TRANSITION FROM MIDDLE TO LATE BRONZE AGE IN CENTRAL MACEDONIA AND ITS SYNCHRONISM WITH THE "HELLADIC WORLD"

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In many aspects Macedonia is considered a peripheral area, but during the Bronze Age it was situated between the two large cultural spheres of the Balkans and the Danube and the Aegean. While on the one hand closely associated with events in the Balkans, central Macedonia is geographically directly adjoined with the Aegean. The region therefore plays an important and connective role in questions concerning farreaching correlations and the course of history in a broad geographical context. The separate chronological periods in central Macedonia and the Aegean can be linked with one another by means of contact finds

- whether imports or imitations - and can be synchronized within the Helladic chronological framework.

1. State of Research on the Bronze Age in Macedonia

The current state of knowledge pertaining to the Bronze Age periods in Macedonia varies greatly among the different periods. Whereas the Early Bronze Age (EBA) is relatively well known and culturally defined – at least in its general features¹ – the Middle Bronze Age (MBA), by contrast, has hardly been investigated and is attested at only a few

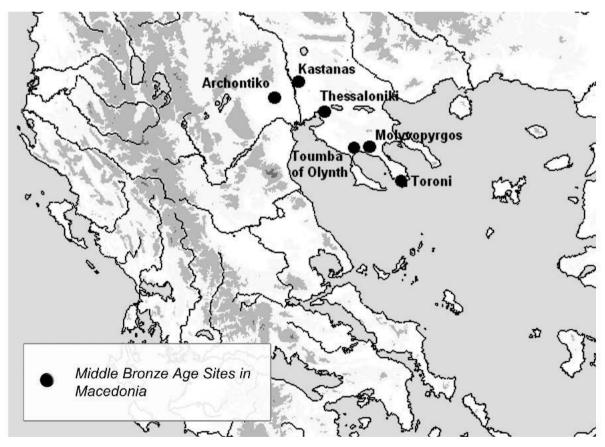


Fig. 1 Settlements of Middle and Early Late Bronze Age in Macedonia

^{*} I would like to thank Emily Schalk for translating the paper.

See the summary by Andreou et al. 2001, 282–313, 321–7 with recommended literature; Alram-Stern 2004, 779–847.

archaeological sites. The settlement of Archontiko in western Macedonia (Fig. 1) apparently emerged at the very beginning of the MBA period,² according to radiocarbon dates that establish the end of the settlement at the transition to the second millennium.³

In Kastanas on the Axios River (Fig. 1) only the beginning and the very end of a MBA cultural horizon are recognizable; all pure levels of this period are absent due to a distinct hiatus in settlement. Building phase 19 in Kastanas, which follows the interruption in settlement, marks the transition to the local Late Bronze Age (LBA), although it cannot be precisely defined due to the limited number and size of the finds. A handmade kantharos with grooved decoration, found in level 19, can be seen as a local imitation of Minyan pottery. A gold ring, also from this level, finds its best parallels in Grave Ξ in Grave Circle B at Mycenae, and hence allows a rough synchronization of level 19 with Middle Helladic (MH) IIIB to Late Helladic (LH) I.

At the Toumba in Thessaloniki (Fig. 1) very little stratified material was obtained from excavations of the horizon preceding the LBA. Finds from the site published in preliminary reports are dated from the MBA to early LBA. These include, in particular, handmade pottery, which can be subdivided according to its local development in central Macedonia; for example, amphoras with broom-brushed surface ("Besenstrich") and vessels with characteristic incised decoration. A few Grey Minyan sherds are also present, and a handmade bowl with horizontal grooved decoration was found in level 8. The bowl can be identified as a local Minyan imitation comparable to the one in Kastanas.

At the Toumba in Molyvopyrgos (Fig. 1), W.A. Heurtley uncovered settlement remains that he dated to the EBA and MBA.¹⁴ Finds from four sectors of the MBA period B cannot be assigned to a specific building phase, however, and some trenches contained LBA material. Besides handmade local imitations of Minyan pottery, genuine Grey Minyan ware was also present.¹⁵ J. Maran dates the latter to the "Mature Minyan phase" at the earliest, but it could equally well be placed in the transition from MH III to LH I.¹⁶ Hence, period B in Molyvopyrgos seems to have covered a longer span of time than Heurtley suggested.

Research in Toroni, on the southwest coast of the Sithonia peninsula (Fig. 1), is not yet concluded. MBA sherds from the site have been mentioned and some are illustrated in preliminary reports and in the first volume of the series on the excavations. The authors compare the sherds with examples from Molyvopyrgos and with older finds from the Toumba at Olynth (Ayios Mamas). 17 Only one wall with accompanying floor, from trenches 67 and 68, has been assigned to the MBA.¹⁸ The published pottery found in these complexes seems to be less the "real" Grey Minyan ware, and more the local handmade imitations that are characteristic of the north - for example, of Kastanas, Molyvopyrgos and Thessaloniki. 19 A relatively large amount of the early Mycenaean pottery can be dated to LH I and IIA-B,²⁰ confirming the continued use of the area into these periods.²¹

This brief synopsis is intended to show that until now, it has not been possible to define the MBA in Macedonia as a distinct period. The beginnings of the LBA seem equally vague. The picture of events dur-

² Papaefthymiou-Papanthimiou and Pilali-Papasteriou 1992, 1993, 1994, 1997, 1998, 1999, 2000; Pilali-Papaste-RIOU and Papaefthymiou-Papanthimiou 1995; Papanthimiou and Pilali 2004.

