

David has made here a very significant contribution to the study of the Early and Middle Bronze Ages in central Europe. The problem for the reader is the indigestible nature of the text, the interminable discussion of minute stylistic sub-groups, and the difficulty of using the results. To have the Nackenscheibenäxte subdivided into such cumbersome groups as A.1.2.1.2 (itself subdivided into decorated and undecorated) is hardly helpful. It has been truly said that one picture is better than a thousand words, and while Volume 2 provides an enormous amount of illustrative material (most of it presumably taken from published sources) it is difficult to change constantly between the two volumes, especially as the bindings soon become weak with such frequent reference. How much better it would have been if David had omitted much of his super-detailed discussion (or relegated it to an Appendix) and instead concentrated on making his points clear by including many more tables, diagrams and figures in the text. That said, the Appendices are a useful source of reference, once one has learnt how to use them.

There is a rather disconcerting number of typographical errors, probably the result of the author submitting his own camera-ready copy, and some shortcomings (of omission and commission) in the Bibliography.

All in all, this work by Wolfgang David represents a most significant contribution to the study of the Early/Middle Bronze Age in the Carpathian Basin, with ramifications that reach far beyond. Though hard work to use, it illustrates the author's extremely detailed knowledge of his material, and his sound judgements on dating and other matters (even if some of them will raise eyebrows). While I could have wished for an easier read, I will return to the book frequently when consideration of this crucial developmental phase of the European Bronze Age is in question.

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REINHARD JUNG, Kastanas. Ausgrabungen in einem Siedlungshügel der Bronze- und Eisenzeit Makedoniens 1975–1979. Die Drehscheibenkeramik der Schichten 19 bis 11. Mit Beiträgen von Bernhard Hänsel und Bernhard Weninger. *Prähistorische Archäologie in Südosteuropa*, Band 18. Verlag Oetker/Voges, Kiel 2002. ISBN 3-935305-03-6; ISSN 0732-1725. 2 Bände mit 585 Seiten, 82 Abbildungen, 108+XVII Tafeln und einer CD-ROM.

This study describes the Late Bronze Age wheelmade pottery from Kastanas. It consists of a general overview by B. Hänsel, an introduction (Chapter 1), a history of research in Macedonia (Chapter 2), a description of the wares present (Chapter 3), a description of the pottery (Chapter 4) with accompanying catalogue and illustrations in Volume 2 (Chapter 9), a chronology of the different phases (Chapter 5), a comparison with stratigraphy from other sites in Macedonia (Chapter 6) and a conclusion (Chapter 7, also in Greek). An appendix to Volume I by R. Jung and B. Weninger discusses the C-14 dating in relation to the archaeological dating at Kastanas. Apart from the catalogue Chapter 9, Volume II includes a brief catalogue to show the stratigraphic position of every sherd discussed (Chapter 10), a catalogue of comparanda from other sites (Chapter 11) and keys to the decorative types (Chapter 12). A CD-ROM has colour photographs of some of the material (indexed pp.584–585).

In his concise and lucid contribution Hänsel discusses W. A. Heurtley's idea of a Lausitz invasion at the end of the Bronze Age and a break in culture (W. A. HEURTLEY, *Prehistoric Macedonia. An Archaeological Reconnaissance of Greek Macedonia [West of the Struma] in the Neolithic, Bronze, and Early Iron Ages* [Cambridge 1939]) in the light of the evidence from Kastanas. He notes that Levels 14b and 14a are very short in comparison to the other Late Bronze Age levels and that in Levels 14a and 13 buildings were on a different orientation and in different techniques from those of the preceding levels; in Level 13 the use of Mycenaean wheelmade pottery decreases whereas the handmade pottery has many new types suggesting a change in domestic arrangements; botanical and zoological analyses show, especially in Level 13, that different types of vegetables and more meat was eaten than in previous phases; there is also a change from saltwater to freshwater fish in Level 14a. Hänsel agrees with Heurtley that new people came from south Europe; there is evidence for them in Levels 14a–13 in early LHIII C; they seem to have integrated with the remaining local people.

