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Stylistic Diversity and Diacritical Feasting at Protopalatial Petras: A Preliminary Analysis of the Lakkos Deposit

DONALD C. HAGGIS

Abstract

This paper presents an overview of an assemblage of Middle Minoan (MM) IB pottery from a closed deposit known as the “Lakkos” at the Minoan palace of Petras in eastern Crete. The various ware groups are discussed with the aim of improving our understanding of the Protopalatial ceramic sequence in this part of Crete and the function of stylistic variation in a palatial context. Recent studies of the earliest palaces have shifted discussion away from the traditional view of the palace as an economic center by emphasizing evidence for regionally diverse sociopolitical configurations during the period. The MM IB–IIB palace is viewed not as a monolithic institution controlling contiguous territories but as a venue for the articulation of dominant ideologies in contexts suggesting a wide range of sociopolitical interactions within and outside the palace. Current approaches consider various forms of data, including elite or distinctly palatial styles of pottery, which are taken as symbolic referents in public rituals. My analysis of the Petras Lakkos pottery is informed by this paradigm shift: I argue that styles of pottery and stylistic relationships between pottery, seals, hieroglyphic documents, and peak sanctuary figurines are related to the visual expression of the identities of competing corporate groups. Drinking sets in different ware groups identify distinct social units or ritual roles

in a phase immediately prior to the foundation of the palace.*

INTRODUCTION

Specialized pottery production has been viewed as one component of emergent state society on Crete in the Middle Minoan (MM) IB period (ca. 1900 B.C.E.) and is linked to other archaeological evidence of developing sociopolitical complexity.¹ Although changes in ceramic systems have constituted only one of many identifying features of the early palaces, some forms of pottery have been given distinctly elite or particularly palatial designations. Central Cretan Polychrome Ware, the so-called Kamares Ware, is the best-documented example.² The special function, formal complexity, and aesthetic elegance of painted and modeled design elements distinguish Kamares Ware within Protopalatial drinking and dining assemblages. The palatial and cult contexts of the deposition and the evidence for extra-island exchange have led to the characterization of Kamares as an elite product,

*The Lakkos pottery study, “Cultural Regionalism and Palatial Power in Middle Bronze Age Crete,” was conducted by permission of the Petras excavation director, M. Tsipopoulou, and the 24th Ephorate of Prehistoric Antiquities. I wish to thank M. Tsipopoulou for inviting me to study the Lakkos assemblage and for facilitating the fieldwork; V. Apostolakou and the late N. Papadakis (24th Ephorate) for their support of the study seasons; T. Brogan, director of the INSTAP SCEC, for permitting the use of the INSTAP SCEC facilities; D. Faulmann (INSTAP SCEC) and R. Docsan for inking the drawings and offering advice on methods of illustration; M. Eaby, K. Bishop, K. Wile (University of North Carolina at Chapel Hill), and J. Marranca (Marranca Engineering, PLLC), whose assistance and collaboration were invaluable; and P. Betancourt for inviting my participation in Temple University’s Kamares Ware Symposium (Betancourt 2002). Thanks are also owed to E. Anderson, C. Knappett, N. Momigliano, and Y. Papadatos for much useful input, and the anonymous review-

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¹E.g., Cadogan 1986; Cherry 1986; Branigan 1987; MacGillivray 1987, 1990; Walberg 1987a, 1987b.

²Betancourt 1985, 90; Walberg 1987b, esp. 284; cf. Day and Wilson 1998, 356.

a prestige good produced and distributed by a central authority in the first palaces.³ Scholars conceived of a hierarchy of ceramic forms with a central Cretan palatial core and a “provincial” periphery of entangled regionalism and rustic simplicity.⁴

In response to this reductionist stylistic dichotomy, more recent studies of Protopalatial pottery have aimed to reconstruct the stratigraphic details and chronological problems of local ceramic sequences⁵ while recognizing both the existence of elite styles outside the assumed production zones of Classical Kamares and the need to reevaluate the Knossian and Phaistian sequences.⁶ Three principal concepts of Protopalatial ceramic systems have been established. First, stylistic regionalism suggests a chronologically and geographically diverse range of forms and wares that needs to be understood in terms of local cultural sequences established within stratigraphically defined contexts.⁷ Second, locales of production and contexts of consumption demonstrate two independent processes that may not be connected directly to a managerial authority in the palaces.⁸ And third, some regional styles may be independent responses to the Kamares or central Cretan tradition.⁹

Cherry viewed Kamares production as part of a social and political process reflecting competitive emulation between interacting autonomous centers of parallel emerging palace-states.¹⁰ With this peer-polity perspective, the discussion shifted away from the palatial/provincial and elite/rustic to a view of pottery as cultural production informed by social interaction on a regional scale. This important regional perspective was developed further by Cadogan, who introduced the idea of a culturally and politically unified region defined by a similar culture that was centered at Malia and extended south to Myrtos Pyrgos and at least as far east as the Ierapetra isthmus (fig. 1).¹¹ Distinct spheres of cultural interaction began to fill out the map of Crete, adding detailed political and geographic dimensions to the picture of ceramic regionalism.

More recently, a restructuring of the analysis—materially and theoretically—of the Protopalatial state combined with the results of petrographic studies has recognized the potential pitfalls of associating regional ceramic spheres with palatial centers or palatial control of production. Displaying concrete evidence for the south-central provenance of much of the Knossian Kamares Ware, Day and Wilson showed that the palace was an importer and (possibly ritual) consumer of high-quality tablewares—prestige goods brought to the palace and then used and displayed in public venues of elite interaction involving drinking and dining.¹² In addition, Knappett’s nuanced reevaluation of the ceramic evidence for Cadogan’s Lasithi state led him to remodel the relationship between Pyrgos and Malia, visualizing the sites as parts of a decentralized segmentary state in which the parallel appearance of similar pottery types at Malia and Pyrgos was independently driven by a local symbolic discourse in venues of elite consumption (fig. 2).¹³ The stylistic links between Myrtos and Malia fine tablewares, first recognized by Cadogan and Poursat during excavations at Pyrgos and Quartier Mu,¹⁴ are rooted not in the economic centralization of a Maliote authority but in the palace’s ideological influence. Local power was publicly articulated and reinforced through symbolic connections to the Malia center. One important vehicle for this social display was fine pottery used in contexts of ritual consumption. Thus, our notions of a palatial economic and political territory had to be reevaluated for Knossos and Malia in the wake of evidence for dynamic patterns of intra- and interstate interaction; the result was a less strictly centralizing and hierarchical ordering of sociopolitical configurations in the landscape. Pottery used in ritual or ritualized contexts of public interaction has become an important piece of evidence for reconstructing social and political systems in the first palaces.¹⁵

While regional ceramic spheres, chronologies, and patterns of exchange in central Crete and the Lasithi

³Walberg 1976, 1983, 1987a, 2002.

⁴Walberg’s (1983) stylistic analysis of the Kamares Ware Group and her subsequent book on regional forms and styles created in the literature a conceptual center-periphery model, with palaces at Knossos and Phaistos defining the notional boundaries of the Kamares “style,” rationing its features, and limiting its dissemination; see also Walberg 1987b; cf. MacGillivray 1987; Day and Wilson 1998; Day et al. 2006, 54.

⁵Betancourt 1977, 1985, 1990; Andreou 1978; Levi and Carinci 1988; Cadogan et al. 1993; Stürmer 1993; Momigliano and Wilson 1996; Carinci 1997; Knappett 1997, 1999a, 2003, 2006; Poursat 1997; MacGillivray 1998; Momigliano 2000; see also discussion in MacGillivray 1987, 1990; Knappett 1999b.

⁶Walberg 1983, 1987b; Cherry 1986; MacGillivray 1987, 1990; Cadogan 1988, 96; 1994, 64–5.

⁷E.g., Knappett 1999a, 2006.

⁸E.g., MacGillivray 1987; Day and Wilson 1998.

⁹Following Walberg 1983.

¹⁰Cherry 1986, esp. 35–8.

¹¹Cadogan 1988, 1990, 1995; cf. Poursat 1987.

¹²Day and Wilson 1998.

¹³Knappett 1999a; cf. 2005.

¹⁴Poursat 1987; Cadogan 1995.

¹⁵See Knappett and Schoep’s (2000, 370) link between “political culture” and regional ceramic styles in the Protopalatial period.



Fig. 1. Map of Crete (courtesy Ancient World Mapping Center, University of North Carolina at Chapel Hill).

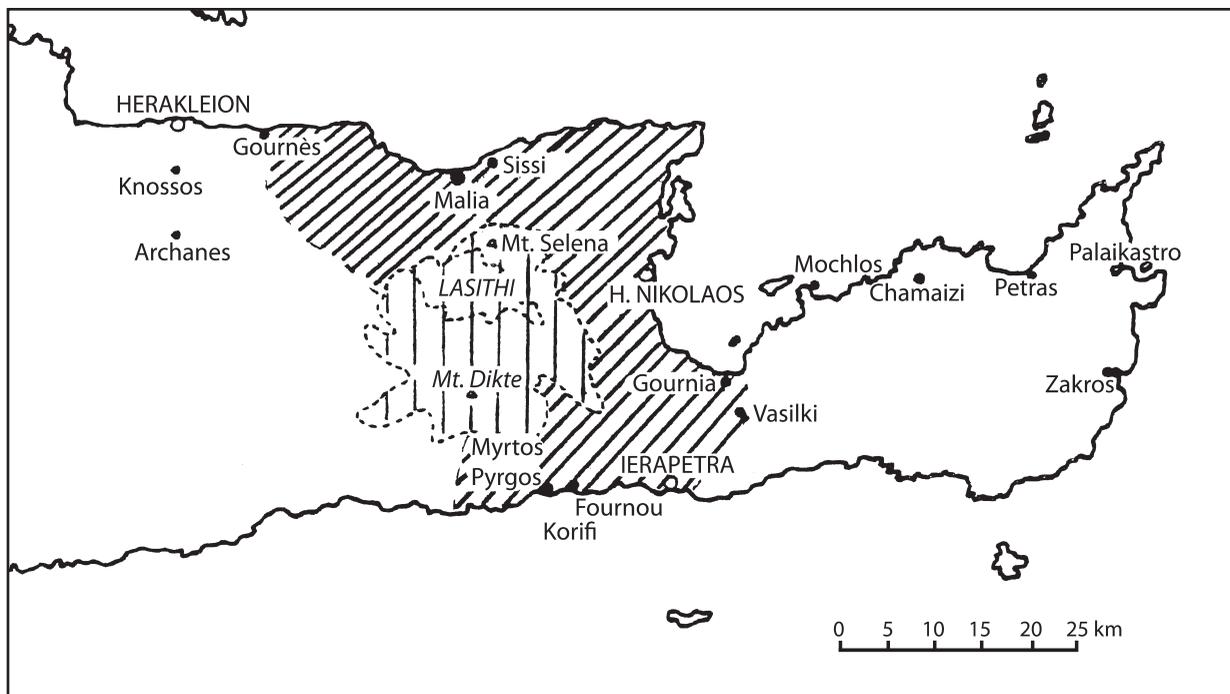


Fig. 2. Map of eastern Crete, showing the extent of the hypothetical Protopalatial Malia state (diagonal lines) (after Knappett 1999a, fig. 6).

region are beginning to take shape, the situation in the eastern area of the island remains far from clear.¹⁶ Work at the site of Petras (see figs. 1, 2) on the Bay of Siteia has produced stratified remains of the MM II palace and hieroglyphic archive and a substantial, well-preserved deposit of MM IB pottery, ostensibly closed in conjunction with the construction of the first palace at the site at the start of MM IIA.¹⁷ This deposit is known as the “Lakkos” (“pit” in Greek), in reference to its context: a large cavity excavated into the northeast side of Petras Hill, downslope and about 75 m north of the palace (figs. 3, 4). This article presents the initial results of a study of the ceramic material recovered from the Lakkos deposit and situates that material within the discussion of ceramic regionalism and stylistic diversity in Protopalatial Crete.

THE LAKKOS DEPOSIT

Systematic excavations at Petras have been conducted since 1985 by Tsipopoulou, recovering areas of the Minoan settlement on the north and east slopes of Petras Hill and an MM II to Late Minoan (LM) IB palace on an artificial ridge downslope from the summit.¹⁸ The Protopalatial remains at the site (see fig. 3) indicate a major program of building and restructuring of space at the start of MM IIA. Identifiable structures of the MM IIA–B phases include the foundations of a palace with a central court; a massive, rectangular “cyclopean” building on the southeast (possibly a store room); a cult room in the southwest with a plastered bench, flagstone paving, and orthostates; and a hieroglyphic archive recovered from an MM IIB burnt destruction deposit, fallen from a second-story room into the MM II doorway in the original north facade.¹⁹ Other MM II constructions at the site include cyclopean retaining or defensive walls visible on the east and at the far northern edge of Petras Hill.