 $^{^3}$ Papanthimiou and Pilali 2004, 59.

⁴ Hänsel 1989, 53.

⁵ Ibid.

⁶ Hänsel 1989, 65–70.

⁷ Hochstetter 1984, 64, pl. 2,10.

⁸ Hochstetter 1987, 15, pl. 25,9.

⁹ Andreou and Kotsakis 1988; Anagnostou et al. 1990; Andreou et al. 1990; Andreou and Kotsakis 1992, 1991, 1991–2, 1993, 1996, 1999; Kiriatsi et al. 1997; Kiriatsi 1999, 2000.

 $^{^{10}\,}$ Andreou and Kotsakis 1996, 379 (phases 10 to 6).

¹¹ Ibid., 382.

¹² Ibid., 380 footnote 23.

¹³ Ibid., 382 fig. 10,TKA 889.

¹⁴ Heurtley 1939, 12.

¹⁵ Ibid., 210 ff. n. 398–9; 211 fig. 78, 79; 212 fig. 80–1.

¹⁶ Maran 1992, 382 f.

CAMBITOGLOU and PAPADOPOULOS 1988; 1990, esp. 142;
 1991, esp. 165 fig. 21; CAMBITOGLOU et al. 2001, fig. 48,3.16–3.22; 49,3.23–3.25.

 $^{^{18}\,}$ Cambitoglou and Papadopoulos 1989, 159 fig. 15, 162 ff.

CP. CAMBITOGLOU and PAPADOPOULOS 1989, 165 fig. 21 with HOCHSTETTER 1984, 64, pl. 2,10 (Kastanas); HEURTLEY 1939, 210 n. 396-7 (Molyvopyrgos); ANDREOU and KOT-SAKIS 1996, 382 fig. 10,TKA 889 (Thessaloniki).

²⁰ CAMBITOGLOU and PAPADOPOULOS 1989, 165 fig. 22, 166 fig. 23

Remains found in the small sections hardly convey an impression of the former architecture. Mention is made of a stone basement surmounted by a mudbrick wall accompanied by a floor (Cambitoglou and Papadopoulos 1988, 140), which probably belonged to the house with walls 16, 9 and 10 and in whose floor a pithos was embedded during a second phase (Cambitoglou and Papadopoulos 1989, 162 ff.).

ing the developed phase of the LBA, by contrast, is quite different. The number of excavated and published archaeological sites suddenly increases in LH IIIA.²² From this point onward, aside from the dominant local handmade wares, Mycenaean wheelmade pottery is used as well, enabling the uninterrupted chronological synchronization of settlements and necropoleis in Macedonia with those in central and southern Greece.²³

Recent excavation at the Toumba of Olynth (Ayios Mamas) has enabled detailed observations of the MBA and LBA in a continuous sequence of settlement. The uninterrupted building phases of the settlement allow for a definition of local development and subdivision, which can then be correlated – on the basis of various imports and imitations – with diverse cultural spheres ranging from the Danube areas in the north to southern Greece. In the following discussion, the development of settlement in Prehistoric Olynth will first be summarized, followed by a defining of the transition from the MBA to LBA, and will then be synchronized with the chronological framework of southern Greece.

2. The Toumba of Olynth

The Toumba of Olynth was excavated by William A. Heurtley in the 1920s and has since been referred to in the archaeological literature as Ayios Mamas.²⁴ It is located on the Chalkidiki between the Kassandra and Sithonia peninsulas and belongs to the modern community of Nea Olynthos. In all likelihood the Toumba was the predecessor of the renowned archaic and classical city of Olynthos.²⁵ Today the Toumba lies at a distance of about 5 km from the coast, but in prehistoric times it was probably a small peninsula that jutted into the sea. In the course of time, the area around the site gradually became silted up, which might account for its abandonment during the Protogeometric period at the latest.

From 1994 to 1996, excavations were resumed under the direction of Bernhard Hänsel as part of a research project of the Free University of Berlin and the German Archaeological Institute (Fig. 2). A surface area about 30 m in width was opened on the west side of the Toumba and was progressively enlarged to encompass a total of three large stepped



Fig. 2 View of the Toumba of Olynth from the West

For a compilation of the most important sites with recommended literature, see Andreou *et al.* 2001, 285 fig. 2; Horejs 2005, 10 ff.

WARDLE 1993; WARDLE et al 2001; Jung 2002a, 230-43; Jung 2003a, 2003b, (forthcoming).

 $^{^{24}}$ Heurtley and Ralegh Radford 1927–28, 118–55; Heurtley 1939, 1–10.

²⁵ Hänsel 2002, 71.



Fig. 3 Trenches on the west slope of the Toumba

areas (Fig. 3). Only a small part of the Toumba was uncovered, from the top to about halfway down; the lower part and the base of the Toumba remained untouched. Evaluation of the archaeological find complexes has been completed and preparations for publication of the individual categories of finds are in progress.²⁶

History of settlement

A total of 18 consecutive building phases, designated as levels, could be distinguished. As is often the case, within the limits of the excavated area, only parts of building structures, and no complete structures, were exposed. Two factors were decisive for the subdivision of the settlement levels in the Toumba of Olynth: first, the building development as evidenced by the architectural complexes, and second, the development of local handmade pottery that predominated among finds in all phases. Examination of these developments attests that the Toumba of Olynth was continuously inhabited for a span of approximately 1,000 years.²⁷

