BERNHARD HÄNSEL/ JOANNIS ASLANIS, Das prähistorische Olynth. Ausgrabungen in der Toumba Agios Mamas 1994–1996. Die Grabung und der Baubefund. With contributions by Bernhard Hänsel, Barbara Horejs, Reinhard Jung, Bernhard Weninger, Maria Pappá and Angeliki Strati. Prähistorische Archäologie in Südosteuropa volume 23. Marie Leidorf, Rahden/Westf. 2010. €74,80. ISBN 978-3-89646-594-8; ISSN 0723-1725. 462 pages with 181 figures, 22 plates and 8 supplements.

The twin-peaked toumba (settlement mound) near the modern village of Agios Mamas rises 20 m above sea level at the north end of the Toronean Gulf in Chalkidiki (Central Macedonia) in northern Greece. Located 3 km from the modern shoreline, it once lay at the mouth of the Olynthios river, and was abandoned when alluvial deposits trapped it far from the coast. Occupied from ca. 3000 BC until the Early Iron Age, it was likely the Bronze Age locale of Olynthus (site of a Neolithic mound and classical city: D. M. ROBINSON [Hrsg.], Excavations at Olynthus [Baltimore 1929– 1952]). First explored by Walter Heurtley in 1928, it attracted new excavations from 1994-1996 by the German Archaeological Institute in Athens, under the same team that excavated prehistoric Kastanas on the Axios river: Bernhard Hänsel (Freie Universität Berlin) and Ioannis Aslanis (Center for Greek and Roman Antiquities, National Research Foundation, Greece). Goals of the new project included levels of the Middle Bronze Age (missing at Kastanas) and Early Iron Age, periods important for recent discoveries in Chalkidiki. Several volumes are already published, on the handmade pottery of the Late Bronze Age (Schichten 13-1; B. HOREJS, Das prähistorische Olynth: Ausgrabungen in der Toumba Agios Mamas 1994–1996. Teil III. Prähist. Arch. Südosteuropa 21 [Rahden 2007]) and the flora and fauna (C. BECKER/H. KROLL, Das prähistorische Olynth. Ausgrabungen in der Toumba Agios Mamas 1994–1996. Ernährung und Rohstoffnutzung im Wandel. Prähist. Arch. Südosteuropa 22 [Rahden 2008]); future volumes will present the handmade pottery of the Middle Bronze Age (Schichten 18-14, by Aslanis), wheelmade pottery of the Late Bronze Age (Reinhard Jung), and the minor objects (Emily Schalk and Otto Thiel). While separation of wheel- and handmade wares follows a conventional division of ceramics at Kastanas and elsewhere, both types of pottery appear in some levels of the Middle and Late Bronze Age, and it was a pity not to have included wheelmade and handmade Minyan wares, in particular, in the same study.

This volume presents the history of excavation, stratigraphy (based on architectural building phases, or Baubefunde), and absolute chronology: layout and documentation follow the corresponding volume on Kastanas (B. HÄNSEL, Kastanas. Die Grabung und der Baubefund. Prähist. Arch. Südosteuropa 7 [Berlin 1989]). The whole volume is bilingual, with parallel texts in Greek and German, two leading languages for the prehistory of southeast Europe, and reflects close collaboration between the chief authors. Illustrations (numbered continuously in chapters, separately in appendices) are of high quality and include many color photographs, with sections and plans of all trenches in color on four large folded sheets. A special bonus is a report by Maria Pappá on the Early Bronze Age cemetery found directly across the modern road northwest of the mound in salvage work, with an appendix on its scant human remains by Sevasti Triantaphyllou, and a report on the remains of a Byzantine settlement atop the mound (by Angeliki Strati). Excavations lasted three brief seasons and ended after 1996 with changes in Greek archaeological authorities and decisions (the volume concludes with a plea for future work) which cost the project some of its original goals (a full history of the settlement, geophysical prospection, etc.). Nor could standing structures or walls be removed to expose levels prior to the second millennium. Erosion left Protogeometric sherds on the slopes, yet the latest stratified material dates to Late Helladic IIIC, indicating loss of the uppermost levels; animal burrows and medieval disturbance (deep pits reached Schicht 16) did further damage. It is therefore impressive how much information emerged from a small sector on the top and sides of the mound. Three stepped trenches reached 8 m below the upper surface over  $20 \times 30$  m, removing ca. 230 m<sup>3</sup> of deposits (less than 1 % of the mound) (pp. 36 fig. 9; 45 fig. 19).