An unusual find that antedates the construction of the palace itself is a large pit, which, as noted above, is known as the Lakkos and is located to the north of the palace on the lower slope of the hill in sector III (A3/A4) (see figs. 3, 4). The excavator defined

the Lakkos as a wide depression (ca. 10 x 5 x 2 m) containing a secondary deposit of cultural material possibly used in elite buildings that were destroyed on the upper plateau during the modification of the hill to accommodate the palace at the start of MM IIA. The terminus post quem for the deposit is firmly established by the identification of a substantial and potentially important Early Minoan (EM) III building complex abandoned at the end of MM IA. Part of this structure was exposed directly beneath the Lakkos in soundings conducted by Tsipopoulou and Rupp in 2000.²⁰ After the Lakkos deposit was closed, the area of sector III was used as open space, perhaps a courtyard, with little apparent building activity until LM IA.²¹ The composition and stratigraphic position of the sector III deposit and its context (a systematic filling in of the EM III–MM IA terrain with material transported downslope from the upper plateau) suggested that the pottery constituted a terminus post quem for the foundation date of the palace. According to Tsipopoulou:

The amount of ceramic material can only be qualified as stupefying: the fill of the pit consists of sherds laced with earth, rather than soil containing sherds. All the vessels had been shattered before reaching their final resting place: very few joins have been identified. . . . Of note for the history of research at Petras is the fact that the pit is the first trench to produce numerous emphatically ritual vessels.²²

The chronology of the Lakkos suggests its importance in reconstructing east Cretan ceramic sequences. The proximity of the deposit to the palace and the composition of the assemblage, consisting of high-quality tablewares (e.g., Polychrome Ware) and ritual equipment, point to ceremonial use and elite consumption. Ritual implements include kernoi, rhyta, incense burners, kalathoi, and a clay-boat fragment. Of special function are vessels bearing incised potter’s marks and Cretan hieroglyphics, a vessel with a seal impression, a pictorial sealstone, stone vases (including alabaster and serpentine), pedestaled and tripod vases

¹⁶ See discussion in Cadogan 1988, 96; 1994, 64–5; Knappett 1999a. Important results are provided by stratigraphic soundings at Mochlos (Soles and Davaras 1996, 180–84; Soles 2004); excavations in Hagios Charalambos, Lasithi (Betancourt 2003), and Katalimata (Nowicki 2002); an analysis of the Building 7 deposits at Palaikastro (Knappett 2006); and reassessment of Protopalatial material from earlier excavations.

¹⁷ Bosanquet 1901–1902; Tsipopoulou 1987, 1995, 1997, 1999a, 1999b, 2002, 2005; Tsipopoulou and Vagnetti 1995; Tsipopoulou and Hallager 1996a, 1996b. Excavations by Tsi-

popoulou and Papadatos on the neighboring Kephala Hill have recently produced significant Prepalatial and Protopalatial remains, including a number of east Cretan-style house-tombs.

¹⁸ Tsipopoulou 2002, 136–37.

¹⁹ Tsipopoulou and Hallager 1996a; Tsipopoulou 1999a, 2002.

²⁰ Tsipopoulou 2002, 136–37; Rupp 2006, 263, 268.

²¹ Tsipopoulou 1996.

²² Tsipopoulou 1996.



Fig. 3. Plan of Petras, showing the palace, sector III, and the location of the Lakkos deposit (courtesy M. Tsipopoulou).

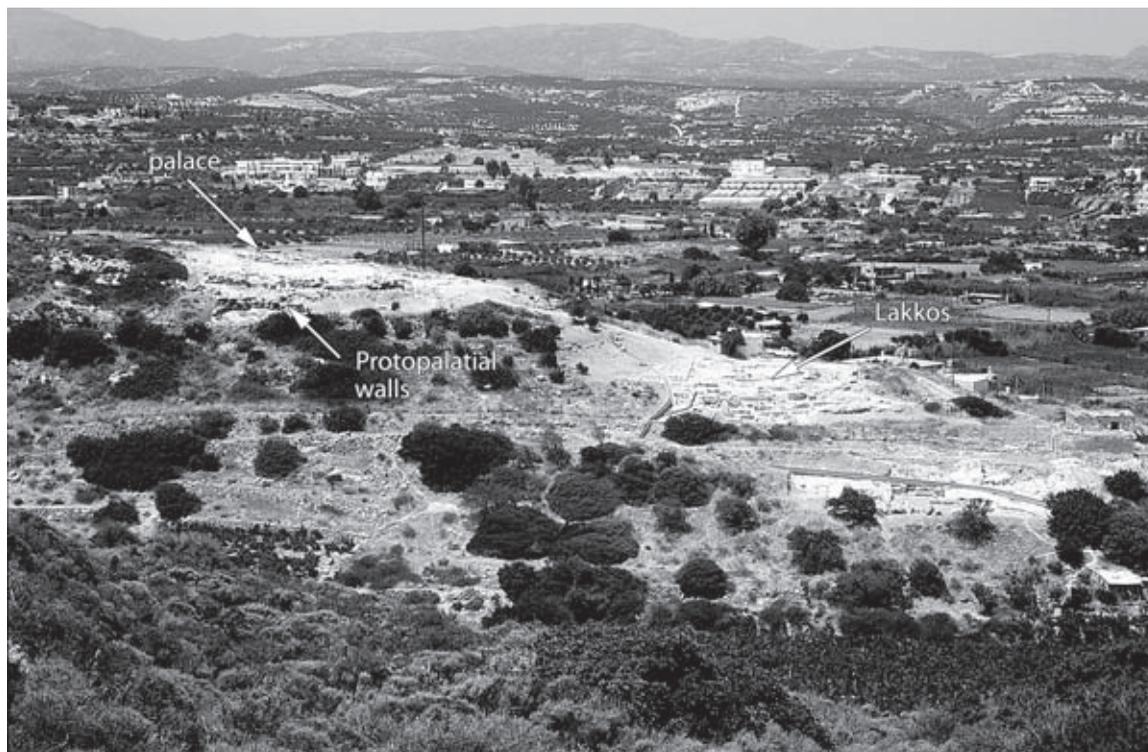


Fig. 4. Petras. View to the west, showing the location of the palace and the Lakkos deposit.

and fruitstands, and marine shells.²³ The stratigraphic position of the Lakkos, establishing a *terminus ante quem* for the Prepalatial buildings in sector III and the likely *terminus post quem* for the MM IIA building phase at the site, provides a rare opportunity to explore patterns of ceramic consumption in a relatively short period immediately preceding the appearance of the palace building and its palatial authority.

The study consisted of the examination and recording of about 50,000 sherds (ca. 2,000 kg) across 185 lots (bags of pottery), 150 of which are morphologically consistent in the chronological range and representation of ware groups.²⁴ Another 84 lots were examined and recorded but not fully documented or sampled for this study because they contained a number of chronologically intrusive elements (MM IIA–LM III),

²³ Tsipopoulou 1996, 2002; Rupp 2006, 268. Faunal remains (animal bones) are found scattered throughout the assemblage but not in amounts suggesting a concentration of food debris or discard.

²⁴ Recent excavations have continued to recover more of the Lakkos deposit as well as the stratified late Prepalatial levels with preserved architectural remains (Rupp 2006). The present study represents an analysis of the pottery recovered in the 1995 and 1996 campaigns; the study was conducted over four field seasons (in 1997 and from 1999 to 2001) in the Siteia Ar-

indicating the contamination of the pit by later activity in sector III. The catalogue sample consists of 694 sherds.²⁵

THE WARE GROUPS

The following descriptions provide a general outline of the main characteristics (surface, slip, and core; hardness; texture; visible rock inclusions) of discernable fabrics (tables 1, 2) that are represented in the ware groups (table 3). Ware groups are differentiated by distinctive surface treatments and slips, especially patterns of painted decoration. Descriptions are based on macroscopic visual analysis—sections (broken edges) were also examined with a 10x hand lens and occasionally a stereoscope—not on petrographic analyses.²⁶ Where possible, the fabrics are correlated

archaeological Museum and the Institute for Aegean Prehistory Study Center for East Crete in Pacheia Ammos.

²⁵ This sample does not include some 240 individual sherds removed from lots and catalogued as small finds by the Petras excavations. Quantification of the wares will be presented with the final publication of the deposit.

²⁶ The Lakkos fabric descriptions here are based on the visual analysis by M. Eaby, who will publish detailed macroscopic fabric descriptions in the final publication of the Petras Lakkos ceramic study.

Table 1. Abbreviated Descriptions of Principal Fabric Types in the Lakkos Deposit.

Fabric	Color Range	Macroscopically Visible Inclusions	Ware Groups	Possible Published Fabric Type
Fine pink/gray	5YR 7/4–7.5YR 7/4 pink 10YR 6/1 gray	microscopic phyllites and white inclusions	White-on-Dark, Polychrome, Spatter, Monochrome, Dark-on-Light, Plain, Buff-Burnished (fine)	–
Pink-buff	7.5YR 7/4 pink 7.5YR 7/6 reddish yellow 5YR 6/2 pinkish gray	phyllite, quartz, quartzite, biotite, mica, possible calcite	White-on-Dark, Polychrome, Spatter, Monochrome, Dark-on-Light, Plain, Buff-Burnished (fine, coarse)	Group 5, orange/red fabric with rounded schist inclusions ^a
Petras buff	10YR 8/3 very pale brown 10YR 7/1 light gray	phyllite, quartz, silver mica	White-on-Dark, Polychrome, Spatter, Monochrome (fine, coarse)	Group 1, fossiliferous matrix with reddish siltstone and phyllite ^b
Phyllite-quartzite	2.5YR 4/4 reddish brown 7.5YR 3/0 very dark gray	phyllite, quartzite	Rough-Burnished, Dark/Red Wash (fine, coarse)	Group 4, coarse phyllite and quartzite ^c
Quartz-quartzite	5YR 5/6 yellowish red 5YR 5/3 reddish brown 2.5YR 4/6 red	quartz, quartzite, mica, biotite	Cooking Ware (coarse)	Group 2, igneous greenstones and metamorphics; Group 3, fine red with polycrystalline quartz ^d
Mirabello ^e	core: 7.5YR 7/4 pink 7.5YR 6/4 light brown 7.5YR 6/2 pinkish gray slip: 10YR 6/2 light brownish gray 10YR 7/3–7/4 very pale brown 7.5YR 7/4 pink ^e	granodiorite, biotite, mudstone ^e	White-on-Dark (EM III), Dark-on-Light, Blob, Buff-Burnished (fine, coarse) ^e	–

^a Day 1995, 157–59^b Day 1995, 153–54; Tsipopoulou 1995, 31^c Day 1995, 157^d Day 1995, 154–55^e Day 1991, 1995; Haggis and Mook 1993; Hayden 2004, 23; Haggis 2005, 45; Mook 2005

Table 2. Abbreviated Descriptions of Slips and Paints Used in the Lakkos Ware Groups.

Ware Group	Surface/Slip Color	Added Color (Slip or Paint)
White-on-Dark	2.5Y 3/0 very dark gray, 2.5YR 3/4 dark reddish brown, 2.5YR 4/6 dark red	10YR 8/2 white, 5YR 8/1 white, 5YR 8/3 pink
Polychrome	2.5Y 3/0 very dark gray, 2.5YR 3/4 dark reddish brown	red: 10R 4/8 red, 2.5YR 5/8 red, 2.5YR 6/8 light red; white: 10YR 8/2 white, 5YR 8/1 white
Spatter	10YR 7/6 yellow, 10YR 8/1-8/2 white, 10YR 8/3-8/4 very pale brown, 2.5Y 8/2 white	10YR 5/2 dark grayish brown, 7.5 R 3/0 very dark gray, 7.5YR 5/6 strong brown, 7.5YR 6/6 reddish yellow, 2.5YR 5/6 red, 10 R 4/8 red, 2.5 YR 6/6 light red
Rough-Burnished	2.5YR 5/6 red, 2.5YR 4/4 reddish brown, 5YR 5/4 reddish brown; 7.5YR 3/0 very dark gray	-
Monochrome	black: 2.5Y 3/0 very dark gray, 2.5YR 3/4 dark reddish brown, 2.5Y R 4/6 dark red; red: 10 R 4/6-4/8 red, 10 R 3/6 dark red, 2.5YR 5/6 red, 2.5YR 6/8 light red, 5YR 5/6 yellowish red, 5YR 6/6 reddish yellow, 5YR 5/3 reddish brown	-
Dark-on-Light	10YR 7/6 yellow, 10YR 8/1 white, 10YR 8/4 very pale brown, 2.5Y 8/2 white, 7.5YR 7/4 pink, 7.5YR 7/6 reddish yellow	5YR 4/6-5/6 yellowish red, 5YR 4/3 reddish brown, 7.5YR 5/6 reddish yellow, 2.5YR 5/6 red, 10YR 3/1 very dark gray, 2.5Y 3/0, 4/0 dark gray
Plain	7.5YR 7/6 reddish yellow, 7/4 pink, 5YR 6/6 reddish yellow	5YR 6/4 light reddish brown, 7.5YR 7/4 pink
Buff-Burnished	7.5YR 7/4 pink, 7.5YR 7/6 reddish yellow, 10YR 6/3 pale brown, 10YR 5/3 brown	-
White-Slipped	5YR 8/1 white	-
Dark/Red Wash	2.5YR 5/6 red, 2.5YR 4/4 reddish brown, 5YR 5/4 reddish brown, 7.5YR 3/0 very dark gray	-
Cooking	5YR 5/6 yellowish red, 5YR 5/3 reddish brown, 2.5YR 4/6 red	-