The earliest excavated level, 18, with simple one-

A change in architecture can again be observed in level 13. Mud bricks begin to be used for building, and houses with several rooms are closely aligned along the longitudinal axis of the Toumba (Fig. 4).³² A distinct change is initiated in the pottery spectrum. Vessel shapes characteristic of the LBA are now produced for the first time; for example, bowls with wishbone handles (Fig. 5), undecorated globular kan-

room houses built of posts and wattle-and-daub, possibly dates to the last phase of the EBA – that is, the transition to the MBA²⁸ – and is designated as period I at Prehistoric Olynth.²⁹ Levels 17 to 14 display an architectural plan differing fundamentally from that of level 18. Instead of a row of adjoined, one-room structures, the houses now have several rooms and are arranged parallel to one another.³⁰ Investigations by I. Aslanis of the ceramics found in levels 17 to 14 are not yet completed; however, initial findings indicate a very homogeneous spectrum of pottery. Characteristic MBA forms and wares, such as the so-called rötliche Keramik, date these levels to the MBA, and they together constitute period II at Prehistoric Olynth.³¹

First preliminary reports by BECKER 1996; KROLL and NEEF 1997; ASLANIS and HÄNSEL 1999; BECKER 1999;
 KROLL 1999; HÄNSEL 2002, 2003; JUNG 2002b, 2003a, 2003b; (forthc.); HOREJS, 2003, 2005a.

 $^{^{27}}$ Horejs 2005b, 320–22.

²⁸ Hänsel 2002, 73, 75 fig. 5; 76 fig. 6.

 $^{^{29}\,}$ Horejs 2005b, 320 tab. 31.

 $^{^{30}\,}$ Aslanis, in preparation.

³¹ Horejs 2005b, 320 f.

³² Hänsel 2002, 75, 77 fig. 7.

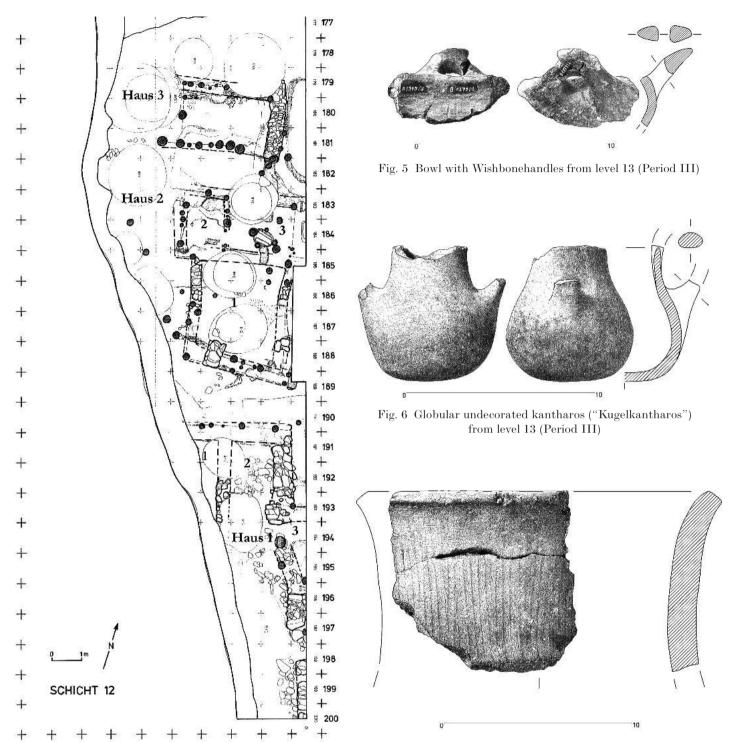
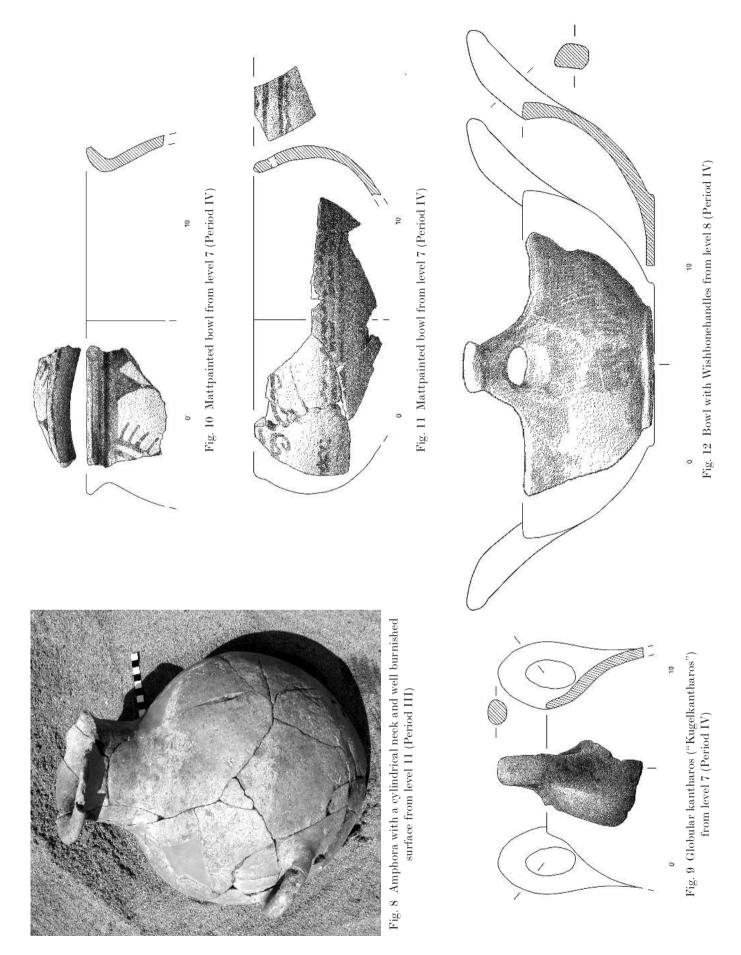


