pl. 3. RUPPENSTEIN 2007, 158–159). Cypriot influence is a possible explanation for the introduction of this shape but the evidence is insufficient to be sure. So far only two examples of this type have been found (Kerameikos graves PG 13 and PG 22).
- Shoulder-handled amphora and amphoriskoi (RUPPENSTEIN 2007, 161–163). This vessel type is characteristic for the central Greek regions northwest of Attica. The few Athenian examples are probably related to this area. Very similar to the pots from central Greece is a shoulder-handled amphoriskos from grave Z in the cemetery on the Erechtheion Street (BROUSKARI 1980, 22 no. 11, pl. 3f).
- Cylindrical pyxides (KRAIKER KÜBLER 1939, pl. 61. RUPPENSTEIN 2007, 154–156, pl. 21). The cylindrical pyxides show clear similarities to the Mycenaean alabastra with three legs (FS 99) of the LH III C period, which were especially popular in Attica. Despite the lack of pyxides in Submycenaean graves, it is likely that the cylindrical pyxides are direct successors of the alabastra.
- Furthermore, there are some unique vessels that exemplify the experimental character of the SM/PG pottery style: A kantharos (WILLEMSEN 1963, 152 no. 8, pl. 54:2. RUPPENSTEIN 2007, 165, pl. 18) and a jug with narrow neck that could be called a giant lekythos (KÜBLER 1943, pl. 4. STYRENIUS 1967, fig. 20. RUPPENSTEIN 2007, 165) were found in the Kerameikos. Both vessels are decorated in an exceptional manner. A globular pyxis and a shallow bowl with two handles were found in the Erechtheion Street cemetery (BROUSKARI 1980, 22 no. 12, pl. 3g; 26 no. 26, pl. 5a).
- Moreover, trefoil-lipped jugs or oinochoai of the stylistic group 3 occurred exclusively in the SM/PG transitional period. These vessels are characterized through a nearly complete monochrome-painted body. The shoulder zone is reserved and often decorated with hand-drawn concentric semicircles (RUPPENSTEIN 2007, 105–106). The vessel type of the oino-choe was in use during the Submycenaean phase as well as in the Protogeometric period but with different decoration systems.

Novelties without a predecessor in the Submycenaean period but with a successor in the Protogeometric period

- The belly-handled amphora with an almost cylindrical neck and a turned-out lip (stylistic group 2 = Desborough type I) (DESBOROUGH 1952, 23. RUPPENSTEIN 2007, 113–116, pls. 20, 35). This type of amphora is probably inspired by Cypriote models.
- There is just one prototype for the belly-handled amphora with flaring neck without lip in the late Submycenaean phase (*Stufe* III) (RUPPENSTEIN 2007, pl. 23). But this type of amphora became prominent for the first time in the SM/PG transitional phase (RUPPENSTEIN 2007, 109–113, fig. 14, pl. 34. Fig. 1:4).
- Kraters and krateriskoi (RUPPENSTEIN 2007, 130–135). This shape clearly follows a Mycenaean tradition. Therefore, kraters were probably manufactured during the Submycenaean period as well but were not used in burial contexts. There is a lack of well preserved pieces from the Protogeometric period but quite a lot of fragments (BOHEN 1997, 49 fig. 3).

- Light-ground skyphoi (stylistic group 2) (KRAIKER KÜBLER 1939, pl. 30. RUPPENSTEIN 2007, 94–96, fig. 17, pl. 39). These skyphoi displace during the SM/PG transitional phase the traditional, fully monochrome-painted type. Some but not all of them are decorated with compass-drawn concentric circles.
- The first neck-handled amphora with a set of two compass-drawn concentric circles (KRAIKER KÜBLER 1939, pl. 29) is certainly an important novelty of the SM/PG transitional phase. The vessel type is already attested in the Submycenaean period (RUPPENSTEIN 2007, 120–127).
- The introduction of the pivoted multiple brush for drawing concentric circles (PAPADO-POULOS VEDDER SCHREIBER 1998. DEGER-JALKOTZY 1999, 200–201) is apparently the most forward-looking innovation of the SM/PG transitional period. Concentric circles were applied in the transitional phase only to very few vessels. There is evidence for some skyphoi, belly-handled amphorae, lekythoi, a stirrup jar (see below) and the aforementioned neck-handled amphora from Kerameikos grave PG A.