Table 3. Occurrence of Recognizable Vessel Forms in the Lakkos Ware Groups.^a

Vessel Form	Ware Group											
	Poly-chrome	White-on-Dark	Spatter	Rough-Burnished	Mono-chrome	Plain	Dark-on-Light	Buff-Burnished	White-Slipped	Blob	Dark/Red Wash	Cooking
Conical/one-handed cup	X	X	X	X	X	X	X	X	X	X	-	-
Saucer	X	X	X	X	X	X	X	-	-	-	X	-
Carinated/angular cup	X	X	X	X	X	X	X	X	-	-	-	-
Round cup	X	X	X	X	X	-	X	-	-	-	-	-
S-profile cup	X	X	X	?	X	X	X	-	-	-	-	-
Tumbler	X	X	X	?	X	X	X	-	X	X	-	-
Straight-sided cup	?	X	X	X	X	X	X	X	-	-	-	-
Beveled cup	X	X	X	X	X	-	-	X	-	-	-	-
Fruitstand	X	X	?	X	X	X	X	-	-	-	X	X
Jug/closed form	X	X	X	X	X	X	X	-	-	X	-	-
Bridge-spouted/spouted jar	X	X	X	X	X	X	X	-	-	-	X	-
Bowl	X	-	X	X	X	X	X	X	X	-	X	X
Jar	X	X	X	X	X	X	X	X	-	X	X	X
Baggy jug/jar	X	X	-	X	X	X	X	X	-	-	-	-
Tripod vessel	X	X	-	X	-	-	-	-	-	-	-	-
Footed goblet	X	-	-	-	-	-	-	-	-	-	-	-
Lamp	-	-	-	-	X	-	-	-	-	-	X	-
Lid	-	X	-	-	-	X	-	-	-	-	-	X
Cooking dish/tray/tripod	-	-	-	-	-	-	-	-	-	-	X	X
Lekane	X	X	-	X	-	X	X	X	X	X	X	X
Oval-mouthed amphora	-	X	X	-	X	X	X	-	-	-	X	-
Pithos	-	-	-	-	-	-	X	-	-	-	X	-

^a Possible drinking/dining sets shaded; storage/serving sets outlined.

to the published ceramic groupings defined by Day in his petrographic analyses of samples derived from sites in the Siteia Valley and the immediate vicinity of Petras.²⁷ The Lakkos pottery is generally consistent with a local sphere of production,²⁸ although some of the wares are certainly Mirabello imports. There are no obvious Knossian imports.²⁹

White-on-Dark Ware

Generally recognized to be an east Cretan invention, White-on-Dark Ware may be a stylistic development of the so-called Prepalatial Light-on-Dark Ware, exemplified in the well-known EM III North Trench Group at Gournia.³⁰ The essential forms, motifs, chronological contexts (EM IIB–MM IB), and development of White-on-Dark Ware have been explored thoroughly by Betancourt, Walberg, and Andreou.³¹ The ware is on the whole rare outside eastern Crete in the Prepalatial period, becoming more common in MM I, when there are examples at Knossos, especially in forms of MacGillivray's Woven Style.³² While it is certainly common in assemblages as far west as Malia and Myrtos Pyrgos,³³ White-on-Dark Ware could have originated in workshops in the area from the Bay of Mirabello eastward.³⁴

White-on-Dark Ware examples generally have a fine pink or gray core and a dull or lustrous black slip (fig. 5a). The surfaces sometimes have a glossy or metallic sheen.³⁵ The white paint is generally a bright milky or chalky color, although a few EM III–MM IA examples have a dull yellowish or pinkish hue.

Representative forms include angular, S-profile, round, straight-sided, conical, beveled, and one-handled cups; tumblers; saucers; and bridge-spouted and baggy jars or jugs (figs. 6–9; see table 3). Fine lids and medium-coarse oval-mouthed amphoras are also found. Special-function vessels such as fruitstands, tripod bowls, and saucers (see fig. 8i) are rare in the assemblage. On the whole, the decorative scheme of White-on-Dark Wares in the Lakkos is less complex and pleonastic than examples in the earlier Gournia North Trench Group. Simple bands (including a standard base and rim band) and horizontal or

diagonal lines, sometimes intersecting with pendant arcs, form the standard framework (see fig. 6b, d–g). Pendant arcs, festoons, chevrons, hatched registers (see fig. 8d) and triangles, cross-hatching, S-spirals (quirks) (see fig. 7f), and dotted bands and circles provide clear stylistic links to the late Prepalatial assemblages,³⁶ but the effect is somewhat different. Vertical and diagonal lines and cross-hatching are applied sparingly in the Lakkos, and simple patterns—diagonal, horizontal, and vertical lines and springing or pendant arcs—are clearly used to structure the surface space of the vessel, serving to frame and accentuate the placement of individual motifs or clusters of motifs such as S-spirals, zigzags (sigmas), radiating and whirling designs, dotted circles, J-spirals, C-spirals, and foliate sprays and bands (see figs. 6c–h, 7a, d, f, g, 8e–g). Redundancy and infilling do occur, but the effect is more open and less busy; the intent may have been to focus attention on individual motifs, which include linear and geometric designs that correspond closely to signs and motifs on Protopalatial seals discussed below. While the handling of space and the centering and framing of motifs suggest a change from the Gournia North Trench Group, the real departure is in the use of floral patterns (foliate bands and sprays [see fig. 7f, h]), which may have been influenced by the more elaborate floral tradition in Polychrome Ware.³⁷

Polychrome Ware

Polychrome Ware has the same range of fine fabrics, black ground slip, and white paint as White-on-Dark Ware. The surfaces usually have a dark lustrous or metallic slip, and the added paint is dark red, light red, or, more rarely, orangish in color (see fig. 5b, c). Examples are very well finished, with a thick and evenly smoothed or burnished slip extending over the vessel walls and bottoms, frequently obscuring all traces of forming technology such as vertical shaving or paring, rilling (horizontal striations or finger marks), and scraping.

The Lakkos Polychrome Ware does not differ substantially from that of Knossos in MM IB, the simpler

²⁷Day 1995.

²⁸See discussion in Day 1995, 159, 165–66.

²⁹N. Momigliano, pers. comm. 2001.

³⁰See Andreou 1978, 55–6; Betancourt 1985; Day et al. 2006, 36–7. For EM IIB White-on-Dark Ware, see, most recently, Wilson 1994, 32–3; Wilson and Day 1999, 18–25.

³¹Walberg 1983. For chronological developments, see Andreou 1978, esp. 57–69, 84–9, 109–17; Betancourt 1984, esp. 21–34.

³²MacGillivray 1998, 59–60, 19–21, fig. 2.1[1], pl. 2[56].

³³Examples in Chapouthier et al. 1962, 43–50; Andreou

1978, 82–92; Betancourt 1983; 1984, 18–19; Stürmer 1993, 149, 151, fig. 9[95].

³⁴See discussion of White-on-Dark Ware examples from the University of Pennsylvania Museum (Gournia, Priniatikos Pyrgos, Vasiliki) in Betancourt 1983; see also Betancourt and Silverman 1991, 5–18.

³⁵A few versions in the local Petras buff fabric (Day 1995, 153–54; Tsipopoulou 1995, 31) have a porous texture, and the dull black slip adheres poorly to the vessel surface.

³⁶Betancourt 1983, 21–34.

³⁷Betancourt 1983, 21.



Fig. 5. Various wares from the Lakkos deposit: *a*, White-on-Dark Ware tumbler (L249); *b*, Polychrome Ware jug or jar fragment (L216); *c*, Polychrome Ware tumbler rim (L37); *d*, Spatter Ware jug base (L174); *e*, Rough-Burnished Ware round cup rim (L23); *f*, Rough-Burnished Ware conical/one-handed cup interior (L55) (*a–c*, scale 1:1; *d–f*, scale 1:2) (K.E. May).

decorative patterns of Levi's phase Ia at Phaistos, or Walberg's Early Kamaras phase.³⁸ Even so, barbotine is absent from the sample studied,³⁹ and the overall decorative scheme is closely related to, if not derivative of, the White-on-Dark Ware tradition described above. Polychrome Ware motifs, which include pictorialized and naturalistic patterns, are more complex

in composition than White-on-Dark Ware motifs and more varied in the use of designs.⁴⁰ Linear elements predominate, especially bands; parallel diagonal and vertical lines; pendant, springing, and intersecting arcs; and sometimes horizontal (fig. 10a–e, g), diagonal (see fig. 10h, j, k), and vertical (see fig. 10f) panels. The framework usually consists of a thick red

³⁸ Levi 1976; Walberg 1987a, 47, 126; Momigliano and Wilson 1996, 13–15, esp. fig. 8; MacGillivray 1998, 59–60; Knapnett 2003, 42–4. I have followed Walberg (1983, 1987a) for much of the descriptive nomenclature for the motifs and de-

sign elements.

³⁹ The odd footed goblet (L642) may be an exception.

⁴⁰ Andreou (1978, 95) sees these more complex patterns as characteristic of his Vasiliki House A–Zakros Group.

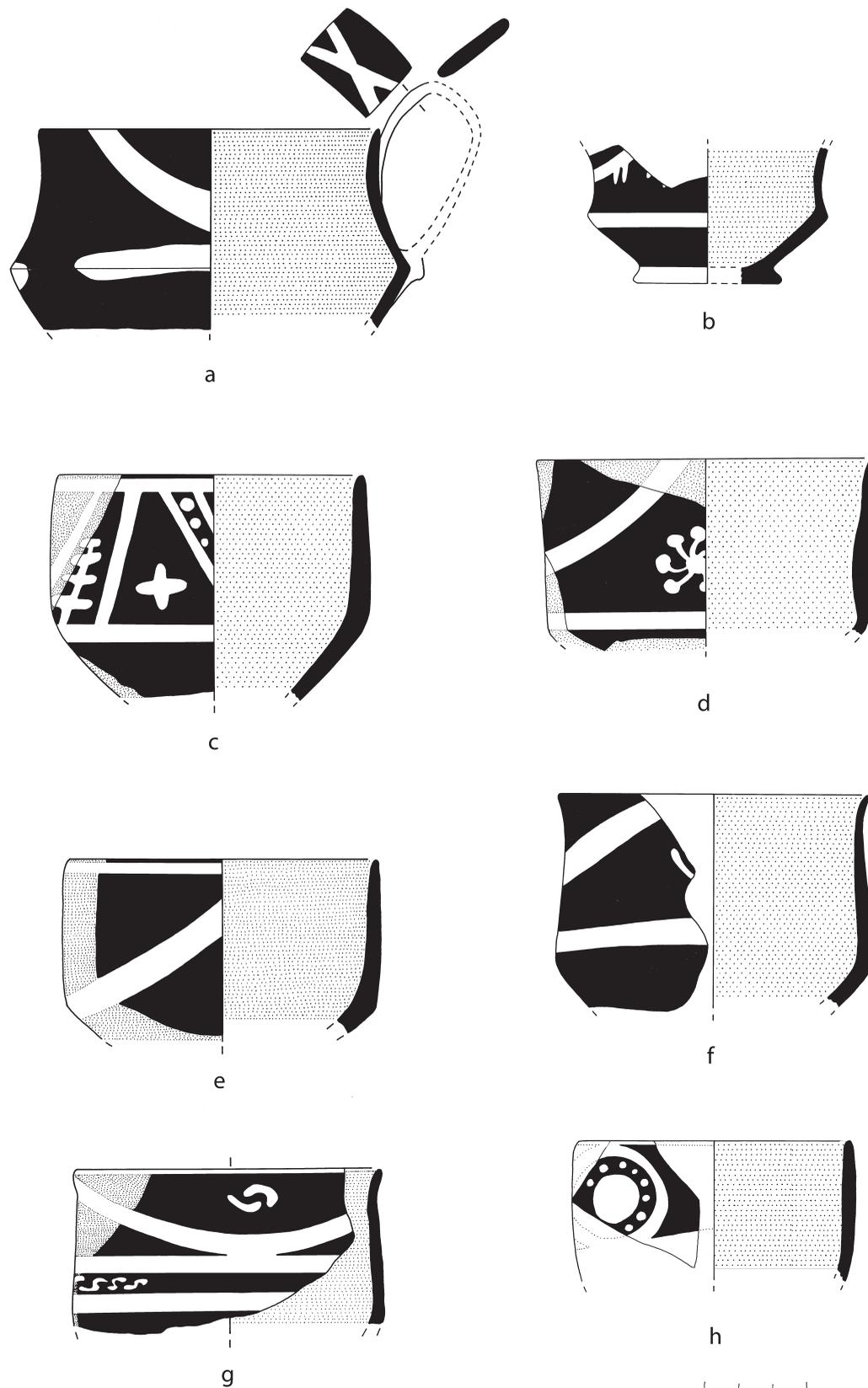


Fig. 6. White-on-Dark Ware: *a*, carinated cup (L93); *b*, carinated cup (L630); *c*, angular cup (L165); *d*, angular cup (L164); *e*, angular cup (L11); *f*, S-profile cup (L268); *g*, round cup (L15); *h*, round cup (L232).

