PREHISTORY

J.A. MacGillivray and L.H. Sackett, with contributions by J.N. Bottema-Mac Gillavry, T.F. Cunningham, C. Doherty, J.M. Driessen, D. Evely, P. Jerome, O.H. Krzyszkowska, D. Mylona, D. Reese, J. Russell, A. Sarpaki, S. Wall-Crowther, P. Westlake and J. G. Younger, *Palaikastro Building I*. British School at Athens Supplementary Volume 48. pp. 614; col. frontispiece; 78 B/W plates; 280 B/W and col. figures (1 fold-out); 6 tables and charts (1 fold-out). London: British School at Athens, 2019. ISBN 978-0-904887-70-9, hardcover £165.

C. Knappett and T. Cunningham, with contributions by D. Evely, P. Westlake and M. Bichler, *Palaikastro Block M: the Proto- and Neopalatial town.* British School at Athens Supplementary Volume 47. pp. 338; 36 B/W and 1 col. plates; 171 B/W figures (2 fold-outs); 6 tables and charts. London: British School at Athens, 2012. ISBN 978-0-904887-65-5, hardcover £115.

This review includes the older volume, despite the length of time which has elapsed since publication: its companion volume containing scientific reports is still awaited. Documenting overlapping periods of occupation and proximate blocks within this complex ancient town, and published as adjacent BSA Supplementary Volumes, at the latter's typically high standard of printing, editing and layout, these excavation reports can reasonably be reviewed together, picking out some issues they jointly elucidate. These include the state of research on the emergence of 'palatial' socioeconomic structures and material culture; the importance and nature of the Palaikastro town's functioning in the LM III period (until recently thought to be highly limited); environmental conditions and subsistence practices in Bronze Age Crete; and the limits of traditional excavation methods in complex stratified sites in the east Mediterranean. L.H. Sackett spent many seasons enjoying and excavating Palaikastro, and the *Building 1* volume is a fitting commemoration of his work at the site, bringing together the results of his and J.A. MacGillivray's excavations spanning 1986-2003 (the 'third campaign'): in this, Building 1 was excavated 1986-9 and Block M over five years between 1990 and 2003. A wide variety of workers and scholars participated in this long campaign and were diversely involved in publication.

Building 1 was a single building dating to LM IB-LM IIIB with a forebear structure(s) dating MM II-LMIA (not covering the entire area of the later building). LM IB is the major preserved period of occupation, with successor occupations in LM III following a destruction at its end. In contrast, Block M's three buildings (likely peaking in MM IIA-IIIB; first building activity here appears to be EM II) – were abandoned within an enclosure wall in LM IA-IB, despite this being a generally prosperous period for the town (the authors of *Block M* suggest this neglect was perhaps due to the block's culturally Knossos-linked heritage of ownership/influence). Building 1 covered c. 15 x 15m in area at its maximum LM IB extent, approximately the same size as the main 'Southeast' building in Block M, indicating the scale of private building construction in the town's late protopalatial expansion. The whole of Block M was previously termed Building 6, only later being seen to comprise the main (Southeast) building with two lesser structures associated. Both this building and Building 1 to its north-east ultimately incorporated many 'palatial' style features including polychrome-plastered and painted walls and floors, central court type areas (Block M Southeast Building), *polythyra* and ashlar and other specialised masonry, as well as pipes and roof drainage indicating high levels of investment in an accepted model of prestige developing from MM IB. Wall paintings appear in Block M in the MMIII-LMIB periods and are systematically studied by Westlake (Chapter 9; see also Westlake in *Building 1*, Chapter 6); the potter's wheel is in use from MMIB typically in special types of fineware such as cups, as Knappett's expert studies in *Block M* (Chapters 3-4) highlight.

For Building 1, the architecture as a whole and the MM II-LM IA stratigraphy and pottery preceding the main preserved Neopalatial building phase, are dealt with in expert and sensitive fashion by Driessen (Chapter 2) and MacGillivray and Sackett (Chapter 2) respectively, though it is worth noting that nowhere in the two volumes is the widely accepted standard of excavation narrative to frame stratigraphic description used: stratigraphy is presented from the base layers up and the nature and process of excavation are hard to access through the text. In most stratigraphic chapters except Cunningham and Sackett's in *Building 1* (Chapter 4, 'Postpalatial stratigraphy and contexts') text is interspersed with clear phase plans of the architecture and selected