Submycenaean traditions without continuation in the Protogeometric period

- The most numerous group of this category are the lekythoi with hand-drawn concentric semicircles (Figs. 1:3; 2:1-4) or triangles (Fig. 1:1) that belong to the stylistic group 3 (RUP-PENSTEIN 2007, 53-56). Specimens belonging to the late Submycenaean stage (*Stufe* III) (Fig. 2:1-4) and to the SM/PG transitional phase (*Stufe* IV) (Fig. 1:3) are not distinguishable. There are only two lekythoi with hand-drawn concentric semicircles from EPG contexts. One was found in Kerameikos grave PG 12, the other in Heidelberg grave B (KRAIKER KÜBLER 1939, pls. 67, 37).
- Cylindrical lekythoi (RUPPENSTEIN 2007, 140–144. Fig. 3:4–6). This vessel type is often called bottle (LEMOS 2002, 81–82) but the shape of its mouth clearly shows that it was used in the same way as a lekythos. The cylindrical lekythos was added to the Athenian pottery repertoire in the late Submycenaean phase (*Stufe* III). It apparently follows a Cypriot models as shown by Desborough (DESBOROUGH 1964, 27. DESBOROUGH 1972, 54). In the EPG phase there is only one similar vessel but with a handle from neck to shoulder instead of two small handles at the edge of the shoulder (Heidelberg grave B: KRAIKER KÜBLER 1939, pl. 37. DESBOROUGH 1952, pl. 1).
- Lentoid flasks (RUPPENSTEIN 2007, 144–146). The flasks appeared together with the cylindrical lekythoi in the late Submycenaean phase (*Stufe III*). The flasks belong to the large group of vessels that reflect Cypriot models.
- The stirrup jars made their last appearance in the SM/PG transitional phase. They are still represented in the Kerameikos graves PG 1, PG 13 and PG 22 (KRAIKER KÜBLER 1939, pls. 62, 61. KÜBLER 1943, pl. 4). There are fragments of a large stirrup jar without context that is decorated with hand-drawn as well as with compass-drawn concentric semicircles (KRAIKER KÜBLER 1939, pl. 46. RUPPENSTEIN 2007, 37, pl. 42). It probably belongs to the SM/PG transitional period.
- Monochrome-painted skyphoi are still in use during the transitional phase but they have become rare (Fig. 1:4). A skyphos with reserved zone that is decorated with a wavy line was found in Kerameikos grave SM 1 (Fig. 1:2). It is not known if the skyphos, which is probably an Argive import, belongs to the late Submycenaean phase (*Stufe* III) or to the SM/PG transitional period (*Stufe* IV) because it was found together only with a lekythos of group 3 (Fig. 1:1) that cannot be dated precisely (see above).
- There is still one example of the traditional light-ground cup with wavy line (Heidelberg grave A: Kraiker Kübler 1939, pl. 36. Styrenius 1967, fig. 37. *RMDP*, 634

no. 650, fig. 244). It is the only Attic specimen of its type, which is decorated with a double wavy line. The change from light-ground to dark monochrome-painted as basic decoration of cups started in the late Submycenaean phase (*Stufe III*) and was complete by the beginning of the Early Protogeometric period (RUPPENSTEIN 2007, 127–130). It is noteworthy that the decoration system of the skyphoi was changed at the same time but in the opposite direction: from monochrome-painted to light-ground.

- Fragments of a few amphoriskoi have been found in graves of the SM/PG transitional phase (RUPPENSTEIN 2007, 24, 58–59 n. 191, fig. 17, pl. 40).
- Two multiple vases are known from Athenian cemeteries (RUPPENSTEIN 2007, 166). One of these consists of three amphoriskoi. It was found in Kerameikos grave PG 1 and can be dated to the SM/PG transitional phase. The other specimen, consisting of four amphoriskoi, came to light in grave I in the Aiolos Street (ALEXANDRI 1984). This grave can be assigned to the late Submycenaean phase (*Stufe* III).