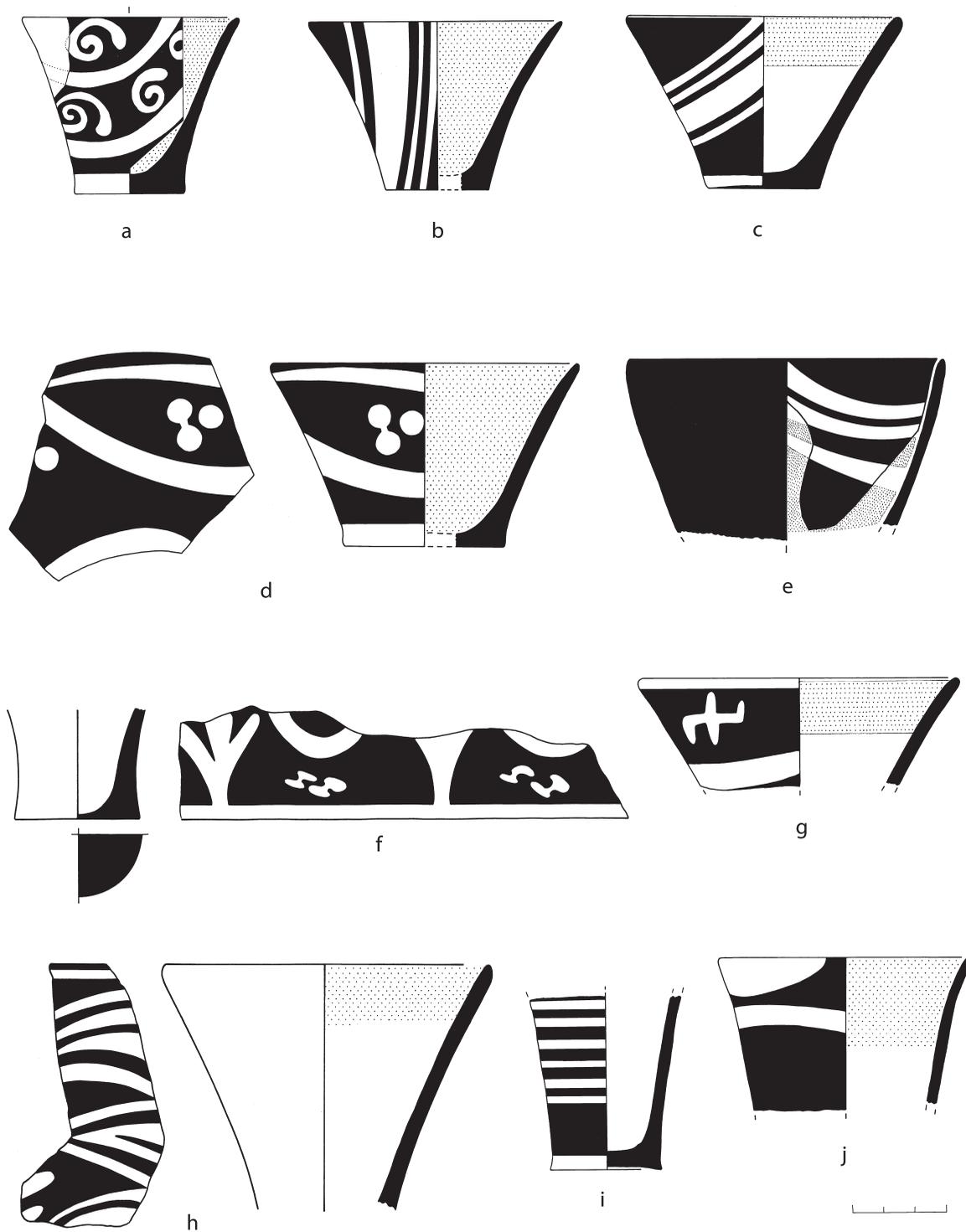


Fig. 7. White-on-Dark Ware: *a*, tumbler (L249); *b*, tumbler (L196); *c*, conical cup (L611); *d*, conical cup (L150); *e*, conical cup (L147); *f*, tumbler (L466); *g*, tumbler (L667); *h*, tumbler (L469); *i*, tumbler (L617); *j*, tumbler (L307).



Fig. 8. White-on-Dark Ware: *a*, straight-sided cup (L351); *b*, straight-sided cup (L47); *c*, beveled cup (L16); *d*, beveled cup (L49); *e*, beveled cup (L166); *f*, beveled cup (L44); *g*, beveled cup (L182); *h*, saucer (L350); *i*, tripod saucer (L40).

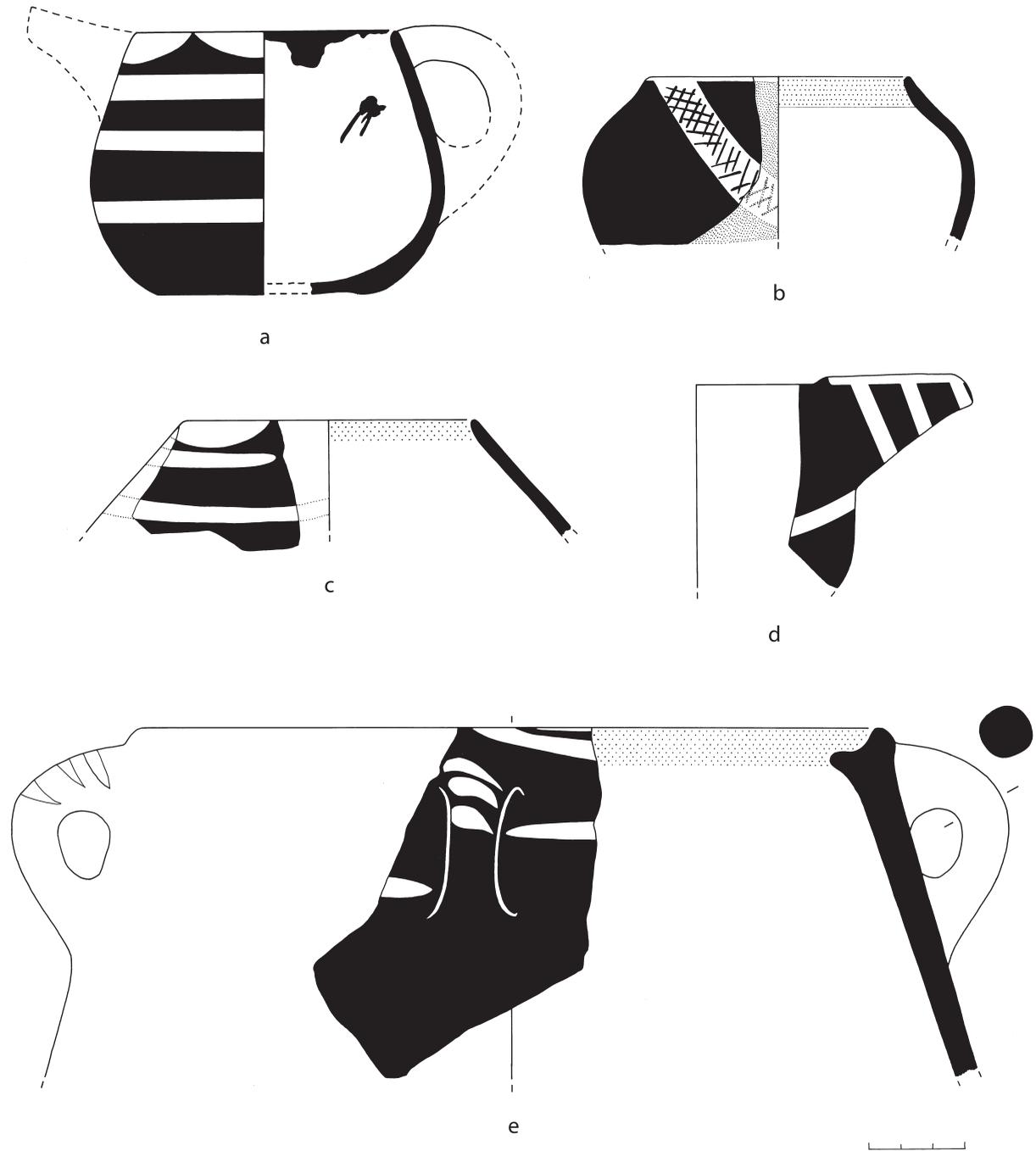


Fig. 9. White-on-Dark Ware bridge-spouted jars: *a*, L10; *b*, L416; *c*, L325; *d*, L332; *e*, L197.

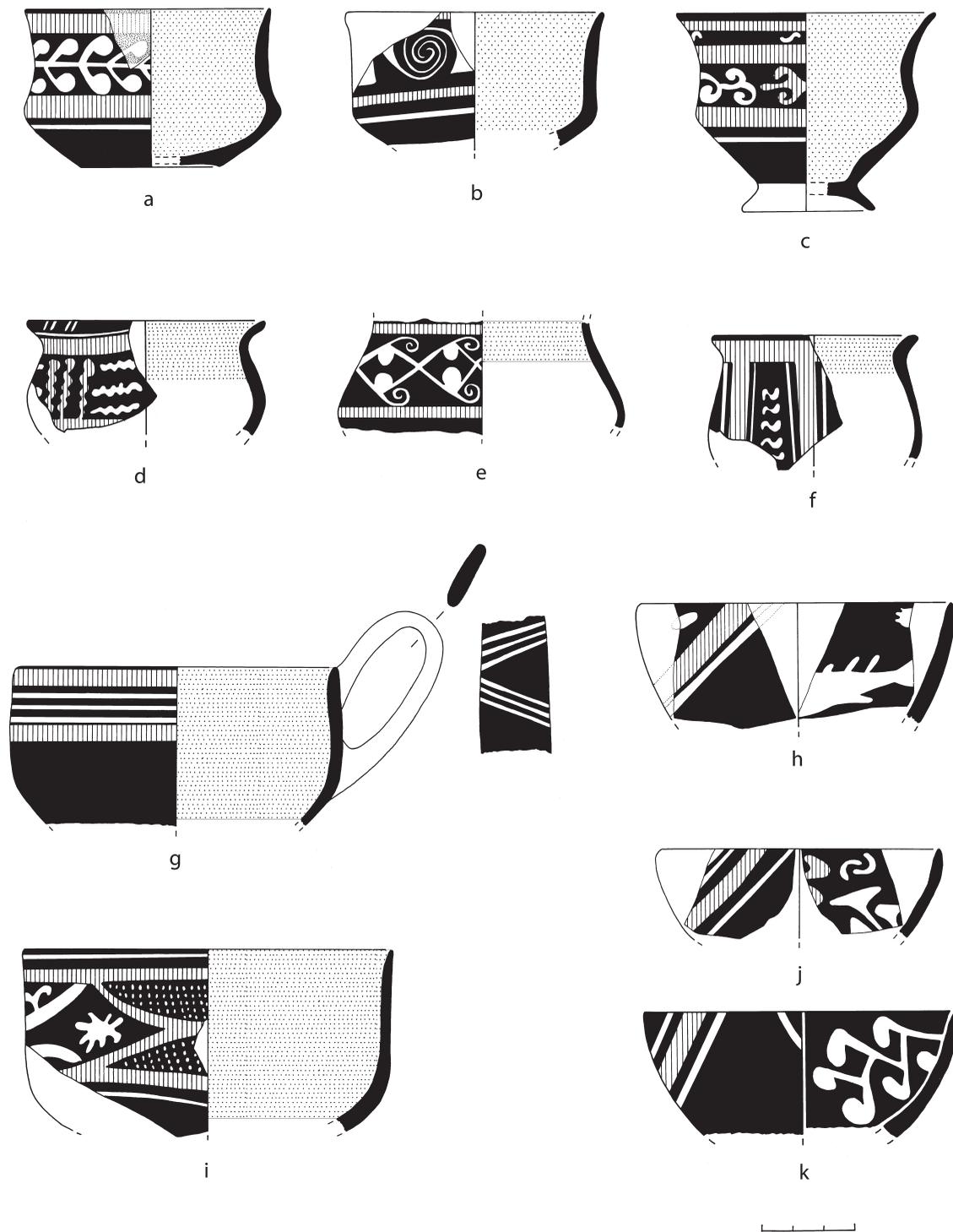


Fig. 10. Polychrome Ware: *a*, carinated cup (L160); *b*, angular cup (L367); *c*, S-profile cup (L368); *d*, S-profile cup (L35); *e*, S-profile cup (L674); *f*, S-profile cup (L38); *g*, angular cup (L636); *h*, round cup (L309); *i*, round cup (L685); *j*, round cup (L638); *k*, round cup (L28).

line accentuated or shadowed by one or more parallel but thinner white lines or bands (see figs. 10–12). The spaces formed by the lines, if decorated, contain many of the same elements of White-on-Dark Ware: J-spirals, S-spirals, C-spirals, dotted bands, and foliate bands in white or red. Occasionally, white is added to the red.

Added red is the distinguishing characteristic of Polychrome Ware, but the group includes two significant departures from the White-on-Dark Ware tradition. The first is the complexity of design. White-on-Dark Ware examples tend to focus on and accentuate isolated and individual designs or motifs, while Polychrome Ware displays much more repetition or redundant patterning, a pleonastic filling of the linear zones with ornamentation, bringing the ware group closely in line with MacGillivray's Woven Style at Knossos (see figs. 10a, c–e, i, 11b, e, l).⁴¹ Additionally, the individual designs form motifs that are more complex and interconnected than on White-on-Dark Ware versions. This is especially obvious in the case of J-spirals, which form antithetical (and torsional) interlocking chains of decoration, and fleur-de-lis patterns or linked-disc spirals that look like stylized foliate bands (see figs. 10a, e, k, 11b). Dots, crosses, and simple S-spirals or C-spirals are regularly used as filler between dominant geometric or pictorial motifs, while flowers, wavy lines, dots, and crosses can be bunched together to form discernable clusters of decoration. The individual designs can be white or red or form alternating white and red patterns.

Another difference is in the proliferation of floral motifs, including the Alternating Floral Style.⁴² Elaborate and varied floral patterns include schematic foliate bands, as well as pictorialized versions, and even some pictorial and naturalistic forms (see figs. 11e, f, h, l, 12a). While alternating red and white petals, radiating sprays, and individual flowers are common, some red examples use added white to accentuate the form. Floyd has argued that Alternating Floral Style workshops in the east could have affected not only central Cretan traditions but also ultimately the naturalistic and representational motifs that were to reemerge as the LM I Floral Style.⁴³ Indeed, there is

much to connect Knossos and Petras in both the MM IB forms and the use of polychromy. Do these connections mask economic, sociopolitical, or ritualized interaction between eastern and central Crete in this early palatial phase?⁴⁴

Spatter Ware

Spatter Ware seems to be a particularly local Petras creation and sufficiently abundant and consistent in its range of forms to constitute a definable Protopalatial fine ware group. The light-colored surface slip was treated by splattering the interior, exterior, and bottom of vessels with a reddish-brown or dark brown slip (see fig. 5d, table 2). Different from merely dabbing the slip haphazardly onto the surface, the Spatter Ware application results in radiating splashes rather than blobs or trickles. The dark brown and reddish-brown color of the decoration contrasts vibrantly with the tan, buff, or pasty white surface slip. The most distinctive fabric in Spatter Ware is the local Petras buff.⁴⁵ The vessel types are typically carinated cups, straight-sided cups, conical cups, tumblers, and saucers (figs. 13–15). Beveled cups and bridge-spouted jars are possible forms in the group (see table 3, fig. 13e).