Fig. 4 Architectural remains of level 12 (Period III)

Fig. 7 Amphora with a cylindrical neck and "broombrushed" surface ("Besenstrich") from level 13 (Period III)

tharoi ("Kugelkantharoi") (Fig. 6), and amphoras with a cylindrical neck (Figs. 7, 8). New fine and coarse wares typical of the LBA can also be observed, and remain in use until the end of the settlement. Only a few elements still provide a link to traditions of the older MBA levels; for example, vessels with a

rounded spout and the "broom-brushed" surface ("Besenstrich") of coarse vessels. These elements can be interpreted as a continuation in the development of local pottery still tied to older MBA traditions. The architecture as well as the spectrum of pottery shapes and wares indicate that levels 13 to 10 belong



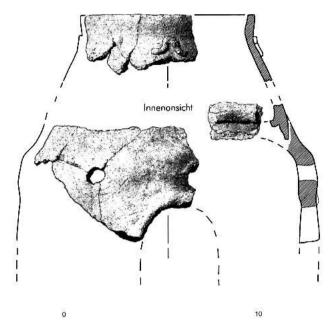


Fig. 13 Pyraunos from level 8 (Period IV)

to one and the same period, defined as period III, the early phase of the local LBA. 33

Houses in levels 8 and 7 are larger in size, but are still constructed of mud bricks set upon stone foun-

dations.³⁴ It is in this phase that the first fragments of Mycenaean pottery are attested.³⁵ The local handmade vessels correspond in shape and fabric to the well-known repertory of pottery of the developed LBA in Macedonia;³⁶ for example, globular kantharoi ("Kugelkantharoi") with and without incrusted decoration (Fig. 9), variations of matt-painted pottery (Figs. 10, 11), different types of bowls with wishbone handles (Fig. 12) and the *pyraunos*, a cooking pot typical of the Balkans (Fig. 13).

Beginning with level 6, houses are notably smaller and are arranged along a street that runs parallel to the hill's longitudinal axis. They continue in the basic construction found in earlier levels, mudbrick structures built upon a stone foundation, in levels 5 through level 2 (Fig. 14).³⁷ The range of local pottery clearly conforms with that of the developed to late LBA,³⁸ whereas Mycenaean wheelmade ware becomes more frequent and increases substantially in level 3.³⁹

Level 1, the latest level, was extensively disturbed by Byzantine use of the mound as well as by erosion, so that its architectural remains can scarcely be determined. Only occasional pits and sections of walls attest this latest phase. A few scattered pottery frag-

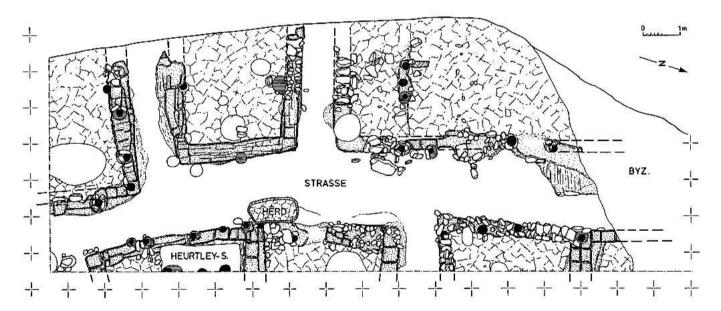


Fig. 14 Architectural remains of the levels 5 to 3 (after Hänsel 2002, 94 fig. 20)

 $^{^{33}\,}$ Hore Js 2005b, 293–8, 312–4, 319 tab. 30.

³⁴ Hänsel 2002, 91.

 $^{^{35}}$ Jung, in preparation.

³⁶ Horejs 2005b, 314 ff.

³⁷ Hänsel 2002, 93 f. fig. 20.

³⁸ Horejs 2005b, 314–7.

³⁹ Jung, in preparation.

Periods of "Prehistoric Olynth" (PO)	Level	Local Chronology	
PO VI	1+0	Early Iron Age	
PO V	2		Late
	3		
	4		
	5		Middle
PO IV	6		
	7	Late Bronze Age	
	8		
PO III	(9)		Early
	10		
	11		
	12		
	13		
PO II	14		
	15	Middle Bronze	
	16	Age	
	17		
PO I	18	(EBA-) MBA	

Fig. 15 Table of Periodisation and local chronology of the Toumba of Olynth

ments found without any architectural context indicate the final use of the mound in Submycenaean to Protogeometric times.

In summary, based on developments in the local pottery and in architecture, the 18 levels in the Toumba of Olynth can be assigned to the following periods (see Fig. 15). The transition from the EBA to MBA, period I of the Toumba, occurs in level 18. Period II encompasses the MBA, in levels 17 to 14. Level 13 marks the beginning of the LBA, assigned on the basis of developments in pottery and architecture to periods III, IV and V. Settlement at the Toumba comes to an end in level 1, dated to the Early Iron Age and assigned to period VI.