Furthermore, novelties that were introduced in the EPG period help to differentiate this stage from the preceding SM/PG transitional phase. The most significant are the widespread use of lekythoi decorated with compass-drawn concentric semicircles and the first appearance of the cup with zigzag band below the rim. Unfortunately, the Greeks of the Early Iron Age did not do us the favour of introducing this type at the same time in other regions outside of Attica (LEMOS 2002, 30-33). Otherwise, a comparative chronology would have been easier. Yet, it is certainly possible to recognize similarities in the pottery of Athens and other areas that allow significant conclusions with regard to chronology. The methodological base for studies of comparative chronology is the assumption that similar objects were in use at different places at the same time. Sometimes traditional elements prevail longer in one region than in another, or, progressive elements are introduced earlier in one place than in another. These possibilities certainly constrain the effectiveness of the method of comparative chronology. However, it is the task of anyone who disputes the contemporaneity of a certain group of similar objects in different places to prove his doubts. Pure speculation about an assumed backwardness of a certain region is not sufficient to disprove the general rule of contemporaneity of stylistic or otherwise similar objects. If this rule is not accepted, comparative chronology loses its methodological foundation.

In the following an attempt will be made to synchronize the Skoubris cemetery in Lefkandi with the Athenian cemeteries. It seems advantageous to begin with the presentation of the two main results:

- 1. There are no decisive differences between the finds from the graves at the Skoubris cemetery that were classified by Desborough as either Submycenaean or Early Protogeometric (POPHAM SACKETT THEMELIS 1979/80, 418, tab. 1). Consequently, the graves of both groups should be united to one single group.
- 2. This group, i.e. all, or nearly all the graves of the Skoubris cemetery, is contemporary with the SM/PG transitional phase in Attica. A first step in this direction has been made by I. Lemos in re-assigning the Skoubris graves 4, 10, 16, 32 and pyre 1A to the SM/PG transitional phase (LEMOS 2002, 10). All these graves were assessed as EPG by Desborough. According to the Attic sequence there are only very few, if any, graves in the Skoubris cemetery, which could perhaps be classified as either SM or EPG proper.

Desborough's reasoning for differentiating SM and EPG grave deposits in the Skoubris cemetery is not convincing (Desborough 1980, 283–284). He mentions the stirrup jar, the alabastron, the feeding bottle with basket handle, and the askoid vase as vessel types that were no longer in use after the end of the Submycenaean period. The feeding bottle (Skoubris grave 44) and the alabastron (Skoubris grave 43) are both unique types and, therefore, chronological not very significant. Furthermore, the so called alabastron shows a general similarity with the Attic

cylindrical pyxides that can be detected only during the SM/PG transitional phase. The askoid vase (Skoubris grave 19) should better be taken as a variant of the bird vase. There are still some stirrup jars in the graves of the SM/PG transitional phase in Attica, as has been shown above. Consequently, there is no reason to believe that the production of this traditional shape stopped earlier in Lefkandi than in Athens. According to Desborough, the amphoriskos with belly handles (Skoubris graves 16, 32, 53), the multiple vase (Skoubris graves 2, 10, 16, 19, 38, pyre 1) and the bird-vase (Skoubris grave 16) belong to the pottery types "which link SM with EPG but go no further, ..." (DESBOROUGH 1980, 283). In Athens the amphoriskos is still represented with a few fragments in the SM/PG transitional period but not at all in the EPG period. The amphoriskos from Skoubris grave 32 (POPHAM – SACKETT – THEMELIS 1979/80, pl. 101) is stylistically nearly identical to the Attic amphoriskoi of stylistic group 4 (RUPPENSTEIN 2007, 67–71). The bird-vase is attested in Athens only during the SM/PG transitional period. One multiple-vase dates to the Late Submycenaean phase (*Stufe* III) the other to the SM/PG transitional phase. In Athens there is no evidence for multiple vases in the EPG period.

As stated by DESBOROUGH (1980, 284) the shallow bowl with high conical foot is the only type, which was introduced during the EPG period to the regular repertoire at Lefkandi. A straight sided pyxis, a bottle, a four handled bowl with high conical foot, a tripod dish and a lentoid flask made their appearance during the EPG phase as unique pieces. For the tripod dish (Skoubris grave 4) and the four handled bowl with high conical foot (Skoubris grave 20/4) there are no parallels in Athens. The appearance of the cylindrical pyxis, which is typologically very similar to the straight sided pyxis (Skoubris pyre 1A), is restricted in Athens to the SM/PG transitional period. The lentoid flask (Skoubris pyre 1A) was used in Athens during the late Submycenaean and the SM/PG transitional phase. A shallow bowl comparable to the pieces from Lefkandi was found in Athens only in grave K of the cemetery in Erechtheion Street (BROUSKARI 1980, 26, pl. 5a). This grave can be dated to the SM/PG transitional phase. In Athens cylindrical lekythoi (bottles) can be detected only in graves of the late Submycenaean and the SM/PG transitional phase.