contexts, though plans of all contexts are not shown, suggesting few were delimited and recorded in the field. In the case above, plans appear in a separate section and are highly schematic, including sketch plans: scales on each plan and clear conventions would be helpful here. There is close reference to and illustration of dating pottery in the stratigraphy of *Block M*, prefaced by a detailed pottery typology and showcasing Knappett's expertise and interest in the whole EM-MM period, especially MMIII, here recognised as a long and complex period; see Chapters 2 ('Architecture and stratigraphy'); 3 ('Block M pottery typology') and 4 ('Block M in the Prepalatial and Protopalatial periods'). The pottery discussion is beautifully illustrated by Goddard, and masterful in its ability to draw comparisons across Cretan sites of the same period. Knappett highlights a likely early date of adoption of palatial styles in building, manufacture and consumption (potentially from MMII, and definitely from MM IIIA) and the degree to which this indicates contact with the rest of Crete including Knossos. He suggests this early association influenced the building's function and treatment long-term. At the same time, pottery imports from Knossos and central Crete in this period are limited at Palaikastro, and there are specific local variations in style: the main imports when they occur from MMII are linked to the east Cretan Mirabello region, which exported widely at this time. Knappett repeatedly notes the need to undertake petrographic studies on the protopalatial assemblage to establish the range of local clay sources and how they were used.

After a destruction attributed to a seismic event in MMIII, matching patterns observed elsewhere in Crete, Block M was used in only minor fashion during the LM I period; robbing and other pits are dug here within LM IIIA-B. They include one with an important LM IIIB metalworking-related deposit (already published because of its importance in indicating Crete's connections with the east Mediterranean bronzeworking sphere towards the end of the Bronze Age).[1] It is adjacent to and probably disturbs LM IIIA deposits, as discussed by Cunningham (Chapter 7, *Block M*), who also co-authors a much longer section on postpalatial remains in *Building 1*, Chapter 4). Pottery in this pit is mixed but the latest is clearly LM IIIB, matching the metalwork typology. Here and in *Building 1,* despite the fact that much clearly late IIIB pottery is illustrated among the latest deposits (slashed tripod legs, monochrome deep bowls, octopus stirrup jars), the authors would clearly prefer to push back the date of the town's last Late Bronze Age occupation in both absolute and relative terms (to early LM IIIB). Quantitative comparison of differently-dating pottery within the relevant deposits to assess the validity of this is impossible, given the selection processes employed in excavation recording and publication. In fact, overall from these two publications we gain important new evidence for continued if patchy use of Palaikastro as a town well into the LM IIIB period (with occupation, pottery manufacture in notably regional styles, metallurgy (two clay moulds, plus the Block M finds), and cult (Building 1 has a group of unusual and unusually positioned finds – clusters of pebbles and shells, a carefully deposited dagger of unclear Bronze Age manufacture date, specially treated pots, and a figurine head, which are argued to reflect a shrine use of some rooms). This use could extend up to or partly overlap with relocation of the population to the defensible summit of Kastri, traditionally dated in the earliest LMIIIC period, c. 1200 BC (though Cunningham and Sackett in *Building 1* place this event in the mid-13th century, apparently suggesting all LM IIIB material predates this (with no new absolute or relative evidence for shortening the phase, which is actually shown on the chronological table (*Building 1* p.438) as lasting for the whole century).

Another much-discussed crisis in Crete's history is the Thera eruption: *Building M* includes a provenancing study of tephra deposits to that eruption by Bichler (Appendix): the stratigraphy shows the tephra included in wash deposits, some perhaps from flooding associated with a tsunami. The disaster does not appear to have affected the selective course of reconstruction and occupation in the town pursued after the destruction at the end of MM IIIB, with Building 1 entering a floruit in LM IB but Block M continuing in a period of minimal use. Building 1 sees a supposedly deliberate destruction (on the basis of freshly cut rather than seasoned wood found among the charcoal material; this could however be building repair material or recently-stored firewood) at the end of LM IB. The excavators make the latter a 50-year period, identifying early and late phases, the last characterised by a rise in ogival cups. The quality and wealth of Building 1 in LM IB is matched by that of the contemporary Building 5, also excavated in the third campaign, and prioritised in publication by the project thanks to the find of an exceptional large gold and ivory figurine.[2] Driessen (*Building 1*

[1] S. Hemingway and P. Harrison, 1996. Minoan metalworking in the postpalatial period: a deposit of metallurgical debris from Palaikastro. *ABSA* 91: 213-52.