The Toumba in Olynth represents, for the first time in Macedonia, a settlement with a continuous, uninterrupted stratigraphy, supported by developments in architecture and pottery and encompassing the entire MBA and LBA. The extent to which this division into periods corresponds to stages of development in central and southern Greece will be taken up in the following section, in which the focus will be the transition from the MBA to LBA – that is, periods II and III at Prehistoric Olynth – which yielded a pottery spectrum that enables a synchronization with the Helladic system of sequence.

3. SYNCHRONIZATION

Three categories of MBA to LBA ceramics from the Toumba at Olynth can be used for correlating the local chronology with that of southern Greece: Minyan pottery, imported painted cups and a few early Mycenaean fragments.

Minyan pottery is represented in levels 16 to 11 at Olynth - that is, within periods II and III - and is most frequent in levels 14 to 12.40 It mainly comprises different hues of a Grey Minyan ware; wheelmade brown and yellowish beige vessels are, by contrast, infrequent. 41 Without entering into a complex discussion about the various descriptions of Minyan ware presented in publications, 42 let it suffice to state that the Olynthian finds best correspond to the so-called True Grav Minvan Ware in central Greece⁴³ and to fine and coarse Grey Minyan ware from Pefkakia Magula. 44 The spectrum of shapes of this "true" Minyan ware is quite distinct, consisting of a limited number of types with variants. Open vessels predominate, as expected, among which several varieties of goblets are the most frequent. The most important and datable types that appeared in the sequence of levels will be presented here.

In level 15 of period II only few characterizing Minyan shapes begin to appear. The goblet variant with a thickened T-shaped lip (Fig. 16) can be compared with goblets with similar rims from Pefkakia phases 6 early to 7;⁴⁵ it is also basically similar to goblets found in the first settlement horizon at Eutresis⁴⁶

⁴⁰ Horejs 2005b, 195 fig. 90.

⁴¹ In level 13 a presumably handmade and locally produced imitation ("minysche Imitation") occurred alongside "genuine" wheelmade Minyan pottery, which, however, will not be discussed at length here.

For the various usages of the term "Minyan", see for example Bulle 1907, 9; Wace and Blegen 1916–8, 180 f.; Caskey 1966, 119; Kilian 1976, esp. 117 with fig. 5; Zern-

ER 1986, 59-66; 1993, 42 ff.; Nordquist 1987, 48; Dietz 1991, 31; Maran 1987; 1992, 80, 102.

⁴³ Zerner 1993, 42 ff.

⁴⁴ MARAN 1992, 80, 102 ("grauminysche Ware feiner Machart" and "grauminysche Ware grober Machart").

⁴⁵ MARAN 1992, 85 ("Schale Typ 1FIa"); pl. 89,3; 96,10; 103,9; 117.8; 120.6.7.

 $^{^{46}}$ Goldman 1931, 137 fig. 185,3.



Fig. 16 Goblet with t-shaped lip from level 15 (Period II)

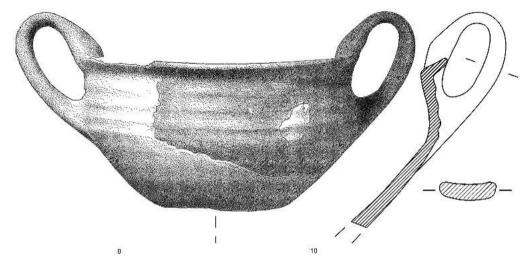


Fig. 17 Kantharos with everted rim and horizontal-ribbed surface from level 15 (Period II)

and at Thebes.⁴⁷ At the same time, the kantharos with high vertical handles appears for the first time (Fig. 17). Its surface is either divided by horizontal ribs or is left plain. This type of kantharos has been categorized by Oliver Dickinson as "Mature Minyan" and "Late phase" and is accordingly quite frequent in the Minvan repertory of central and southern Greece.⁴⁸ The best analogies can be found in Pefkakia phases 5 to 7,49 in the second horizon at Eutresis,50 at Orchomenos⁵¹ and in late MH Asine⁵² and in Lerna V, where it is categorized by C. Zerner as "Dark Burnished Ware". 53 Two similar kantharoi with horizontal ribs are published from Molyvopyrgos, where they are described as wheelmade.⁵⁴ Similar shapes with plain surface are part of the typical repertoire of Anatolian Grey Ware from Troy VIa (MH III) onwards.⁵⁵

By contrast, in the succeeding level 14, the entire spectrum of open vessels is represented. The simple

goblet with a low shoulder and diagonally flattened rim belongs to the standard Minyan repertory during the developed MH period (Fig. 18). This so-called Lianokladi Goblet is quite comparable to the shape designated by Maran as type 1FIa in Pefkakia phas-

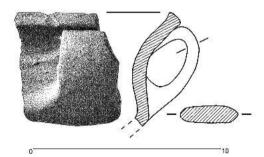


Fig. 18 Lianokladi-Goblet with high shoulder from levels 14+15 (Period II)

⁴⁷ Konsola 1985, 16 fig. 1,2.6.

⁴⁸ Dickinson 1977, 19–23.

MARAN 1992, 87; pl. 55,14; 97,2 (type 1HII); pl. 56,1; 64,10; 69,7.8; 113,12 (type 1HIII); 88; pl. 83,3 (type 2CII); pl. 103,16a-b; 117,9; 124,6 (type 2CIII).

 $^{^{50}}$ Goldman 1931, 139 fig. 187,2.

⁵¹ Buchholz and Karageorghis 1971, 304 n. 883.

⁵² Nordquist 1987, 171 fig. 48,3; 173 fig. 52,6.7.