Like some aspects of abstract expressionism, the design principle here is decidedly simple. The potter sought the striking contrast of the rich brown color of the slip against the pale surface or ground slip (see fig. 5d). Even though some drips were inadvertent, especially on the vessel interior and bottom, the process was controlled, and the desired effect was the result of the slip's impact on the wall of the vessel, causing a radiating spray of spikes and droplets. While sometimes the thickness of the slip itself, or the porosity and texture of the surface, might cause clumping, the intention was not to drag, dab, drip, or trickle the slip onto the surface. Unlike the usual dipped, blob, or trickle decoration, the overall effect of Spatter Ware is dynamic and vivid in its sense of movement and its seemingly random complexity. It was likely produced by dipping the hand or brush into the slip solution and then abruptly shaking it at the stationary vessel; the potter then carefully turned and inverted the pot

⁴¹ MacGillivray 1998, 59–60.

⁴² Walberg 1983, 59–61; 1987b, 283; MacGillivray 1987, 276; 1990, 433; 1998, 59–61, fig. 2.3[1]; Floyd 1997; see also recent discussion in Schoep 2006, 43–4.

⁴³ Floyd 1997.

⁴⁴ One wonders if an Alternating Floral Style S-shaped cup (or squat, rounded bridge-spouted jar) recovered from the fill under the paving on the south front of the palace (Morigliano and Wilson 1996, 14–15, fig. 8[P7]) was brought to

Knossos by an elite representative from somewhere in eastern Crete while participating in a feast that included not just individuals from Pediada and Phaistos but also some from further afield.

⁴⁵ Day 1995, 153–54; Tsipopoulou 1995, 31. The other dominant fabric type in the ware group is pink-buff, which resembles the Petras buff (cf. Day 1995, 165), but has a pinkish-gray core, white to buff slip, and visible phyllite, quartz, quartzite, and mica inclusions.

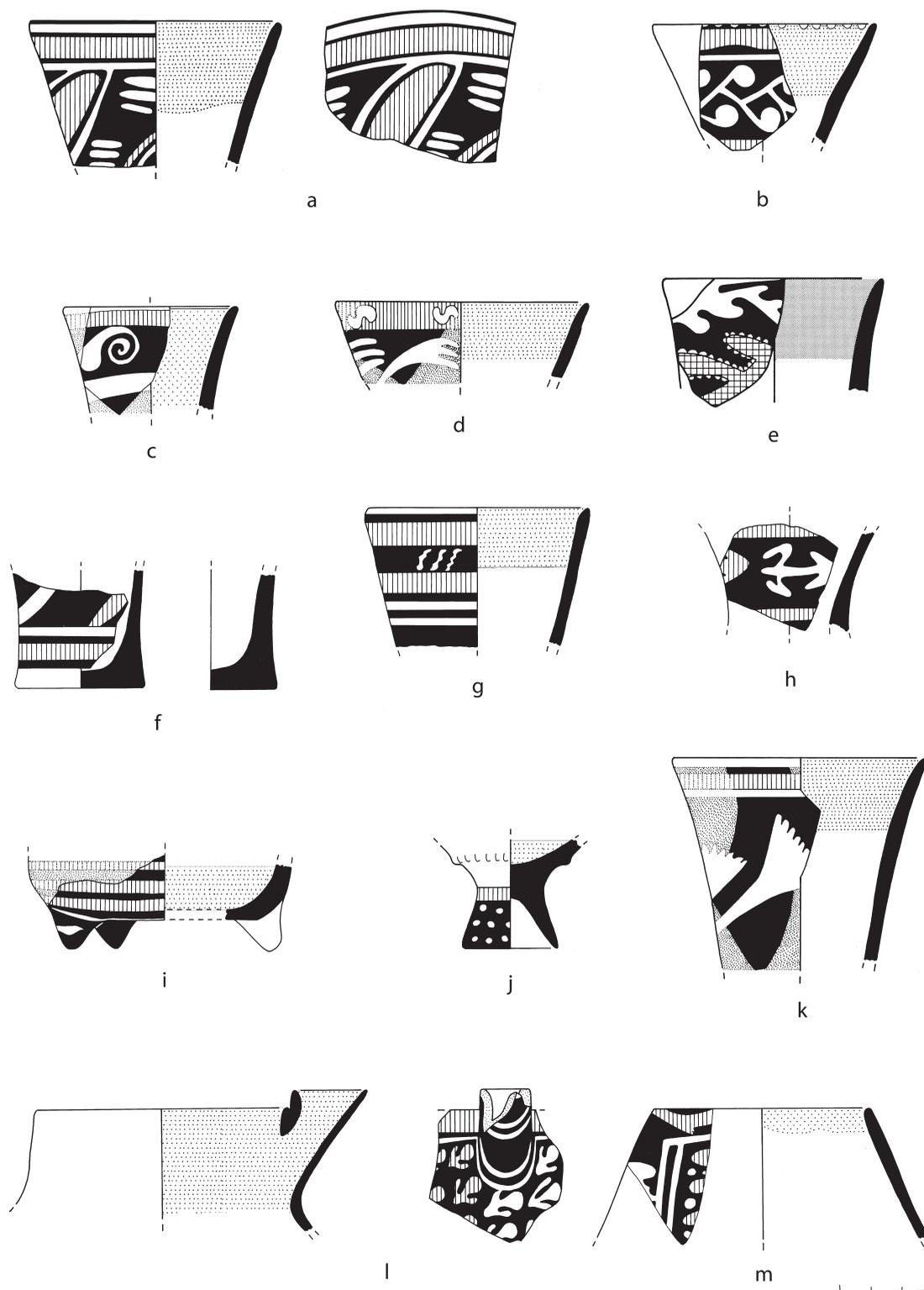


Fig. 11. Polychrome Ware: *a*, tumbler (L62); *b*, tumbler (L36); *c*, tumbler (L169); *d*, tumbler (L34); *e*, tumbler (L428); *f*, tumbler (L619); *g*, tumbler (L640); *h*, tumbler (L639); *i*, tripod beveled cup (L662); *j*, goblet (L642); *k*, tumbler (L33); *l*, bridge-spouted jar (L175); *m*, bridge-spouted jar (L411).

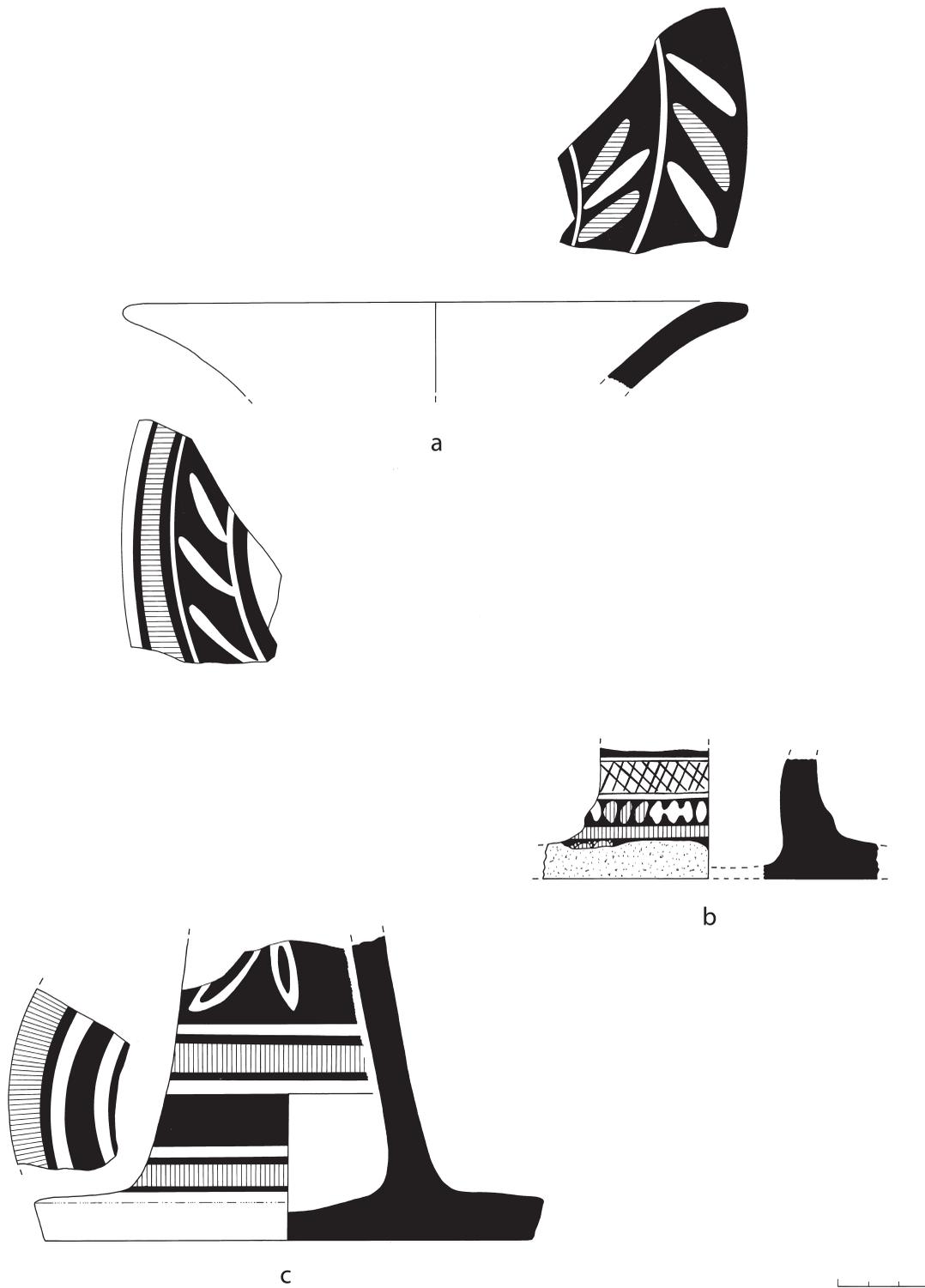


Fig. 12. Polychrome Ware: *a*, saucer or stand (L659); *b*, fruitstand (L643); *c*, fruitstand (L279).

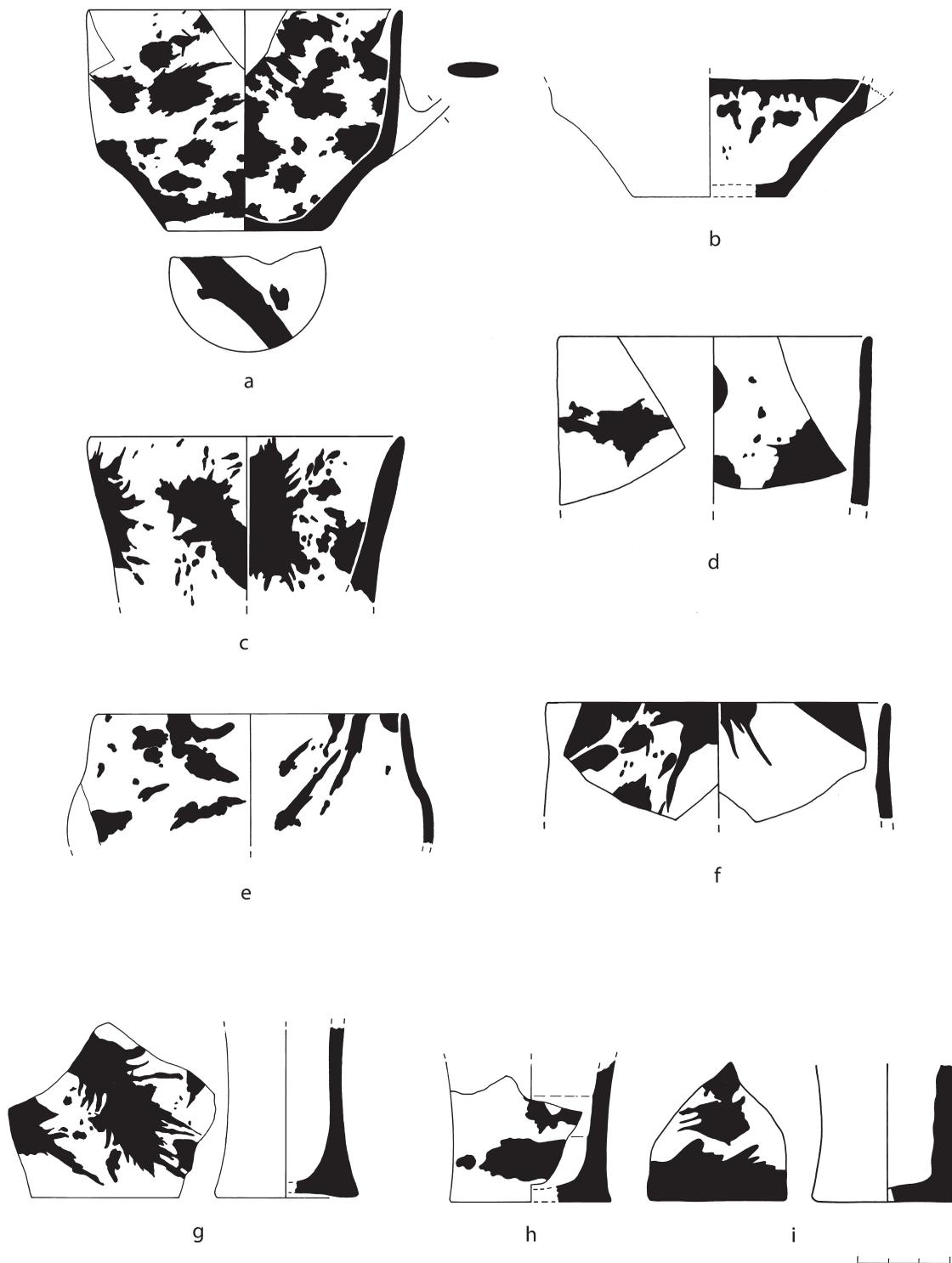


Fig. 13. Spatter Ware: *a*, carinated cup (L1); *b*, carinated cup (L629); *c*, straight-sided cup (L18); *d*, straight-sided cup (L7); *e*, bridge-spouted jar or round cup (L398); *f*, round or carinated cup (L9); *g*, tumbler (L210); *h*, tumbler (L691); *i*, tumbler (L432).