Excavation followed methods at Kastanas, combining stratigraphic excavation and artificial levels, described and illustrated in detail in Chapter 3 and the final summary. A total of 9,300 Fundkomplexe were separated and identified, of which 65 % are prehistoric (others are medieval or disturbed). Nearly every level was destroyed by fire, but tidy habits left few artifacts *in situ* after Schicht 18. Details of urbanism – streets, open areas – are scarce; Toumba Thessaloniki offers a more complete plan of houses and streets in second-millennium northern Greece (ST. ANDREOU/ K. EUKLEIDOU, H  $\pi\alpha\nu\epsilon\pi\mu\sigma\kappa\eta\phi\eta\sigma\tau\eta$  To $\dot{\nu}\mu\pi\alpha$  Θεσσα $\lambda$ ο $\nu$ ( $\kappa$ , AEMΘ 22, 2008 [2012] 323–328; ST. ANDREOU, Northern Aegean. In: E. H. Cline [ed.], The Oxford Handbook of the Bronze Age Aegean [ca. 3000–1000 BC] [Oxford 2010] 643–659). Meanwhile, this volume displays how artifacts were used and found, building practices evolved over 1,000 years, and local communities linked to a wider world from the Balkans to the Aegean.

Eighteen strata from the Early to Middle Bronze Age transition (ca. 2000 BC) until the Protogeometric abandonment (ca. 1000 BC) represent six phases of continuous occupation (HOREJS 2007; I. ASLANIS, Aghios Mamas Neas Olynthou (Prehistoric Olynth): a Peripheral Settlement in the Middle Helladic World. The Data from Minyan Ware. In: 20 Years AEMTh [Thessaloniki 2009] 31–40). Readers of the Kastanas volumes will recognize the assembly of ceramic types (for Schicht 18 pp. 96–102 figs. 44–50), reconstructed cutaway views of houses, full contextual information for each structure, with artifact distributions in plans. No complete house or street could be uncovered under the conditions enumerated above, but results are still a model for understanding the prehistoric domestic environment in northern Greece during the second millennium BC. Samples of fired clay impressed with reeds, straw, and other plants are illustrated, as are postholes and the burned wood that provided samples for radiocarbon dating. The volume on plants and animals (C. BECKER/ H. KROLL 2008) included a full, integrated interpretation of the natural finds with sections on storage, slaughter, food preparation, and domestic industries (Hausbau) and is an essential supplement to the one under review, identifying plants mixed with clay, types of wood, etc.

In the first two phases of the settlement (Schichten 18–14, ca. 2000–1500 BC), house walls and roofs were largely built of such clay and plant materials, with wooden posts as vertical supports. Phase I, consisting entirely of Schicht 18, the transition from Early to Middle Bronze Age, ended in a dramatic destruction by fire (after an earthquake?) that left parts of three one-room houses full of broken storage and cooking pots and burned organic materials. The excavators equate this phase with the same dense occupation (also destroyed by fire) in Heurtley's Sondage S on the east side of the tell, date it by <sup>14</sup>C samples to 2010–1960 BC, and compare the pottery in date and style to Kastanas I (Schicht 22b); over the destruction, fine clay was leveled and the site rebuilt and reoccupied.