New unpublished pottery charts from Lerna V Area D are handed out by C. Zerner at this conference, in which this analogy is on fig. 28,P528 (Lerna V:5, MH II later).

⁵⁴ HEURTLEY 1939, 210 nr. 396–397.

 $^{^{55}}$ PAVÚK 2002, 51 f. fig. 11,39–42 and PAVÚK this volume.

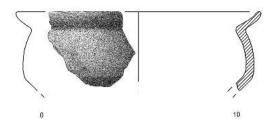


Fig. 19 Semiglobular cup from level 14 (Period II)

es 5 to 7,56 despite the thickened lip that distinguishes it from Olynthian shapes. Further analogies can be found in late Middle Helladic houses at Asine:57 in several graves of Grave Circle B at Mycenae;⁵⁸ and in Ayia Irini V;⁵⁹ where it is dated to the advanced MH period. At the same time there appears a variation of that goblet, with handle pressed into a comparatively high shoulder. Significantly, this shape typifies the latest developmental phase of goblets, as Joseph Maran was able to discern in Pefkakia, where this type is confined to phase 7.60 Two Grey Minyan goblets, one of which has a thick buff slip, were published from the neighboring settlement at Molyvopyrgos. 61 On the whole, the dating of the analogies for this Olynthian Goblet varies from developed to late MH; only the variant with pressed handle is limited to the last developmental phase of Minyan pottery, MH IIIB to LH I.

Another new feature attested in level 14 is the

semiglobular cup (Fig. 19). Although the handles are not preserved on a single such cup in the Toumba of Olynth, the cups are nevertheless fairly comparable with semiglobular cups in central and southern Greece. The globular body has a slightly outcurving rim without any special treatment of the lip. Oliver Dickinson designates the cups as a characterizing element of the "Late Phase", marking the final phase in the development of the Minyan pottery. The finest analogies are found in the later Graves Γ and M in Grave Circle B, dated by Sören Dietz to LH I. There is also relative similarity to types 3F and 1FII from Pefkakia Magula; however, these appear over a longer span of time, from phase 4 to 7.64

Several variations of the Lianokladi Goblet as well as of the semiglobular cups emerge in level 14 (period II) at Prehistoric Olynth and continue to appear through level 12 (period III); the single exception is the so-called Pteleon Goblet, 65 examples of which were found only in level 14+15 (Fig. 20). Although the handles on the Olynthian examples are broken, it can be assumed that there were two and that they were raised, round and horizontal. 66 These goblets can be compared with type 1FIb that appears in Pefkakia phases 5 to 7, most frequently in phase 6 middle. 67 Further analogies can be observed in the first horizon at Eutresis, 68 the ninth city (IX) on Aegina (group XXXV), 69 and grave Γ of Grave Circle B. 70 The last was assigned by Sören Dietz to the older

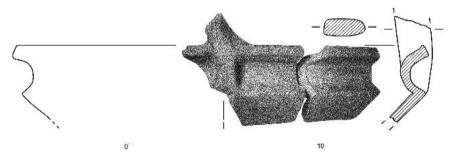


Fig. 20 Pteleon-Goblet from level 14+15 (Period II)

MARAN 1992, 85 f. pl. 46,13 (without carination); 46,15; 55,6.8; 68,10; 69,1.

⁵⁷ Nordquist 1987, 171 fig. 49,2; 173 fig. 52,4–5.

⁵⁸ Mylonas 1973, pl. 92δ (grave H); 96α.γ; 97α (grave I); 141α (grave N); 197α (grave P); 51γ–δ; 205β–γ (grave Γ); 174β–γ; 175α–β (grave O); 118α–β; 119α–β; 120α (grave Λ).

⁵⁹ Davis 1986, pl. 22,7.8.

⁶⁰ Maran 1992, 86 with fig. 3.

⁶¹ Heurtley 1939, 210 n. 398; 211 n. 399.

DICKINSON 1977, 22 with fig. 3. See also the discussion of semi globular cups with further literature in PAVÚK, in this volume.

 $^{^{63}~}$ Mylonas 1973, pl. 5281–2; 133 $\eta.$

⁶⁴ Maran 1992, 58; 89; pl. 51,9; 97,3; 113,2.8.

⁶⁵ After Pavúk 2002, 48 ff. esp. 51 with footnote 107.

⁶⁶ Ibid., pl. 148,1-3.

⁶⁷ Ibid., 86; pl. 55,7; 68,12; 82,14; 89,3; 93,7; 96,15; 107,18; 113,5.6; 116,14.

⁶⁸ Goldman 1931, 136 fig. 184,3.4; 137 fig. 185,6.

⁶⁹ Walter and Felten 1981, pl. 121,437–9.

 $^{^{70}~}$ Mylonas 1973, pl. 156 $\!\alpha.$



Fig. 21 Amphora or Amphoriskos with conical neck and everted rim from level 13 (Period III)

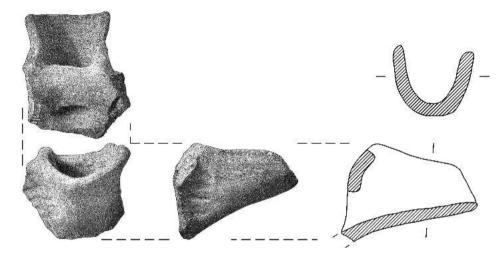


Fig. 22 Bridge-spouted jar from level 13 (Period III)

group in MH IIIB. Three Pteleon-Goblets from Lerna V show a wider chronological range from MH III early to MH III early.⁷¹ Those Goblets are typical for the older phase of Troy VI Early (VIa),⁷² which is dated by PAVÚK in MH III.⁷³