Fig. 14. Spatter Ware: *a*, tumbler (L391); *b*, tumbler (L250); *c*, conical cup (L661); *d*, conical cup (L390); *e*, conical cup (L183); *f*, conical cup (L144); *g*, conical cup (L610); *h*, conical cup (L609); *i*, conical cup (L394); *j*, conical cup (L660); *k*, conical cup (L2); *l*, conical cup (L17).

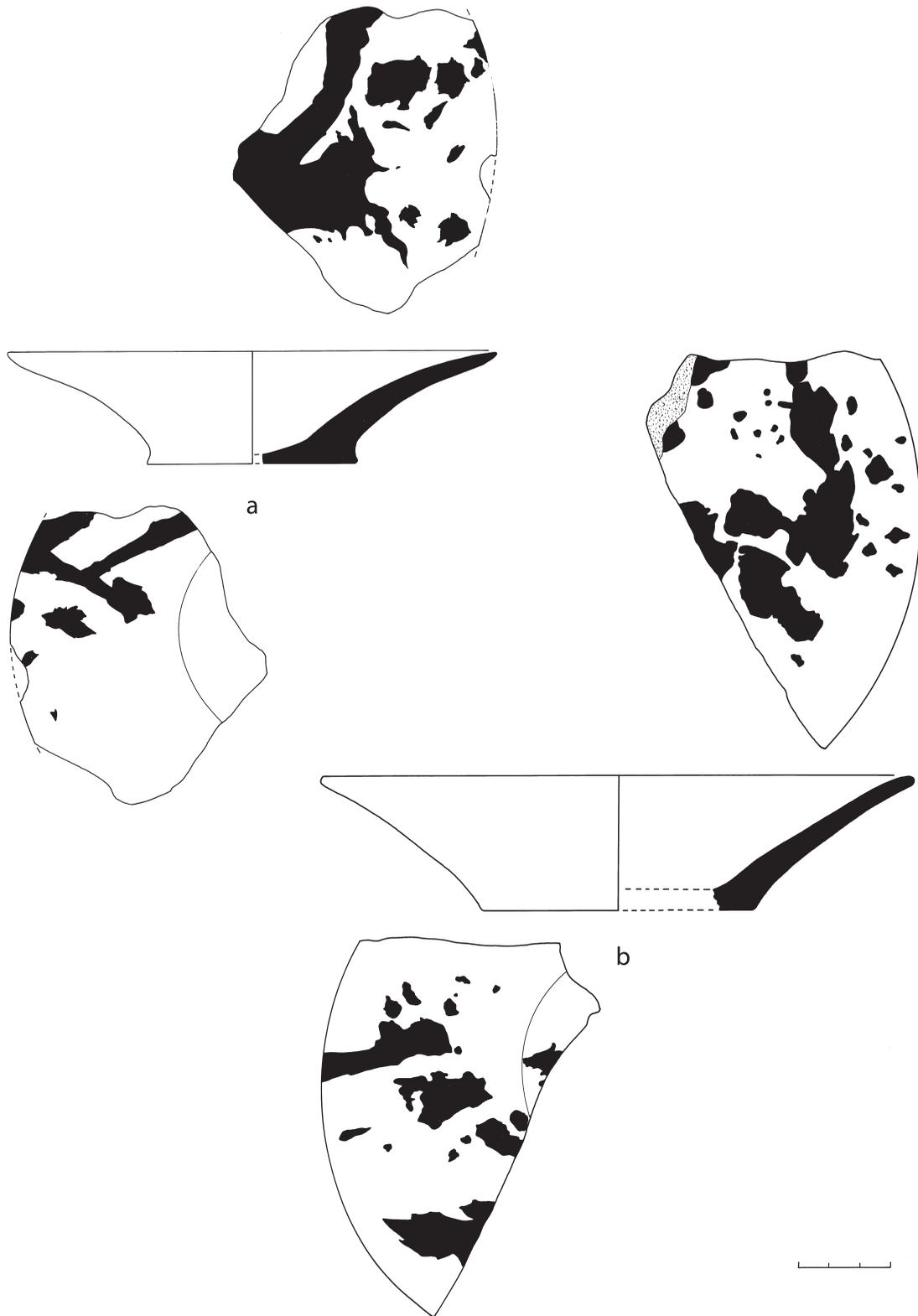


Fig. 15. Spatter Ware saucers: *a*, L181; *b*, L43.

and repeated the process (see fig. 14i, k). To maximize the visual effect of the color and to avoid overlapping the splashes—causing occasional blobs and drips—the potter had to visualize the effect on the available surface area, controlling the distance between the brush and the vessel, the amount of slip, and the angle and direction of application. Another local variation is the White-on-Dark Spatter Ware (fig. 16), which, perhaps because of the qualities of the paint, produces generally less effective splashlike results, although the contrast of the white on a dark background is striking. The technique is identical, but the dynamic is weaker because of the thickness of the paint. Clumping is more common. The white paint is calcium- and aluminum-based, a characteristic of the other White-on-Dark forms from the Petras and Palaikastro areas.

So where does Spatter Ware fit into the Protopalatial typology? As defined by Betancourt, Dark-on-Light Ware vessels probably do not constitute a proper or definable ware group but rather comprise a loosely associated style, particularly in eastern Crete, of simple linear, floral, geometric, trickle, and blob decoration that is added directly to a plain ground or light-colored slip. Plumes, disc spirals, and blob and trickle designs predominate.⁴⁶ Walberg's study of provincial decorative motifs characterizes the trickle pattern as a feature of "simple domestic vessels,"⁴⁷ and Betancourt has described the style as lacking "the artistic excellence of some of its contemporaries . . . a quiet backwater from the same time as the more exuberant Kamares Ware tradition."⁴⁸ Thus, the design elements of Spatter Ware, as characteristic of the Dark-on-Light Ware repertoire, have come to represent in the literature a distinctly pedestrian, nonpalatial, utilitarian, and quintessentially provincial classification—the rustic fare of the countryside. When compared with the precision and syntactic complexity of Kamares Ware, the apparent simplicity, randomness, and accidental quality of many Dark-on-Light Ware pieces have created a qualitative opposition, assuming a sociopolitical as well as geographic distance from Kamares Ware's origin of production and context of consumption. The context and shape range of Spatter Ware, as defined here, requires a reconsideration of this qualitative typology.

Spatter Ware is sufficiently consistent in design and application to warrant a separate ware group

designation. It is also important to recognize that its representative forms mirror those in Polychrome, White-on-Dark, Rough-Burnished, and Monochrome Wares as the principal groups comprising the early Protopalatial drinking sets (see table 3). While the broader Dark-on-Light Ware category includes types that employ a variety of seemingly sloppy or random surface treatments (e.g., blobs, trickle, drips, irregular blotting, banding), Spatter Ware is different in the handling of the surface in that it is consistent in its application and more striking in its overall visual effect.

Spatter Ware is rare outside Petras. Possible examples exist in MM I–II at Knossos, Kommos, Malia, Palaikastro, and Mochlos,⁴⁹ but it is unlikely that the products traveled far outside the Siteia Valley.⁵⁰ That said, the effect and spatial dynamic of the technique may be related to an island-wide tradition of dabbing, stippling, and speckling, usually taken as part of the spirited Minoan practices of interpreting, imitating, or translating the effects of natural forms (types of stone, geological formations, or other natural occurrences such as ostrich eggs).⁵¹ An interesting comparison can be drawn between the Lakkos Spatter Ware and Warren's Jackson Pollock Style in LM IB from Knossos, which shows a similar treatment of the vessel surface.⁵² Even though Warren's Jackson Pollock Style consists of a much more dense and fine spotting and speckling than is evident on the Spatter Ware vessels, the technique and results are similar. In the Lakkos examples, the decoration is expressive, emphasizing a continuous or unending surface; the eye is drawn not only across the vase to the profile but also over the rim and base to the interior and underside of the vessel. There is neither a lack of skill nor a disregard for design. The thickness of the slip, the spacing of the splatters, the treatment of the ground slip, and the method of execution were carefully calculated to maximize the desired result and the use of the surface space. While the range of vessel forms is identical to that of Polychrome Ware and White-on-Dark Ware, the wide-splaying bowl or saucer appears to be most abundant in Spatter Ware.

Rough-Burnished Ware

Rough-Burnished Ware is used primarily for very large conical cups, one-handled cups, round cups with a distinctive thickened and sometimes offset base,

⁴⁶Betancourt 1977, 1985.

⁴⁷Walberg 1983, 64.

⁴⁸Betancourt 1985, 87.

⁴⁹Pelon 1970, 31, pl. 39; Detournay 1975, 74, pl. 26; MacGillivray et al. 1992, 132, fig. 10[2]; Stürmer 1993, 181; Knappett 2003, 46, fig. 3.2[37–8]; 2006; Poursat and Knappett 2005,

117–18, fig. 32[6].

⁵⁰Links with Palaikastro may ultimately provide the most useful context for stylistic influence (Knappett 2006).

⁵¹See discussion in Walberg 1983, 25, 55–7; Warren 1996, esp. 48–9.

⁵²Warren 1996.

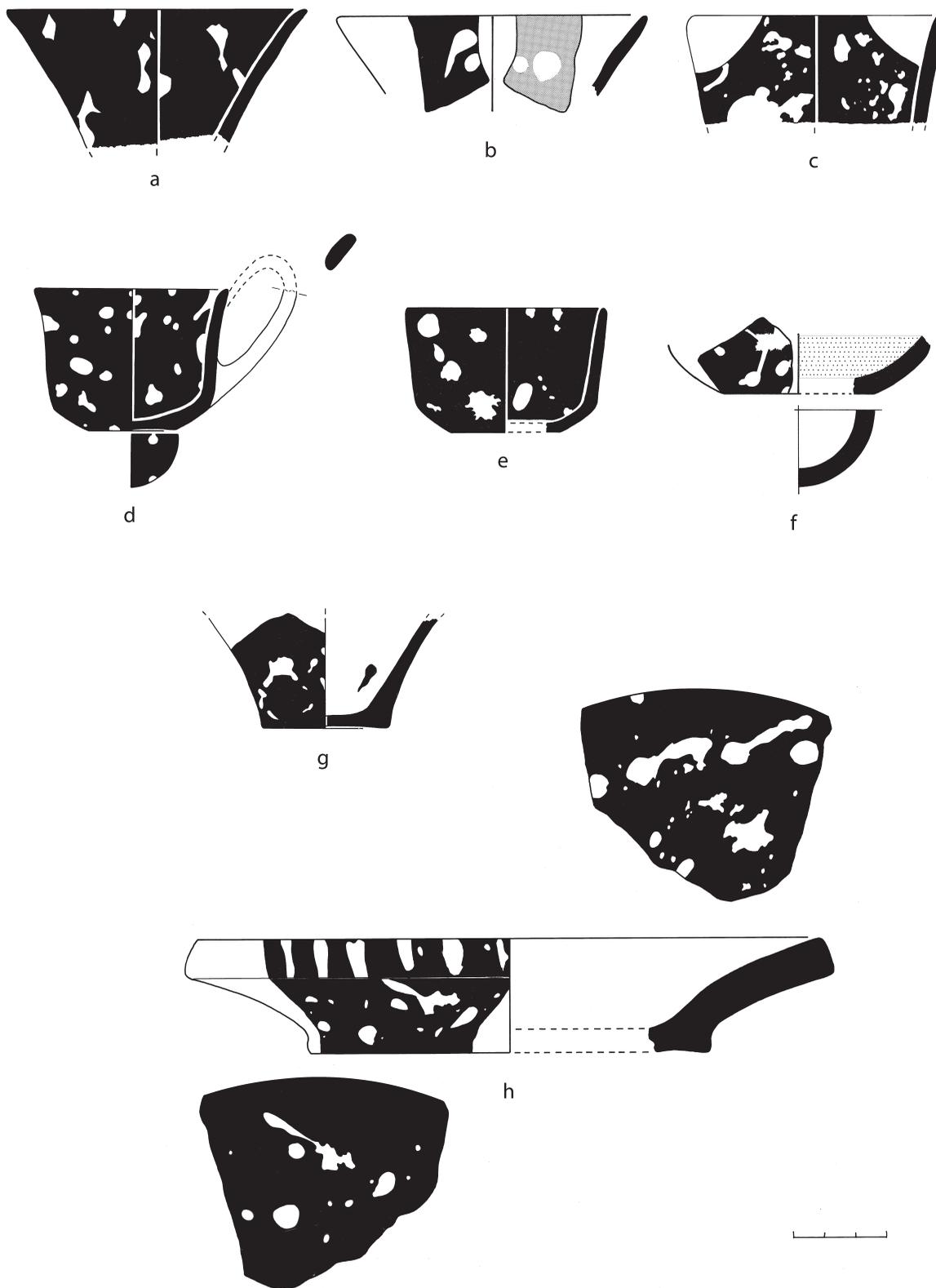


Fig. 16. Spatter Ware (White-on-Dark Ware): *a*, tumbler (L90); *b*, conical cup (L438); *c*, straight-sided cup (L348); *d*, beveled cup (L326); *e*, beveled cup (L349); *f*, round cup (L435); *g*, jug base (L663); *h*, saucer (L43).

angular cups, beveled cups, saucers, fruitstands, and bridge-spouted jars (figs. 17, 18; see table 3). The exterior surfaces are hand-smoothed or burnished, with a washy slip similar to coarse Dark/Red Wash Ware (see fig. 5e, table 2). The interiors of open forms are lightly or heavily burnished, usually with visible burnishing marks that are more regular and concentric in the center of the base and that become increasingly irregular and lighter on the upper body toward the rim. In some cases, the vessel interior is covered with a very thick slip, the burnish producing a hard, polished surface (see fig. 5f). As with Spatter Ware, the surface treatment appears irregular and almost random, but there is a consistent and controlled handling of the vessel, with subtly unique and decidedly diverse individual results. While there are definitely wheel-thrown forms, the majority of conical, one-handled, and round cups are coil-built; many show the irregular horizontal smoothing marks or striations on the rim exterior, the result of coil-building and rotation-finishing.⁵³ The round cups are particularly distinctive (see fig. 17d–g). They have fairly straight rims and thick, heavy, and uneven bases; a deep depression that forms a sharp, shelllike transition to the upper wall is evident on the interior of the bases.