It has become clear that the pottery from the Skoubris cemetery shows a lot of similarities to Attic ceramics that can be dated to the SM/PG transitional period. In approving Desborough's chronological division of the Skoubris cemetery one has to accept that some pottery types (cylindrical lekythoi, flasks, shallow bowls) were introduced later than in Athens, while one type – the stirrup jar – went out of use earlier. Furthermore, according to Desborough, types that had ceased to be manufactured in Athens were still produced in Lefkandi (bird-vases, amphoriskoi, multiple vases). In applying the general rule of comparative chronology one does not have to accept this unlikely result. It is a much more convincing hypothesis to assess the graves of the Skoubris cemetery as contemporary with the SM/PG transitional phase in Attica. Moreover, it has to be emphasized that the Lefkandian EPG style as defined by Desborough does not show a single characteristic of the Attic EPG style.

A further parallel between the Skoubris and the Athenian cemeteries is provided by the lekythoi with hand-drawn concentric semicircles (Skoubris graves 9, 10, 20, 31, 55, 60). The Lefkandian vessels correspond closely to the Attic Lekythoi of stylistic group 3 (RUPPENSTEIN 2007, 53–56) that is characteristic of the late Submycenaean as well as for the SM/PG transitional phase. With the exception of two cases, these lekythoi were no longer used in the EPG period in Athens. Furthermore, some Lefkandian cups with light-ground and monochrome-painted parts seem to be characteristic of the SM/PG transitional phase (Skoubris graves 40, 42, 49. – Fig. 4:1–2). Comparable pots in Athens are rare (BROUSKARI 1980, pl. 3g) maybe because of the general lack of cups. Apparently, the same change of preference from light-ground to monochrome-painted for the decoration of cups took place in Athens and Lefkandi. There is still one light-ground cup of Submycenaean tradition in the Skoubris cemetery (grave 24). It can be connected through its double wavy line to the cup from Heidelberg grave A (*RMDP*, 634 no. 650, fig. 244). Therefore, a date in the SM/PG transitional phase is more likely

than in the late Submycenaean stage. A further candidate for a chronological position in Submycenaean proper is the amphoriskos from Skoubris grave 32 because of its close similarity to Athenian vessels of stylistic group 4 that was popular in the late Submycenaean phase. However, in the same grave an iron fibula was found. This kind of object has not been detected yet in a SM/PG context in Athens. Nevertheless, the iron fibula does not support a date to the EPG period because it is a roughly symmetrical arched fibula, and this type had lost its popularity in Protogeometric times. Therefore, even for Skoubris grave 32 a dating to the SM/PG traditional phase has the highest probability. Presumably, not a single grave of the Skoubris cemetery can be equated to the Submycenaean period in Attica. A date in EPG proper can be considered for the Skoubris grave 8 because of a high monochrom-painted cup with a relatively small diameter. The changing ratio between the height and the diameter of cups is a chronologically very significant criterion. LH III C cups are comparably low with a wide diameter; PG cups are high with a small diameter (RUPPENSTEIN 2007, 128). Therefore, Skoubris grave 8 could belong to the EPG phase. An argument against this dating is the two simple bronze arched fibulae from the same grave. In the case of Skoubris grave 8 it is difficult to come to a conclusive decision.

At the end of the discussion of the chronological position of the Skoubris cemetery at Lefkandi it does not seem inappropriate to point out that Desborough was aware of the tentativeness of his chronological division because he stated: "It may sound from the above that the change in style was a simple and logical affair. This is not, however, the case, to judge by the number of tomb groups in which vases of SM style are found with those which should be classed as EPG, and by the number of instances where a single vase – if we use the criteria suggested, which are of course subjective – may combine features of both phases. In other words, what we have is a gradual and tentative evolution" (DESBOROUGH 1980, 284).