The entire spectrum is still present and more numerous in level 13 (period III), now including only two additional vet decisive shapes: amphoras or amphoriskoi with a conical neck and thickened lip, which appear only in this level (Fig. 21). Closed vessels are not a typical shape during the peak of Minyan pottery, appearing only during its final developmental phase.74 The best analogies are noted in graves E and M of Grave Circle B,75 which Dietz dates to LH I.76 Amphoriskoi found at other sites are not directly comparable;77 however, their late appearance in stone cist graves in Pefkakia, dated to phase 7 and later, 78 represents a rough chronological foothold at least for the use of closed Minyan vessels. The fragment of a bridge-spouted jar from the Toumba of Olynth is unique (Fig. 22); its only convincing analogy comes from grave VI, 949 in Grave Circle A in Mycenae, and probably dates to the beginning of LH $\rm I.^{79}$

The last tie to Minyan pottery is represented by a jug with a half-broken neck from level 11 (Fig. 23), the neck covered – from the break of the missing rim downward – with broad horizontal ribs. The narrow possible cutaway neck finds its best parallels in a

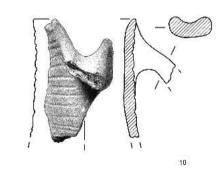


Fig. 23 Jug with cut-away-neck (?) from level 11 (Period III)

Nee above footnote 53, fig. 24,P475 (Lerna V:4); fig. 28,P550 (Lerna V:5 oder V:6).

⁷² PAVÚK 2002, 48 ff. Abb.10 and this volume.

 $^{^{73}\,}$ See PAVÚK in this volume.

⁷⁴ Dickinson 1977, 22 with fig. 3.

⁷⁵ Mylonas 1973, pl. $80\alpha 1-2$; 133 γ .

⁷⁶ Dietz 1991, 250.

GOLDMAN 1931, 141 fig. 193; 164 fig. 230; 166 fig. 232,1
 (Eutresis); KONSOLA 1985, 18 fig. 4,1 (Thebes).

⁷⁸ Maran 1992, pl. 123,8,12,14.

⁷⁹ Dickinson 1977, 22; Dietz 1991, 203.

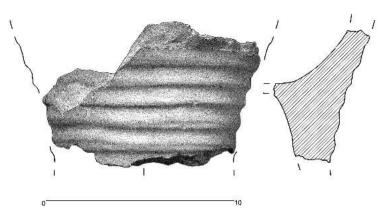


Fig. 24 Fragment of a ribbed pedestal from level 13 (Period III)

Grey Minyan jug from grave 1971-3 in Asine, 80 dated to MH IIIB or LH IA. 81

Any conclusive remarks as to the development of the vessels' pedestaled foot would be premature at this stage in research. Basically, tall ribbed pedestals appear in levels 14 to 11. The fragment of a massive ribbed pedestal found in level 13 presents a very gradual junction with the body (Fig. 24). The pedestal has convincing comparisons in two goblets from grave Δ of Grave Circle B, 82 whose profile and

	Level	16	15	14	13	12	11
GI	7 1 5						
G3	7 7						
G4	√	y					
G5	三介罗						
T1							
KI							
Al	7 7					8	
Krl							

Fig. 25 Duration of Minyan Types in the Toumba of Olynth

 $^{^{80}\,}$ Dietz 1980, 48 fig. 49; 51 fig. 57,37.

 $^{^{81}\,}$ MH IIIB according to Dietz 1980, 88; LH IA according to Dietz 1991, 203 fig. 61 BE–1.

 $^{^{82}}$ Mylonas 1973, pl. $66\delta1-2$.

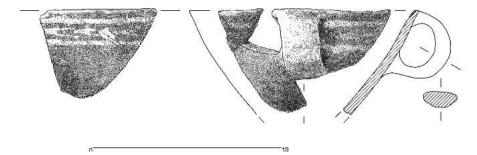


Fig. 26 Handmade painted cups from level 7 (Period IV)

impressed handle link them to Pefkakia phase 7 and which can be dated to MH III.⁸³ This occurrence is paralleled by the appearance of shorter pedestals with a smooth surface in levels 13 to 11 at Olynth, which would correspond roughly with Dietz group 2⁸⁴ and would thus belong to the later developmental phase of the goblets.⁸⁵

Let us consider once again the span of time in which the characteristic vessel types are present in the Toumba of Olynth (Fig. 25). Shapes appear in level 15 that correspond in general to those of the developed MH period. However, already in level 14 and more distinctly in level 13 we are confronted with a problem. There we find, on the one hand, several forms that are typical "Mature Minyan" vessels, yet, on the other hand, forms that - according to the current classification in southern Greece - belong to the latest and final developmental phase of Minyan pottery. In accordance with the methodological concept that the temporally latest pieces of pottery in a complex determine its date, the following synchronization would result for Minyan pottery in Prehistoric Olynth. Levels 15 and 14 can be most closely correlated with a developed to late MH period, which would roughly correspond to MH II to III. Level 13 at the latest - that is, period III at Olynth - correlates with MH IIIB to LH I, a horizon that can scarcely be defined more precisely by the Minyan pottery of central and southern Greece.