Schicht 17 introduces Phase II (the beginning of the Middle Bronze Age, after 2000 BC) with the first straw-thickened clay and white plaster for house walls, stone settings for unknown purposes, clay platforms (working surfaces?) and infant burials in open areas. The next Schicht brings substantial changes in orientation and construction: three structures with walls built of wooden posts and clay (pisé) were uncovered, and several posts are set into base-like clay footings. One building (Haus 1, ca.  $5 \times 10$  m) is identified as the first "corridor-house" in northern Greece but its narrow lateral "corridors" are more likely for storage or stairs leading to a flat roof, as in the other houses of the same level (one with wooden planks). While the first imported pottery (Red Minyan ware) appears in this level, lack of carbon samples (despite destruction by fire) mean its duration can only be estimated (at 1960–1910 BC) from adjacent levels. Schicht 15 maintains this dramatic shift in layout and architecture in two large multi-roomed building complexes (one built over a structure from Schicht 16) separated by a large open area level; its few finds include the first bronze artifacts (a knife fragment) and slag, signs of metalworking at the site. After the short life and destruction by fire of Schicht 14, dramatic innovations in Schicht 13 mark the latest levels of the Middle Bronze Age and its transition to the Late Bronze Age, with denser occupation and new building techniques: for the first time, walls were built of sun-dried mud bricks on stone footings (of irregular river cobbles), stabilized by wooden posts (this innovation begins in the Early Bronze Age at Torone: S. P. MORRIS, Prehistoric Torone: A Bronze Age Emporion in the Northern Aegean. Preliminary report on the Lekythos excavations 1986 and 1988–1990. Mediterranean Arch. 22/23, 2009/10, 1–68). This transitional Middle to Late Bronze Age phase (Shaft Grave period in southern Greece, or MH III–LH I) shows close contact with southern Greece (in Grey Minyan pottery and its imitations) and the Balkans (an imported Vatin culture vessel: HOREJS 2007, 287–289), lasting into Schichten 12–10. Schicht 12 has larger, multi-roomed houses, rebuilt in Schicht 11 after a fire, with three infant burials; in Schicht 10 wooden posts disappear in larger buildings made of mud bricks on stone walls (one up to 4–5 courses); an unusual bronze chisel suggests, like the marble idol in Schicht 16, a foundation deposit. Schicht 9 is but a series of deposits, with several unique circles of stones (60–70 cm in diameter).

Levels of the latest Bronze Age (Phases IV-V, Schichten 7-2) were heavily disturbed by Byzantine activity, and repeated house plans and streets with scant material could not be dated closely without wheelmade (Mycenaean) decorated pottery. Schicht 8 (Late Helladic I?) exposed a relatively large, multi-room house, and the first certifiable "streets" (compacted grey surfaces with gravel), whose form and use lasted until Schicht 1. During these phases, Minyan pottery disappears in favor of the distinctive local handmade matt-painted ware, a form of "besseres Geschirr" (?). Innovations in building technique and room function, signs of greater complexity, are clear in this phase, with separate rooms serving storage, cooking, and living activities. Schicht 7 can be closely dated to Late Helladic I-II by Mycenaean sherds, and offers the first preserved house entrance from the street, and a corridor paved with mudbricks between 2 rooms of the same house. Schicht 6 follows it closely in house plans and streets, and belongs to the end of LH II or early LH IIIA1, Schicht 5 to a later phase of LH IIIA; Schicht 4 shows the first use of wood in a threshold. The next two Schichten (3-2) are both post-palatial, in southern Greek terms (LH IIIB-C Fortgeschritten, and LH IIIC Fortgeschritten bis Spät). As the mound narrows towards its upper surface, exposed areas shrink drastically and were too disturbed for close dating, thus Phase VI (Schichten 1+0) includes both the latest Mycenaean (IIIC) and some Protogeometric material as well. Most interesting are traces of stone circles in sunken areas atop the mound in this final phase: if not medieval, they deserve comparison to similar installations after the end of the Bronze Age at Troy, Naxos, Asine, etc. (C. CHABOT ASLAN, A place of burning. Hero or ancestor cult at Troy. Hesperia 80, 2011, 381-429). In general, phases of the Late Bronze Age show remarkable continuity and consistency of lifestyles, during a period when southern Greece sees the rise and fall of monumental palaces. An altered way of life may have been indirectly stimulated by palatial developments in southern Greece, yet it outlived their dramatic decline at the end of the Bronze Age.

A final chapter (5) is helpful in summarizing results for each level, combining them into a narrative which synthesizes six phases of occupation with associated pottery, small finds, plants and animals, and <sup>14</sup>C dates and comparing the site to local prehistoric settlements (Toumba Thessaloniki, Arkhontiko, Assiros, and Torone). Last but not least, the top of the mound attracted a Late Byzantine church, settlement, and burials (all highly disturbed) in the 12<sup>th</sup>-14<sup>th</sup> centuries AD. Historical documents make this the *metochi* of Agios Giorgios belonging to the Vatopedi monastery of Mount Athos; it once included a tower, visible until 1874.