The thickness of the burnished slip, especially on cup interiors (see fig. 5f), may indicate that Rough-Burnished Ware forms were used for special purposes or the consumption of certain kinds of liquids appropriate to particular ceremonies or drinking customs. There could, therefore, be a practical function of the selective burnishing—the aim of making the vessel wall less permeable to whatever liquid was consumed. This specialization accords well with Knappett's recent analysis of forms of Protopalatial drinking vessels in which he outlines cultural constraints that might inform the use context of specific kinds of vessels, including the consumption of different drinks such as water, wine, or even hot liquids.⁵⁴ The hieroglyphic sign 041 was found incised on the exterior of two such Rough-Burnished Ware conical cups, evidence that could support a special use of vessels in the group (see fig. 17h, i).

The Rough-Burnished Ware group has not been identified securely outside Petras, and the phyllite-quartzite fabric appears at home in the Siteia Valley (see table 1).⁵⁵ The coarse appearance of many of the

coil-built forms, however, introduces the possibility that in old excavation contexts, sherds might not have been saved or selected for discussion along with fine painted wares. In general, the Rough-Burnished Ware cups echo characteristics of the handmade conical and round *skoutelia* from the transitional Patrikies and early phase I groups at Phaistos, especially in the rough surface treatment and the finger impressions at the base.⁵⁶ The profiles of the round cup with the raised or offset base, the one-handled cup, and the conical cup are similar to MM IA traditions at Phaistos and Knossos; indeed, at Knossos, Momigliano's one-handled cups and footless goblets are close parallels for many of the Lakkos coil-built forms.⁵⁷ Closer to home, there is a likely parallel at Palaikastro that Dawkins called variously Polished Thick Ware or Thick Polished Brown Ware. According to Dawkins' description, this is a distinctive "handmade" ware, "the clay being of a ruddy brown and containing many particles of some white substance. The polished surface was of a rich chestnut-brown colour."⁵⁸ The most common form reported at Palaikastro seems to have been "large dishes," perhaps meaning saucers or fruitstands, which are well represented in the Lakkos Rough-Burnished Ware category (see fig. 18f, h, i). The Thick Polished Brown Ware is found along with developed Polychrome Ware (Kamaraes Ware) in deposit G3, which is contemporaneous with the Lakkos.⁵⁹

Monochrome Ware

Monochrome Ware (black, red, and mottled black and red) vessels were produced in the same fabrics as White-on-Dark Ware and Polychrome Ware, but the surface often has a dull black or lustrous red slip (fig. 19). While the surface color is similar to the dark ground of White-on-Dark Ware and Polychrome Ware, it often appears to have been thinly applied and frequently does not cover the entire exterior of the vessel, leaving a ring of slip around a reserved disc on the bottom (see fig. 19i). Evidence of wheel-throwing and finishing is most apparent in Monochrome Ware examples where the slip is not as thick or resilient as it is in the painted wares. The forms generally mirror those in White-on-Dark Ware and Polychrome Ware, although beveled cups are very rare (see fig. 19c), as in the case of Rough-Burnished Ware (see fig. 17c). Straight-sided cups, however, which are sparse in the

⁵³ Knappett 1999b, 116.

⁵⁴ Knappett 2005, 142.

⁵⁵ Day 1995, 165.

⁵⁶ Levi 1976, pls. 16, 35; Levi and Carinci 1988, 234–35, pl. 99.

⁵⁷ See Momigliano (1991, 246–50, figs. 30, 31) for the type 2 footless goblet and type 2 one-handled cup.

⁵⁸ Bosanquet et al. 1902–1903, 300.

⁵⁹ See Andreou (1978, 80) who connects this ware to Pyrgos II.

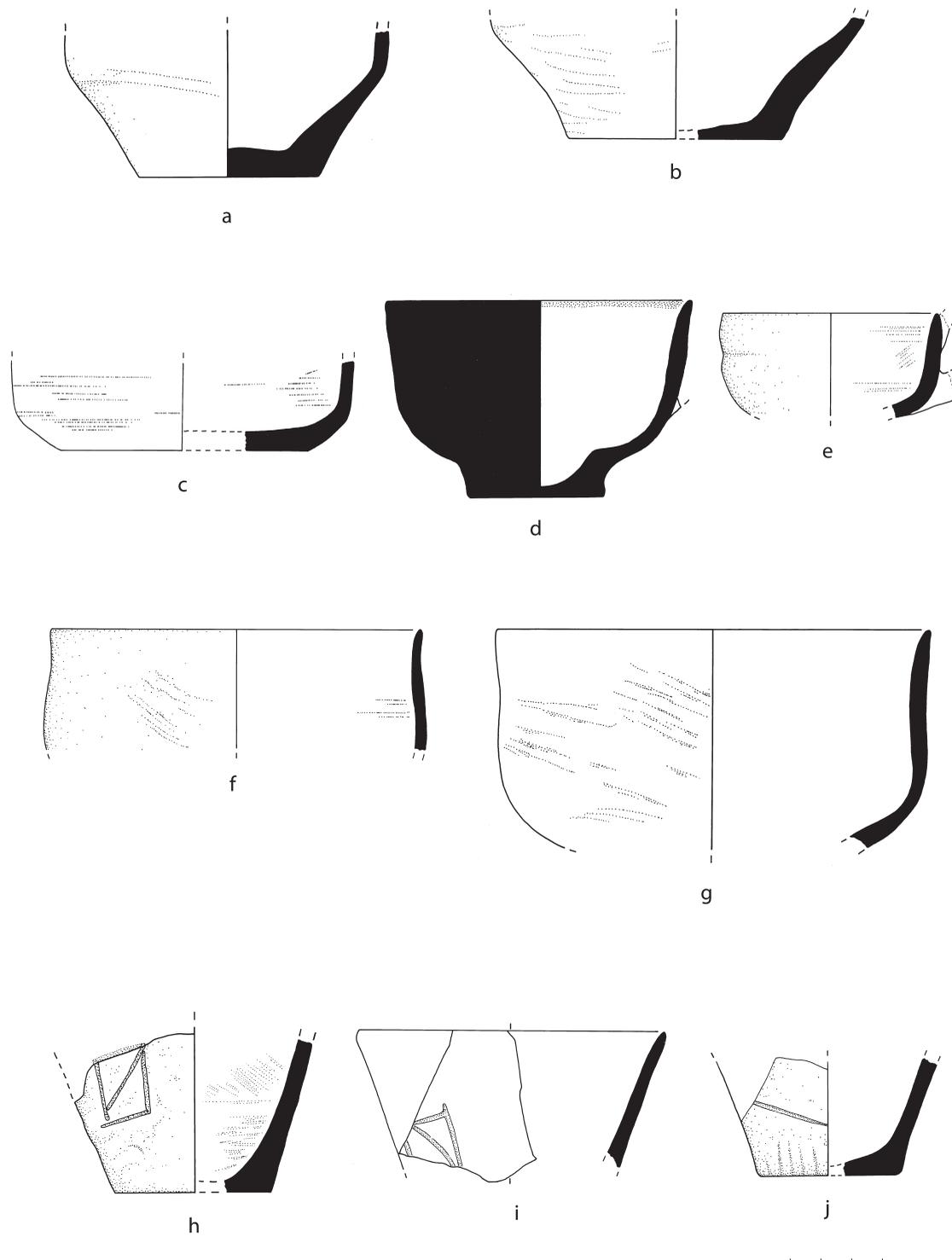


Fig. 17. Rough-Burnished Ware: *a*, carinated cup (L25); *b*, carinated cup (L26); *c*, beveled cup (L673); *d*, round cup (L19); *e*, round cup (L389); *f*, round cup (L631); *g*, round cup (L23); *h*, conical cup (L50); *i*, conical cup (L215); *j*, conical cup (L404).

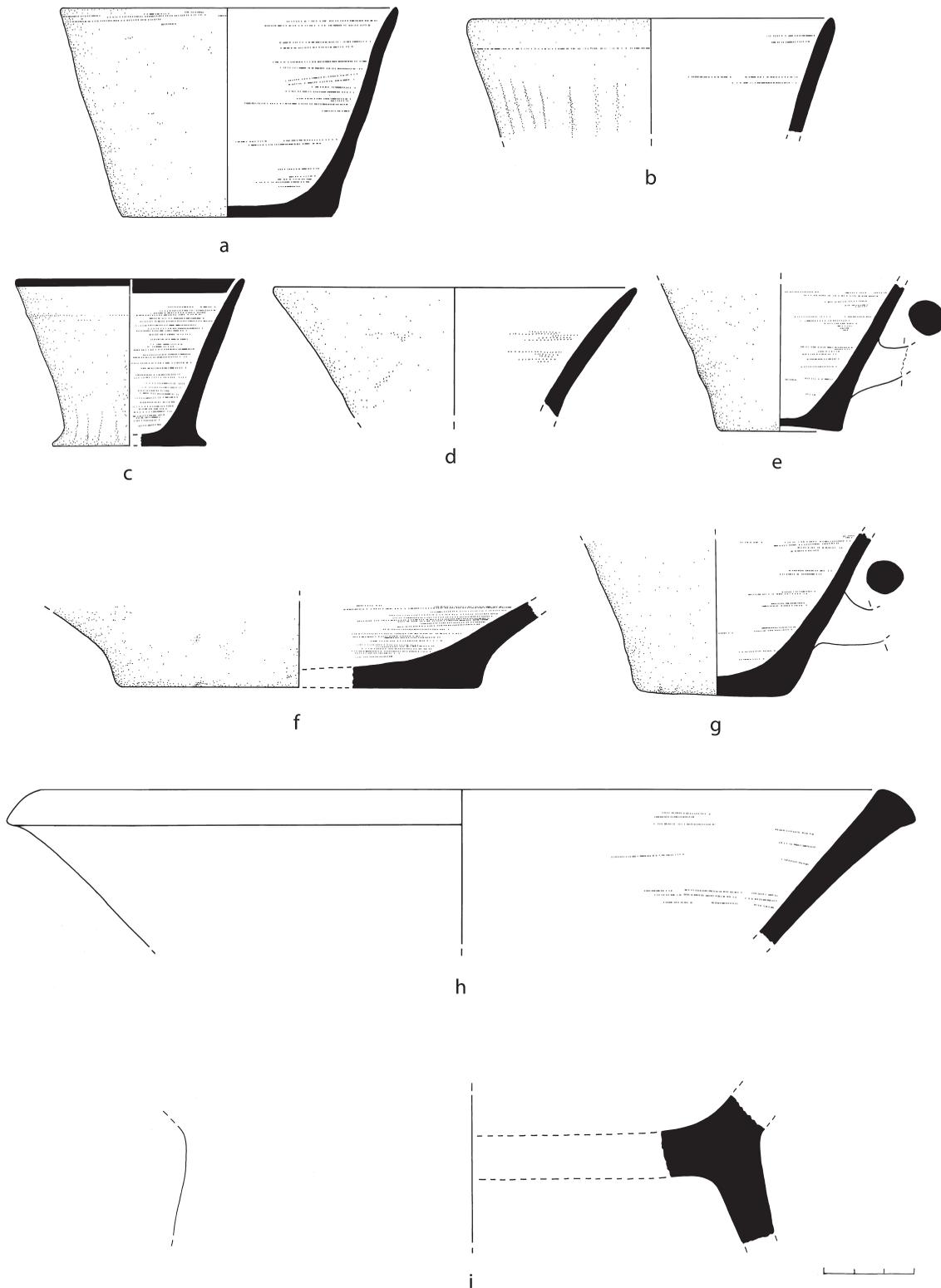


Fig. 18. Rough-Burnished Ware: *a*, straight-sided cup (L598); *b*, straight-sided cup (L600); *c*, conical cup (L340); *d*, tumbler (L70); *e*, one-handed cup (L155); *f*, saucer (L303); *g*, one-handed cup (L156); *h*, fruitstand (L678); *i*, fruitstand (L408).