[2] J.A. Macgillivray, J.M. Driessen and L.H. Sackett, 1996. *The Palaikastro Kouros: A Minoan Chryselephantine Satuette and Its Aegean Bronze Age Context*. (BSA Studies 6). London: BSA.

p.7) suggests Building 1 could have been the original setting for this special cult item. In LM II-IIIA:1 the building, still two-storeyed but used only in its eastern part, is argued to have perhaps had special connections with Knossos based on its pottery and interior layout, where the rest of the settlement did not: in contrast to the case of Neopalatial Block M, it is suggested that such an association may have had positive connotations at this time. There are occupations and destructions in Building 1 through LM IIIA:1 (early and late) and IIIA:2, in which periods the excavators note that deposits are generally rich in drinking pottery: an architectural connection with the adjacent Building 4 to the W occurs in LM IIIA:2. Practices of pottery discard and water flotation sampling on the excavation make the degree of storage use hard to assess (as noted by Sarpaki, Chapter 7) but it would be surprising if storage were minimal or absent. The study argues that the building was used in a variety of ways in its latter period, including for food processing and animal husbandry, based on features like a gate entrance and baked pit linings potentially used as cheesemaking cauldrons. The LM IIIB deposits are the last below ploughsoil, as repeatedly shown, and thus may be expected to be ephemeral or truncated. Engagingly, the frontispiece of *Building 1* is a watercolour reconstruction, not of Building 1 in its LM IB prime (illustrated on the title page by a B/W drawing), but in LM IIIB, showing rebuilt rubble walls, partially plastered or washed (although this is not documented in the report) and single-storey construction.

The systems of site recording and stratigraphic interpretation used here are extremely complex, with building Phase, cross-site Period, four-part context number, 'zembil' (basket) of pottery within context, building/block number, and grid area all applying and cross-referred to detailed pottery chronologies (some now undergoing independent redating by the excavators). This potentially obstructs cross-examination of data by scholars outside the excavation team. Additionally the variety of staff and methods involved (including use of site labourers to identify and excavate deposits but not to record them) often makes basic interpretative and stratigraphic description of a *post-hoc* nature. Excavation and processing issues are frequently cited to explain apparent anomalies or make unwieldy facts fit, e.g. *Building 1* p. 282. The complexity of systems combined with this factor discourages the generation of any statistics within or outside the publication about pottery types or quantities per phase, deposit, type of deposit and so on. The problem may be made worse by other excavation practices common in the east Mediterranean, including the regular discard of amounts of coarse pottery (p. 278), the division of sherd material from whole vessels throughout the interpretative analysis of a single context (unless in a secondary fill, sherd material must surely be seen to represent original vessels within a context, and be consistently treated as such), and the setting aside of large amounts of mixed pottery in storage without detailed inventory or study according to an original context assessment such as 'mixed in date', 'intrusive' or 'nonfloor' (e.g. p. 175-6): the potential circularity and limits in this are obvious, especially when we read statements like 'when excavated the deposit was first recognised as primary, then thought to be just sherds so the vessels were mostly joined up from the zembils'; *Building 1*, p. 255). Distortion of the record can clearly take place already on site: many photos look as if artefacts have been put back in place long *after* a context was defined and partly excavated, rather than being records of a context as first identified, with all contained material in its original position (e.g. Plate 56).

The chapters on organic remains, small finds and materials by established specialists allow us to build up an increasingly reliable picture of everyday life, technology, trade and resourcing in Late Bronze Age Crete, which will be improved by the second Block M volume. Again, limits of excavation method and post-excavation sorting and discard as well as the variable preservation of the building between periods, place boundaries on the generation of insightful statistics in Building 1 studies (there are no MNIs apparently possible for the animal bones due to limited preservation and identification (Wall-Crowther, *Building 1*, Chapter 12); the fish bones are considered unsuitable for tracking long-term trends due to the presence of many fills and floor packings, even though the latter are datable (Mylona, *Building 1,* Chapter 9; she notes the commonest fish in use were small coastal species). Regarding recovery of plant remains by flotation, judgement-led soil sampling on site by excavation staff, means that only lists and quantities of plant finds per *sampled* context can be generated rather than a picture covering all contexts per phase on the basis of systematic sampling (Sarpaki, *Building 1,* Chapter 7). All the main domesticated food animals but very little or no game were in use across the long occupation of Building 1, with equid present in LM IB (Wall-Crowther, *Building 1*, Chapter 12). Purple dye from murex was produced on site through much of the later Bronze Age (Reese, *Building 1*, Chapter 10). The hot dry climate of eastern Crete today seems mirrored in the later Bronze Age, with charcoal remains showing pine, limited evergreen oak, and cultivated olive, with garrigue species, as a fairly consistent cover (Bottema-