A brief introduction by Jung describes the layout of the book; it includes a concordance of modern Greek place names with earlier names and different spellings of names. The history of research of Mycenaean and Protogeometric pottery in Macedonia is outlined in Chapter 2. Chapter 3 describes the different wares of the wheelmade pottery and the results of petrographic and chemical analyses. Petrographic analysis isolated 34 Mycenaean and Protogeometric wares which are classified as painted M 1a–26, monochrome MF 1–11 and unpainted MU 1–8. The Grey Ware was divided into five wares. 82 sherds were analysed chemically at Bonn using Neutron Activation Analysis (NAA). NAA isolated imports from other areas of Greece; a few Mycenaean imports came from the Argolid (Mycenae/Berhati); one group might be from Thessaly, but lack of publication and of NAA analysis from that area allow no firm conclusions; several workshops in central Macedonia seem to have been producing Mycenaean pottery, including two in the neighbourhood of Kastanas. The results are included in the relevant pottery catalogue entries.

The core of the book is Chapter 4 which, together with Chapter 9, describes the pottery. Jung lays out his parameters for defining the pottery (pp. 65–68). He divides it into four groups: linear and painted, monochrome, unpainted and Grey Ware and within the four groups into different wares. More than half the pottery contains silver mica; there is no gold mica. There is generally no slip and the paint is matt. Jung uses the Tiryns system of pottery phases rather than that of Mycenae so LHIII B1 is divided into LHIII B Early and Middle and LHIII B2 into LHIII B Developed and End. He prefers not to use the term Transitional LHIII B2–LHIII C Early but, while agreeing with the definition of the phase (except in the case of Nichoria), to call it LHIII C Early. As Jung points out (pp. 67–68) this is more a difference of terminology than of content.

Salient characteristics of the pottery: the deep bowl appears in Level 15 with linear and with monochrome interior; that with linear interior generally has two interior bands on the middle or lower body; all the bowls of this class carry a pattern; there are no purely linear examples. The most popular decoration on the deep bowl is the single wavy band; it is reduplicated in Level 12. Streamers is the second most popular motif followed by tassel; the streamers hang from the rim band instead of rising from the belly band, as is usual in other areas. The deep bowl type with linear interior goes out of use in Level 12, that with monochrome interior reaches its acme in Level 12 and continues into Level 11. In Level 11 wavy bands are replaced by streamers. "Monochrome" deep bowls appear in Level 12; the type with reserved interior lip band, reserved lower body and two medium bands below the monochrome field appears in Level 11. The carinated cup FS 240 is in use in Levels 12 and 11; it

is monochrome. The linear shallow angular bowl FS 295 appears in Level 13. The stemmed bowl is in use from Level 16 to Level 12. It is useful to have tables for each shape showing its popularity in the different levels, but it would have been helpful if the life span of the shapes had been tabulated, as, for example, M. POPHAM/E. MILBURN, *The Late Helladic III C Pottery of Xeropolis (Lefkandi). A Summary*. *Annual of the British School at Athens* 66, 1971, 350–352 figs. 9–14. A single table is also needed to compare the lifespan of all the shapes.

Some remarks on the catalogue: p. 69: to the list of early Mycenaean monochrome goblets add Korakou East Alley Levels IX, X, XI (P. A. MOUNTJOY, *Regional Mycenaean Decorated Pottery* [Rahden/Westf. 1999], *Korinthia* nos. 30–34); p. 117 and Kat. 123: semi-circles linked by chevron is also a popular motif at Delphi in Phocis (IBID. *Phocis* nos. 171–74, 218–19 dated stylistically to LH III C Early); p. 103 fn. 404: a deep bowl P. A. MOUNTJOY, *Mycenaean Decorated Pottery* [Gothenberg 1986] fig. 254.5 is cited as dated by the reviewer to LH III C Late and then in EAD., *Jahrb. DAI* 103, 1988, 15 to Submycenaean. The reproduction of the bowl EAD. (1986 op.cit.) fig. 254 is a printer's error; the entry for it p. 191.5 reads "vacat". This is pointed out in the Errata to MOUNTJOY 1986. Kat. 29: as drawn the motif resembles that on a vase from Orchomenos (EAD., *Orchomenos V. Mycenaean Pottery from Orchomenos, Eutresis and other Boeotian Sites* [München 1983] 44 fig. 16.347). Kat. 132 is called a kylix, but the profile and decoration suggest the piece should be the one-handled bowl FS 283 (see EAD. 1999 op.cit. *Attica* fig. 195 nos. 197–201 for a selection of different rim types and motifs). Kat 407 is similar to a vessel from Aitolia (IBID. fig. 321 no. 39). The Aitolian vase has round handles not strap handles, but the shape with long everted rim and deep bowl is close to Kat. 407; it has a linear exterior, monochrome interior and decoration on the rim.