With the preceding analysis as a base, it can be attempted to incorporate the sanctuary site of Kalapodi in the proposed chronological scheme for Athens and Lefkandi. A monochromepainted cup with a reserved zone that is decorated with a wavy line has been found in layer 17 at Kalapodi. Layer 17 was assigned to horizon 8 (FELSCH 1996, XVI), which is of special interest because of some amphora fragments decorated with compass-drawn concentric circles. The decoration system of the cup from Kalapodi finds close parallels in two aforementioned cups from the Skoubris cemetery at Lefkandi (Fig. 4:1-3). Consequently, the cup from Kalapodi can be dated to the SM/PG transitional period. The same date should be applied to horizon 8 because the cup no. 411 is the most significant piece of pottery from this horizon with the exception of the amphorae with compass-drawn concentric circles. However, these should not be used in determining the first appearance of compass-drawn concentric circles at Kalapodi because circular reasoning could easily be the result. Yet, it appears that the chronological position of horizon 8 that was proposed by R. Felsch and M. Jacob-Felsch in 1996 is still the most convincing (FELSCH 1996, XVI. – JACOB-FELSCH 1996, 99–101). It follows, that the multiple brush and compass were introduced to Athens and the, presumably, central Greek production center of the Kalapodi amphorae at approximately the same time. The same date can be reasonably assumed for the first amphorae with concentric circles at nearby Kynos (DAKORONIA 2003, figs. 14–15) and the amphorae of the Trojan group I (LENZ ET AL. 1998, 197-204, pls. 1; 2:1; 3-6). It is odd that according to current knowledge Lefkandi introduced

¹² JACOB-FELSCH 1996, 166 no. 411, pls. 7, 45. – Fig. 4:3. One fragment of this pot was found in layer 18.

¹³ The cup no. 411 from Kalapodi has already been compared to the cup from Skoubris cemetery grave 49 by JACOB-FELSCH 1996, 100.

In Ruppenstein 2007, 133 no. 525 I presumed that horizon 8 at Kalapodi could be contemporary with the early Submycenaean stage (*Stufe* I) at Athens. This estimation was based on a fragment of a stirrup jar (Jacob-Felsch 1996, 164 no. 395, pls. 18, 44). A date no later than the Early Submycenaean phase in Attica seems to me still persuasive for this piece (cf. Kraiker – Kübler 1939, pl. 11, inv. no. 503). However, at the time of writing Kerameikos XVIII I did not pay enough attention to the cup no. 411.

the new device significantly later than its neighbours to the north and south. Hopefully, the ongoing excavations in Lefkandi will resolve this problem.

At the end of this paper the chronological framework can be augmented by the site of Volos-Nea Ionia because the grave 1961/10 contained a cup (SIPSIE-ESCHBACH 1991, pl. 58:1. – Fig. 4:4) that corresponds closely to the cups with reserved zone and wavy line from Lefkandi and Kalapodi. Therefore, it can be securely dated to the SM/PG transitional phase.¹⁵

Future studies will certainly deepen our present knowledge of the transitional phase from Submycenaean to Protogeometric.

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¹⁵ The grave Volos-Nea Ionia 1961/10 has already been dated to the SM/PG transitional phase by LEMOS 2002, 12.

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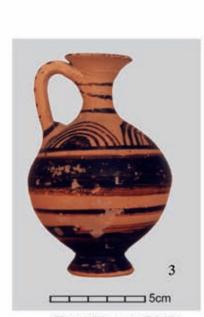
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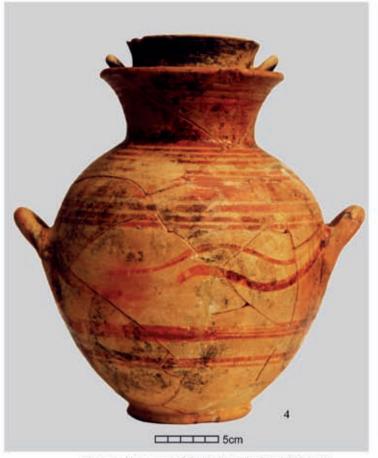
Kerameikos grave SM 1 Lekythos Inv. no. 512



Kerameikos grave SM 1 Skyphos Inv. no. 513 (probably an Argive import)