MacGillavry, *Building 1,* Chapter 11). Barley and simple wheats were cultivated along with legumes, fig and grape. No naked wheats, such as the *triticum aestivum* represented at contemporary Knossos, were found, perhaps suggesting a regional preference or tradition (Sarpaki, *Building 1*, Chapter 7, who also notes the occurrence of flax in LM IIIA:2 deposits). Sarpaki makes the interesting suggestion that the lack of whole grains recovered from the Building 1 deposits may mean grain was stored as flour (rather than there being no storage). The stone tools, many from hand sized natural cobbles (apparently with some selection of sources not close at hand for particular materials) fit a typology increasingly identifiable across LBA Crete, including pestles, whetstones, pounders, querns, pounders/grinders, and tools likely used as polishers. Natural stalactites were collected and valued for appearance in LM III and perhaps earlier; pumice was fairly widely collected and in use, likely as an abrasive (Evely, *Building 1,* Chapter 5, p.317; *Block M,* Chapter 8). Plastered decoration in the MM II-LM IB period was clearly sophisticated, with multiple types of blue pigment and use of solid colour grounds; there are ornamental painted plaster objects in MM IIIB in both buildings (Westlake, *Building 1*, Chapter 6; *Block M*, Chapter 9).

Overall, the books present the results of an excavation long due for publication, in an impressive and readable manner, with much thoughtful interpretation and reliable expertise. With this cycle of excavations long complete and a new one in train, focused on new elements including survey in the wider region and the identification of a possible palatial building, we may look forward to refreshing new takes on the process and results of excavation at this rich site, with ambitious, widely-scoping aims overtly tying the work into wider research in the Mediterranean and Middle East.

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Lyvia Morgan, *KEOS XI. Wallpaintings and Social Context. The Northeast Bastion at Ayia Irini.* pp. 533 + xxix, 74 plates, 102 figs, 2 tbls. Philadelphia: INSTAP Academic Press, 2020. ISBN 9781931534970, hardcover $80.

This massive volume by one of the leading experts on Aegean Bronze Age fresco painting represents the fruition of many years of work on some interesting but extremely fragmentary frescoes from an unusual source at Ayia Irini, the most significant prehistoric settlement on Kea (ancient Keos, the first of the Cyclades south of Attica). The unusual source is two very large upper storey rooms in a bastion that was added to the fortification wall at the beginning of the Late Bronze Age, in Period VI of the sequence at Ayia Irini, and destroyed by an earthquake early in Period VII. The resulting rubble was evidently left uncleared, and the paintings flaked off the walls progressively, to be found at various levels in the debris that developed. This bastion was part of a major building programme undertaken during the period.[1]

The volume is not just a full publication of the material, that pays attention to many areas of interest, such as the evidence for the sources of the pigments used (in which Kea is notably rich) and the methods by which the frescoes were planned and painted, as well as presenting in catalogue all the pieces used in reconstructing the frescoes, with full colour illustrations (it is very much to the credit of INSTAP Academic Press that they have been willing to include so much colour illustration). It contains within it an enormous amount of information and discussion, backed by a bibliography of nearly 40 pages, concerning artistic themes and methods of representation on other Aegean frescoes and on different forms of Aegean Bronze Age art such as seals and precious vessels in metal and ivory, with references to contemporary Egyptian and Near Eastern artwork where this has relevance. It also, in a Prologue entitled "Perception and Interpretation: the Process", sets out the principles and methods that Morgan follows in reconstructing frescoes, displaying full awareness of the degree to which interpretation is inevitably influenced, not only by the choices of the original excavators and processors of the material, but by the development of a theoretical approach to the interpretation of art. The meticulousness with which the possible arrangements of the fragmentary material have been considered and restored, with readiness to alter an arrangement where necessary, is admirable, and gives the lie direct to the reported opinion of an unnamed 'distinguished archaeologist' that where fresco fragments had fallen from their walls, they were "the sort that one can put together in any way one pleases" (p. 10). It is acknowledged that a lot of the discussion is for specialists, and a helpful guide to the sections which cover "the crux of the matter" is provided on p. xxviii.

[1] As summarised in Gorogianni and Fitzsimons 2017: 143.