The description of the pottery concludes with a section on the unpainted and cooking pot and on the Grey Ware and handmade ware. None are common at Kastanas. Jung suggests that the Grey Ware came to Kastanas from south Greece, not from Troy.

The catalogue has a wealth of detail, clear drawings and a useful table to show the wares. In his discussion of the pottery Jung has made a major contribution to Bronze Age research in Macedonia. However, there are problems, not with the content, but with the presentation of the material:

- 1) Although Jung uses the Furumark shape numbers (called here FT = Furumark Type) he does not always use the Furumark motif numbers on the grounds that most of the Kastanas motifs are so local they do not fit into Furumark's scheme of motifs. Instead a numerical definition of motifs, based on that of Ch. Podzuweit, is presented at the end of the catalogue Vol. II pp. 580–84 (but this reference is not given p. 66 where the key is mentioned); the definition would have been better placed at the beginning of the catalogue. Each definition receives a code number so that the definitions consist entirely of numerals, such as, for example, 1.2.4.2.1 or 1.6.2.4. These code numbers are then used throughout the book including the tables of the decorative motifs used on each shape. The reader has constantly to consult pp. 580–84 to see what is meant. Furthermore, since no illustrations of the motifs are presented with the definitions, but only a text figure reference, the reader then has to consult the text figures before finally ascertaining which motif is referred to. The Kastanas motifs are indeed local variants, but they are variants on only three main motifs and these are all Furumark motifs: wavy line FM 53, streamers FM 62 and tassel FM 72. The FM could have been used as a general heading for each motif under which Jung could have listed his variants. The FM could then have been included in the table of motifs for each vessel, for example p. 142 kylix decoration, together with Jung's numbers. The reader would then have had an immediate idea of what is referred to.

- 2) Within the different Furumark shapes Jung combines variants of the same shape, such as the stemmed bowl FS 304/305 on the grounds, often well founded, that there is almost no difference between the variants. However, Furumark does use a chronological division, for example A. FURUMARK, *Mycenaean Pottery: Analysis and Classification* [Stockholm 1941] 638 FS 304 LHIII A1–2, FS 305 LHIII B–C1e. To combine, for example, FS 304/305, suggests that it is uncertain to which phase a piece belongs; for clarity the chronological division should be kept.
- 3) Throughout the book Jung has drawn extensively on Ch. Podzuweit's study of the LHIII C Tiryns material in order to define, compare and date shapes and motifs at Kastanas, but, as Podzuweit's 1992 Habilitation is still unpublished, the reader has no real idea of what the parallels consist and how they are located stratigraphically.
- 4) Unfortunately, throughout his study Jung has used G. Schönfeld's dating of the Terrace Houses outside the Citadel at Mycenae (G. SCHÖNFELD, *Ausgrabungen in Tiryns 1982/83. Bericht zur bemalten mykenischen Keramik. Die Phasen SHIII A–Spät bis SHIII B–Mitte. Arch. Anz. 1988, 163 Table 4*) for comparative purposes. Schönfeld has dated these LHIII A2 deposits to LHIII B Early, as he has not understood that they comprise rubbish from the LHIII A2 houses which stood here; they are not foundation deposits contemporary with the LHIII B houses. Having "redated" the deposits Schönfeld has then used them to date material at Tiryns. This has been pointed out by MOUNTJOY 1999 op. cit. 29 and fn.70.
- 5) In discussing deep bowls Jung has kept the terminology used by Ch. Podzuweit of Group A for bowls with a linear interior and Group B for those with a monochrome interior (p.77). This is extremely confusing as the terms Group A and Group B were assigned in 1965 to LHIII B2 bowls at Mycenae, Group A being a continuation of the LHIII B1 type with linear interior and Group B referring to a special type of bowl of large size with monochrome interior, 3 cm deep rim band and two medium belly bands only found in LHIII B2 (N. VERDELIS/E. AND D. FRENCH, *Tiryns, Mukenaiké Epichosis exothen tou dutikou Teichos tes Akropoleos. Arch. Deltion 20A, 1965, 139–143*). The Group A deep bowl continues in LHIII C and may then have a linear or a monochrome interior. The bowls Jung is separating into Groups A and B are all Group A in the already existing terminology. While agreeing with Jung that a terminology for a division of linear and monochrome interiors would be useful, this reviewer would rather that different names had been chosen; the present ones will lead to decades of confusion.
- 6) The term monochrome deep bowls is given (p.97) to deep bowls which have large areas of monochrome but which also carry a pattern. This is misleading as a real monochrome deep bowl is painted all over in and out (MOUNTJOY 1986 op. cit. fig.191); variants may have a reserved base or reserved bands on the body (IBID. fig.230), but by definition the monochrome deep bowl does not carry patterned decoration. It would be better to refer to the type with patterned decoration, for example Kat Nos. 272, 274, as darkground deep bowls.