An important dimension of this volume involves the absolute chronology of the mound, inhabited during a critical period of Aegean prehistory. Figure 22 (repeated as Table 6) synchronizes phases with Kastanas I–V (Schichten 12–22), and coordinates them with absolute, calibrated dates. In a

dense appendix of 80 pages, Weninger, Hänsel, Horejs and Jung evaluate dates from 31 carbonized samples of wood, grains, legumes, and fruits, synchronize them with stylistic chronologies, and discuss major scientific problems ("high" vs. "low" chronology, dating the Thera eruption, etc.). This section will attract close attention from Aegean specialists for its contribution to the chronology of the Late Bronze Age and preview of the Mycenaean pottery. For the third and fourth time in this volume, readers face a level-by-level analysis, this time of datable ceramic finds (from levels 13-1, a review of HOREJS 2007 and preview of the wheelmade pottery volume), then of organic samples analyzed by Schicht. Thanks to ancient fires and short-lived species, as well as imported pottery (Minyan, Mycenaean), most levels at Agios Mamas produced datable material. However, calibrating sample dates with existing (often "flat") radiocarbon curves (INTCAL04) and then estimating the duration of each Schicht and phase was challenging: dates from certain levels simply fall too far from the curve, despite best efforts at "wiggle matching", and there are still discrepancies between some historical / stylistic and <sup>14</sup>C dates. Readers are offered three separate "age-models" of dates based on radiometric, estimated life of levels (average: 50 years), or historical-archaeological (ceramic) calculations (Tables 2-4, Figures 14-15). The "old wood" problem (checked here by chi-square tests) first surfaced in serious discrepancies between scientific and stylistic dates at Kastanas (HÄNSEL 1989), was re-visited by R. JUNG/B. WENINGER, Zur Realität der Diskrepanz zwischen den kalibrierten 14C-Daten und der historisch-archäologischen Datierung in Kastanas. In: R. Jung, Kastanas. Die Drehscheibenkeramik der Schichten 19-11. Prähist. Arch. Südosteuropa 18 (Kiel 2002) 281-298, then adjusted by corrective dates from western Europe (B. WENINGER/R. JUNG, Absolute Chronology of the End of the Aegean Bronze Age. In: S. Deger-Jalkotzy / A. Elisabeth Bächle [eds], LH III C Chronology and Synchronisms III: LH III C Late and the Transition to the Early Iron Age. Proc. internat. workshop Vienna 2007. Österreichische Akad. Wiss. Phil.-Hist. Kl. Denkschr. 384 = Veröff. Mykenische Komm. 30 [Wien 2009] pp. 373-416, here p. 364; but see J. K. PAPADOPOULOS ET AL., Once More with Feeling: Jeremy Rutter's Plea for the Abandonment of the Term Submycenaean Revisited. In: W. Gauss et al. [eds], Our Cups Are Full: Pottery and Society in the Aegean Bronze Age [Oxford 2011] 187–202). A new date (animal bone) from Kastanas (Schicht 19) matches Phase III at Prehistoric Olynth - but which Schicht? The authors conclude that this stratified settlement offers fixed points for Balkan prehistory but few solutions for Aegean chronology, and promise a fuller coordination of stratigraphic, stylistic and chronological strata in the future (perhaps in the volume on wheelmade pottery?).

The cemetery of the Early Bronze Age (first reported by Photios Petsas in 1966) was systematically explored in 1992, when disturbed by new telephone cables. Fourteen Early Bronze Age graves were recovered, along with 19 Roman ones (dated by coins to the  $2^{nd}-3^{rd}$  c. AD); scattered surface finds indicate many more, both prehistoric and later. Only five had skeletons partially preserved, most of them young adult (adolescents), thus no full demography was possible. Most of the Bronze Age interments (all single burials) were *enchytrismoi* (jar burials) set inside broken Kammstrich vessels (large, striated containers whose surface treatment is described as decoration but was originally a method of making more porous water coolers: M. KESSISOGLOU ET AL.,  $\Sigma \nu \mu \beta 0 \lambda \eta$  στήν έρευνα της τεχνολογίας της Μακεδονικής κεραμεικής. Πρώμη εποχή Χαλκού. Anthropologika 7, 1985, 7–16), along with a single infant cremation and several cist inhumations. These early graves suggest that continued excavation of the Toumba would have reached contemporary levels in the mound and west of it; the Early Bronze Age settlement at Agios Mamas uncovered in Heurtley's "pits" (1 × 2 m trenches) included the earliest pottery kiln in Greece and Neolithic levels (cf. the marble figurine re-buried in the foundation trench for a house wall in Schicht 16 (pp. 130–131 figs. 68–69).