Two imported handmade cups from level 7 enable a synchronization also of the following period (IV) in Olynth with the Helladic chronological system (Figs. 26, 27). They were found along with a third cup, albeit a matt-painted cup, in a vestibule-like struc-

ture in a large building complex. The two conical cups are monochrome, painted both inside and out in a dark red color covering the whole surface. The slightly shiny surface is well burnished, showing only a few irregularities. The decoration is executed in a dull, milky white color. The fabric of the cups was fired hard and has a grev core. The temper is fine with some amount of silver mica visible on the surface. Both cups are identical in ware and undoubtedly of the same origin. The style of painting, in light on a dark ground, as seen here, is an absolutely singular appearance in northern Greece, which would justify their interpretation as imports. Yet, although numerous categories of painted pottery exist in southern Greece, no direct analogies exist for this ware. Similarities can best be sought in the "white on burnished dark ware" of the northeastern Peloponnese. However, this ware usually does not have a slip and, in contrast to the Olynthian cups, it has a pink core with small black inclusions.86

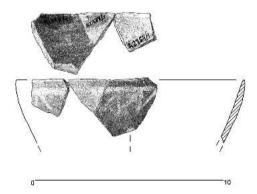


Fig. 27 Handmade painted cups from level 7 (Period IV)

 $^{^{83}\,}$ Dietz 1991, 204 fig. 62; 250 fig. 78.

⁸⁴ DIETZ 1980, 80 f. He divides the goblets from Grave Circle B into two chronological groups, the later group of which (group 2) is characterized by goblets with a round body without ribs and with a low foot.

 $^{^{85}}$ Cf. Grave Γ (Mylonas 1972, pl. 517.8). According to Dietz 1991, 250: LH IA–B.

⁸⁶ DIETZ 1991, 29–35. I thank M. Lindblom for drawing this to my attention.

Both cups possess a slightly curved conical body with a small narrowing lip and a diameter at the mouth of ca. 12 cm. One cup still has a vertical ribbon handle, 0.8 cm in section, that attaches at the rim and extends to the middle of the body. The shape of the cups is essentially comparable with the "egg cups" of southern Greece, which, however, were produced in another ware. 87 There the majority is decorated in the "mainland panelled style". which does not concur with the decoration on the conical cups from Olynth. J. Davis has compiled a total of 32 examples of this type of cup from Asine. Aegina, Korakou, Mycenae, Tirvns and Zygouries that date from MH III to LH I and that no longer appear in the later graves of Grave Circle A.88 Some display a similarity in decoration to the Olynthian cups with lip encircled by a narrow band and the handle painted with a "ladder" motive. 89 A mattpainted cup with a similar encircling narrow frieze consisting of a row of lateral V's, bordered on each side by a narrow horizon band, was found in Grave Γ of Grave Circle B in Mycenae. 90 Similar motives also appear on matt-painted cups from a stone cist grave as well as in the lower town at Asine. 91 The decorative motive on the second cup from Olynth, consisting of a simple horizontal band of zigzags encircling the rim, compares only roughly with motives in southern Greece, where matt-painted pottery often displays several parallel bands of large zigzag-like designs.92 In short, an origin in southern Greece can be presumed for both imported cups at Olynth, and in view of the analogies presented above they can be dated to LH I.

A further chronological fixed point for period IV in the Toumba at Olynth can be gained from the Mycenaean pottery, which appears first but infrequently in level 7 and thereafter increases in number. The preliminary dating of the Mycenaean ware as determined by R. Jung points to a date in LH IIA for level 7, followed by (LH IIB-) LH IIIA1 for level 6 and LH IIIA late for level 5.93 Consequently, the four building phases of period IV at Olynth, which on the basis of the development in

pottery could be defined as the middle phase of the LBA, would encompass the chronological horizons LH I to LH IIIA late.

In conclusion, the synchronization of the local settlement history at the Toumba of Olynth with central and southern Greece presents the following picture:

Starting with level 15 of period II, which comprises the locally defined MBA, a cautious correlation may be made with MH II to MH III, based on the Minyan pottery. The four building phases of period III – the time of the early LBA – can be roughly synchronized with MH IIIB to LH I. Finally, the beginning of period IV (levels 8–7) can be linked with LH I to LH IIA, based on the imported painted cups and individual Mycenaean fragments.

4. Conclusion

The continuity in habitation at the Toumba of Olynth during the entire MBA and LBA has made it possible to define these periods, from beginning to end, for the first time in Macedonia. In the nearly 1,000 years of settlement history at the Toumba there were recurrent intervals of time during which contact with the Aegean increased. The period of the developed MBA and early LBA as described here represents such a phase, during which the coastal region of central Macedonia and the Chalkidiki were obviously involved in a broad communicative network with the Aegean.

Analysis of the local development in Macedonia and its synchronization with the Helladic chronological system has shown that the transition from the MBA to LBA in Macedonia can be directly correlated with the shaft-grave horizon in southern Greece.

Thus, the epoch that brought about great achievements and changes in the south is now attested to a substantial extent in Macedonia as well. Finds verifying this contact, as shown here, are evidence that the regions of central Macedonia and the Chalkidiki were not at all isolated from the activities farther south; indeed, they played a part in the Aegean interrelationships.

⁸⁷ Davis 1978, 219.

⁸⁸ Davis 1978.

⁸⁹ Ibid., 219 fig. 3.

⁹⁰ Mylonas 1973, pl. 52α; 240 G–53.

 $^{^{91}\,}$ Hägg and Hägg 1975, 159 fig. 14 (right); Dietz 1991, 94 n. 256; 95 fig. 27,256.

⁹² Examples in NORDQUIST 1987, 169 fig. 43,5.7.8.

⁹³ R. Jung (pers. comm.).

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