Chapter 5 deals with the relative dating of the stratigraphy concluding with a chronological table (p.228 fig.80). The dating given by CH. PODZUWEIT (*Spätmykenische Keramik von Kastanas. Jahrb. RGZM 26, 1979 [1982] 203–223*) is corrected. Useful plans for each level show the distribution of the pottery in the settlement in each phase (Pls.75–108). Dating is difficult owing to the local character of the pottery and to the lack of excavated/published material of the LHIII C–PG phases from areas between Macedonia and south Greece, apart

from Kalapodi and Volos. Jung considers the pottery statistically in its context. The earliest Mycenaean pottery appears in Level 18, but it did not come into general use until Level 16, which is dated LHIII A late to LHIII B middle. One vase from this level is shown by NAA to be an import from the Argolid (Mycenae/Berhati). Level 15 dates to the second half of LHIII B. The deep bowl is now popular and appears with linear or monochrome interior. By Level 14b at the latest most of the Mycenaean pottery was produced in north Greek-Macedonian workshops. The destruction of the Level 14b settlement, perhaps due to earthquake, provides a good assemblage of pottery. The stemmed bowl was a very popular shape in this phase, as also the deep bowl with linear interior decorated with wavy band on the exterior. The linear shallow angular bowl FS 295 appears in this phase. Level 14b is dated to LHIII C Early. Level 14a produced very little pottery and so is difficult to date; it is probably LHIII C Early, but LHIII C Middle (developed) cannot be ruled out. This level ended in a destruction which may have been the result of a hostile attack. Level 13 produced almost no restorable vases. During this phase the Macedonian workshops changed from the well-levigated ware M18 to the less-well levigated ware M1a. The pottery dates to LHIII C Middle (developed and advanced). The deep bowl is the most popular shape. Level 12 produced many restorable vessels, partly due to the burnt destruction with which it ended and partly to the fact that not much levelling for the Level 11 buildings took place. The deep bowl with monochrome interior is now the most common open shape; many new decorative motifs were used. Grey Ware appears now. The level is difficult to date as it lasted from LHIII C Middle (advanced) to EPG. In EPG vases with compass drawn circles appear; they seem to be locally produced. A krater decorated with ship, also local according to NAA, is the earliest Mycenaean vessel with pictorial decoration from Macedonia. There is less material from Level 11 due to the destruction of the settlement which seems to have been accompanied by plundering. The deep bowl with linear interior and the stemmed bowl are now no longer extant, but the deep bowl with monochrome interior is more popular. Compass drawn semi-circles are now introduced. Level 11 is dated to MPG.

Chapter 6 provides a useful gazetteer of other LBA and Early Iron Age sites in Macedonia and attempts to date their stratigraphy on the basis of the Kastanas chronology. Of the 13 sites considered in central and eastern Macedonia Axiochori, Assiros, Thessaloniki Toumba, Ayios Mamas and Kastri on Thasos allow good comparisons to be drawn.

This is an excellent study and an important contribution to research on the development of Mycenaean pottery in Macedonia, but the reliance on numerical definitions to describe the decoration of the pottery gives rise to a presentation which is not reader friendly.

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