Small finds in the cemetery include jewellery such as bronze (ear)rings from Grave 21 as well as the striking contents of a single burial (Grave 6, probably a female): next to distinctive vessels (one-handled cup, jug with cutaway neck, and jar with lugs), excavators found a gold foil pendant and

73 faience beads (plus fragments) from a necklace with seven perforated carnivore (dog or wolf) canines as pendants. The faience beads are the earliest examples on the Greek mainland (known in pre-palatial Crete) and recall the single, more elaborately shaped glass paste bead found in the settlement by Heurtley (Pl. 17,3–4). Such exotica, signs of contact with the glass-producing Near East, appear with local pottery and animal trophies in the same grave, a signal of converging cultures in northern Greece. The gold bead recalls northern mineral riches such as the placer deposits of the Gallikos river or nearby Metangisti, and later Bronze Age gold objects and tools (crucibles, etc.) from Toumba Thessaloniki and Kastanas (M. VAVELIDIS / S. ANDREOU, Gold and gold working in Late Bronze Age Northern Greece. Naturwiss. 95, 2008, 361–366.).

Hänsel's work at several sites (Stationen der Bronzezeit zwischen Griechenland und Mitteleuropa. Ber. RGK 83, 2002, 69–97) marks the second millennium BC for the emergence of novel, linked forms of social and communal life between the Balkans and the Aegean. Agios Mamas epitomizes this interface between inland European mounds built of clay and wood, and coastal communities using stone foundations and mud bricks, with strong connections both south and north (e. g. the bronze chisel from Schicht 10). Early occupants of this coastal mound belonged to the first generation to join the mineral-driven maritime networks of the Early Bronze Age spanning Aegean and Balkans, and left a lasting landmark in the prehistory of south-eastern Europe. In offering us their early burials and later homes, this volume is an elegant tribute to these important developments in northern Greek prehistory and to the guidance of the late Ioulia Vokotopoulou, under whose authority they were discovered.

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JENS MARTIN, Die Bronzegefäße in Mecklenburg-Vorpommern, Brandenburg, Berlin, Sachsen-Anhalt, Thüringen und Sachsen. Prähistorische Bronzefunde Abteilung II Band 16. Franz Steiner, Stuttgart 2009. € 98,00. ISBN 978-3-515-09388-0. 198 Seiten mit 7 Abbildungen, 2 Tabellen, 59 Tafeln und 3 Beilagen.

Metallgefäße der Bronze- und älteren Eisenzeit in Ostdeutschland wurden von Jens Martin im Rahmen einer Dissertation 1999 bearbeitet. Die Veröffentlichung in der Reihe "Prähistorische Bronzefunde" schließt die Lücke zwischen der Publikation der polnischen (M. GEDL, Die Bronzegefäße in Polen. PBF II 15 [Stuttgart 2001]), der westdeutschen (CH. JACOB, Metallgefäße der Bronze- und Hallstattzeit in Nordwest-, West- und Süddeutschland. PBF II 9 [Stuttgart 1995]) sowie der böhmischen Metallgefäße (O. KYTLICOVÁ, Die Bronzegefäße in Böhmen. PBF II 12 [Stuttgart 1991]). Der Katalogteil der 220 Fundstücke wird ergänzt durch ein Kapitel "Zur Funktion der Metallgefäße im Arbeitsgebiet" sowie Anhängen zu lateinischen Texten (Anhang 1), Listen zu drei Tassentypen (Anhang 2 mit Beilagen 1–3), Metallanalysen der Bronzegefäße im Arbeitsgebiet (Anhang 3) und Angaben der Volumina der Gefäße (Anhang 4). Neben getriebenen Gefäßen aus Bronze sind auch Goldgefäße und bronzene Blashörner, aber keine Gürteldosen und Bronzebecken aufgenommen. Die ersten 23 Katalognummern behandeln gegossene Bronzegefäße. Am Ende stehen zwölf Goldgefäße. Eine Besonderheit ist eine mit Kupferzwecken verzierte Tonschale (Nr. 220).

Auf die Verbreitungskarte der erfassten Metallgefäße (Taf. 55) folgen acht halbseitige Karten zur Verbreitung mehrerer Typen. Martin kartiert im Gegensatz zu anderen Arbeiten über Metallgefäße die Typen im Arbeitsgebiet zeitlich getrennt. Gegenüber anderen PBF-Bänden wurde auf ein Sach-