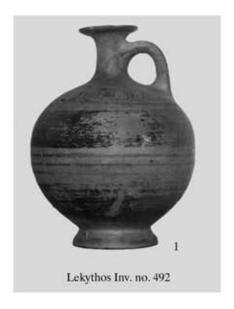


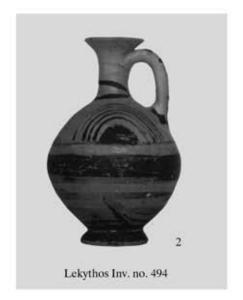
Kerameikos grave PG N 1 Lekythos Inv. no. 849

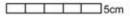


Kerameikos grave SM 145. Skyphos Inv. 8955 and belly-handled amphora Inv. no. 8954 as they were found

Fig. 1:1-3 scale 1:2 and Fig. 1:4 scale 1:3 (photos by the author)









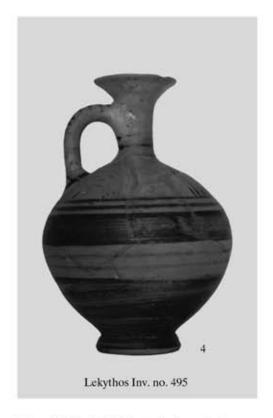


Fig. 2 Kerameikos grave SM 84: Late Submycenaean (phase III). Scale 1:2 (photos by the author)



Fig. 3:1-5 Kerameikos grave SM 146; Figs. 6-7 Kerameikos grave SM 97. Scale 1:3 (photos by the author)

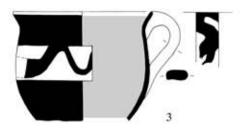


Lefkandi, Skoubris cemetery grave 40/3 (POPHAM – SACKETT – THEMELIS 1979/80, pl. 104)

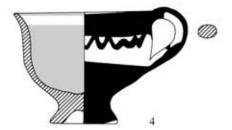


Lefkandi, Skoubris cemetery grave 49/1 (POPHAM – SACKETT – THEMELIS 1979/80, pl. 106)





Kalpodi, Layer 17-18, Horizon 8, Cat. no. 411 (Felsch 1996, pl. 45)



Volos-Nea Ionia, grave 1961/10, Inv. no. 2121 (SIPSIE-ESCHBACH 1991, pl. 58,1)

Fig. 4 Cups with reserved zone and wavy line dating to the SM/PG transitional phase (scale 1:3)

RUPPENSTEIN (2007, 243, tab. 40a)	Stufe IV (SM/PG transitional phase) (Stufe III-IV: SM 1, SM 92, SM 147) SM 114, SM 115, SM 116, SM 119, SM 119, SM 120, SM 145, SM 146, PG A, PG B, PG N 1, PG N 2, PG N 3, PG 14, PG 3, PG 13, PG 14, PG 3, PG 13, PG 14, PG 22, PG 23, PG 24, hs 74, hs 76, hs 92a (Stufe IV-V: PG 2, PG 25, hs 101)						
LEMOS (2002, 9)	SM/PG transitional phase PG N 1, PG N 2, PG N 3, PG 14, PG 22, PG 24	EPG	SM 114 SM 146	(=TN 94-2), PG A,	PG B, PG 1, PG 2, PG	12, PG 13, PG 21, PG	23, ns /4, ns /0, ns 92a, hs 101
KRAUSE (1975, tab. 20, tab. A)	Zeitstufe 3 SM 114, PG A, PG B, PG N 1, PG N 2, PG N 3, PG 1, PG 2, PG 3, PG 4, PG 5 (latest grave), PG 11, PG 12, PG 13, PG 14, PG 21, PG 22, PG 23, PG 24						
STYRENIUS (1967, 64-65, 75-76)	Late Submycenaean B SM 92, SM 97, SM 98, SM 113, PG B, PG N 1, PG N2, PG N3, PG 14, PG 22, PG 23, PG 24	SM/PG Transitional	phase	SM 114, PG A, PG 1,	PG 2, PG 3, PG 4, PG	21, PG 25	
Desboro UGH (1952, 2. – 1973, 96)	SM/PG Transitional phase SM 114, PG A, PG B, PG N 3, PG 1, PG 3, PG 4, PG 12, PG 13, PG 14, PG 21 (= SM 112), PG 22, PG 23, PG 24						
KRAIKER in: KRAIKER - KÜBLER (1939, 140-144)	SM/PG Transitional phase PG A, PG B, PG 1						

Tab. 1 Diverse chronological divisions proposed for graves at the Kerameikos cemetery with regard to the SM/PG transitional phase