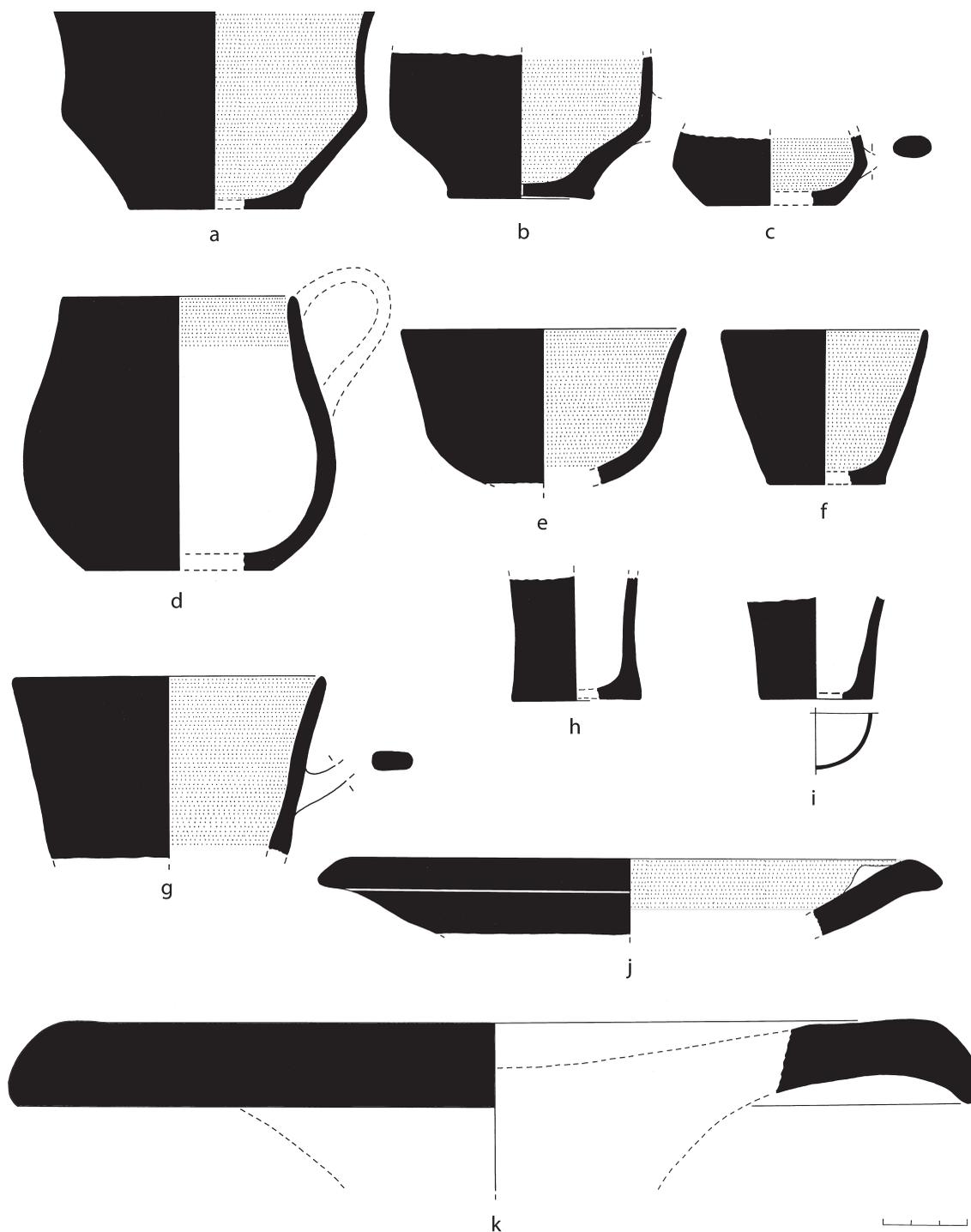


Fig. 19. Monochrome Ware: *a*, carinated cup (L608); *b*, carinated cup (L682); *c*, beveled cup (L128); *d*, round cup (L138); *e*, round cup (L135); *f*, conical cup (L137); *g*, straight-sided cup (L132); *h*, tumbler (L616); *i*, tumbler (L430); *j*, fruitstand (L682); *k*, fruitstand (L407).

other ware groups, are more common in Monochrome Ware than in any other category (see fig. 19g).

Dark-on-Light Ware and Blob Ware

Dark-on-Light Ware is found in pink-buff, Petras buff, and Mirabello fabrics, and the decoration has the same general color range as Spatter Ware (see tables 1, 2). Simple banding and pendant arcs are the most common identifiable decoration, although plumes, disc spirals, isolated discs or ovals, and diagonal lines or hatching are also present.⁶⁰ An irregular “seaweed” pattern—the *capsules d’algues*—appears on a jug, a bridge-spouted jar (fig. 20e), and a tumbler. This distinctive design, which Walberg has linked to her phase 1 (“irregular dots,” decorative element no. 22[28–33]), is known at sites in eastern Crete, including Palaikastro, Malia, and Pyrgos.⁶¹ Even if certain regular patterns (e.g., dots or disc spirals) are present and could constitute separate ware groups, the Dark-on-Light Ware category as a whole may be too varied and inconsistent in its range of design elements to comprise a single distinctive ware.⁶² The category as used here is therefore tentative and imprecise, since sherds were frequently not preserved well enough to indicate a specific decorative pattern or design element. Conical cups, round cups, tumblers, and saucers are present, but the majority of examples are large storage vessels (pithoi, pithoid and hole-mouthed jars, oval-mouthed amphoras), serving vessels (bowls, lekanes), and pouring vessels (jugs and bridge-spouted jars) (see fig. 20). Given that there is no consistent range of decorative features that can be applied to the usual series of drinking and pouring forms, Dark-on-Light Ware might be excluded from the regular groups of drinking/dining sets (see table 3). The most common vessel types are pithoi, jugs, and lekanes, suggesting that the ware could have been reserved for general service functions.

Another type of Dark-on-Light Ware with a blob and trickle decoration appears in conical cups (fig. 21a–c), tumblers, small jugs, and pithoid jars. Vessels with blob and trickle decoration are rare in the assemblage, and with the exception of large jars, they seem to have been wheel-thrown; rilling is visible on the exterior surfaces. The effect of the surface treatment is very different from that on Spatter Ware. The

slip is haphazardly dabbed onto the surface, forming individual splotches or blobs or irregular and runny streaks of color.⁶³

Plain Ware

Plain Ware, like Dark-on-Light Ware, is a tentative and imprecise designation because sherds without any discernable paint or slip were also counted in the plain category. Examples have the same fine pink-buff fabric as Spatter Ware and Dark-on-Light Ware, some with a well-preserved but thin pink to buff slip. Conical cups and saucers are the most frequently discernable forms (see fig. 21d, g). Saucers and stands are coil-built, while cups and small jugs appear to be wheel-thrown.

Buff-Burnished Ware

An unusual feature of the Lakkos is Buff-Burnished Ware. The fabric is pink-buff (semi-fine) and ranges in color from light brown to pink buff (occasionally gray) with a thick, hard slip that is usually light brown to gray (see tables 1, 2). The interior and exterior surfaces of open vessels show a heavy and even burnish. With the exception of a single, large conical cup and jug base (see fig. 21e, f), all examples are evidently coil-built. Large bowls (including an example in Mirabello fabric) and lekanes are identifiable forms. A large baggy jar with wide strap handles (see fig. 21h) is an unusual form similar to examples from Pyrgos II deposits.⁶⁴

White-Slipped Ware

The rarest group in the Lakkos assemblage is White-Slipped Ware. The fabric is fine pink and has a distinctive powdery white slip. A few microscopic red and black phyllites and small, round voids are occasionally apparent. The only two examples are fragments of a conical cup and bowl. The ware has a few published parallels at Palaikastro, Pyrgos, and Malia.⁶⁵

Dark/Red Wash Ware

Dark/Red Wash Ware in the phyllite-quartzite fabric is the most common coarse utilitarian ware in the Lakkos, used primarily for cooking dishes, tripod cooking pots, jars, lekanes, lamps, bowls, saucers, pithoi, and fruitstands (figs. 22, 23; see table 3). Examples have a characteristic thin, washy, reddish-brown slip, and

⁶⁰ See Betancourt (1977; 1985, 85–9) for the characteristic style of the Middle Minoan Dark-on-Light Ware; see also Walberg 1983, 42–6.

⁶¹ Walberg 1983, 55–6; Knappett 2006.

⁶² Betancourt (1985, 85–9) has argued that the looser term “style” might be more appropriate.

⁶³ See Andreou 1978, 90; Walberg 1983, 64–5; Betancourt 1985, 85–6.

⁶⁴ G. Cadogan, pers. comm. 1991.

⁶⁵ Cadogan 1978, 76, fig. 15; Poursat and Knappett 2005, 36; Knappett 2006.



Fig. 20. Dark-on-Light Ware: *a*, tumbler (L211); *b*, tumbler (L66); *c*, conical cup (L257); *d*, bridge-spouted jar (L439); *e*, bridge-spouted jar (L336); *f*, conical cup (L242); *g*, round cup (L596); *h*, oval-mouthed amphora (L421); *i*, bridge-spouted jar (L40).

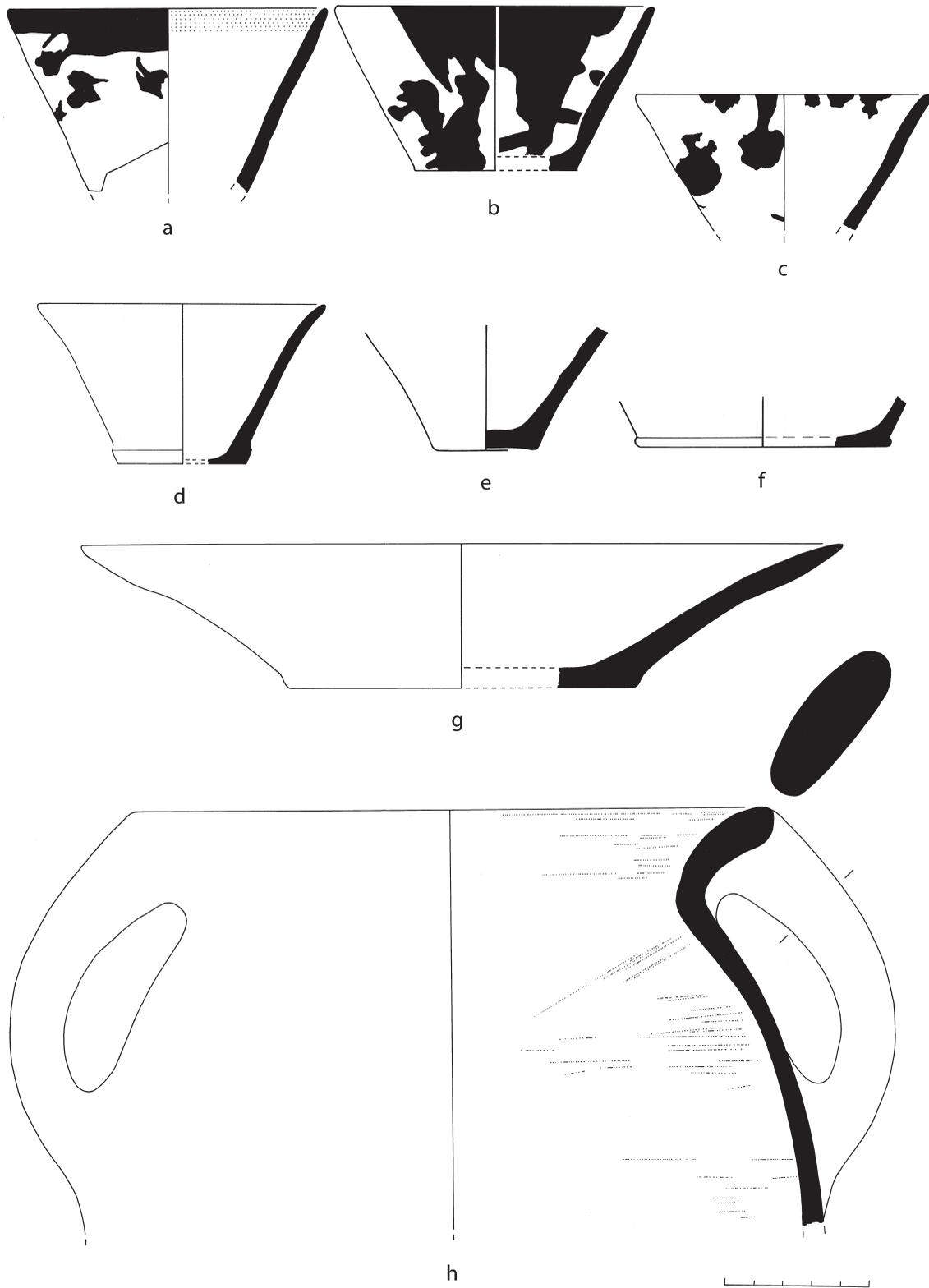


Fig. 21. Various wares from the Lakkos deposit: *a*, Dark-on-Light (Blob) Ware conical cup (L101); *b*, Dark-on-Light (Blob) Ware conical cup (L100); *c*, Dark-on-Light (Blob) Ware conical cup (L6); *d*, Plain Ware conical cup (L328); *e*, Buff-Burnished Ware conical cup (L480); *f*, Buff-Burnished Ware jug (L464); *g*, Plain Ware saucer (L265); *h*, Buff-Burnished Ware baggy jar (L414).

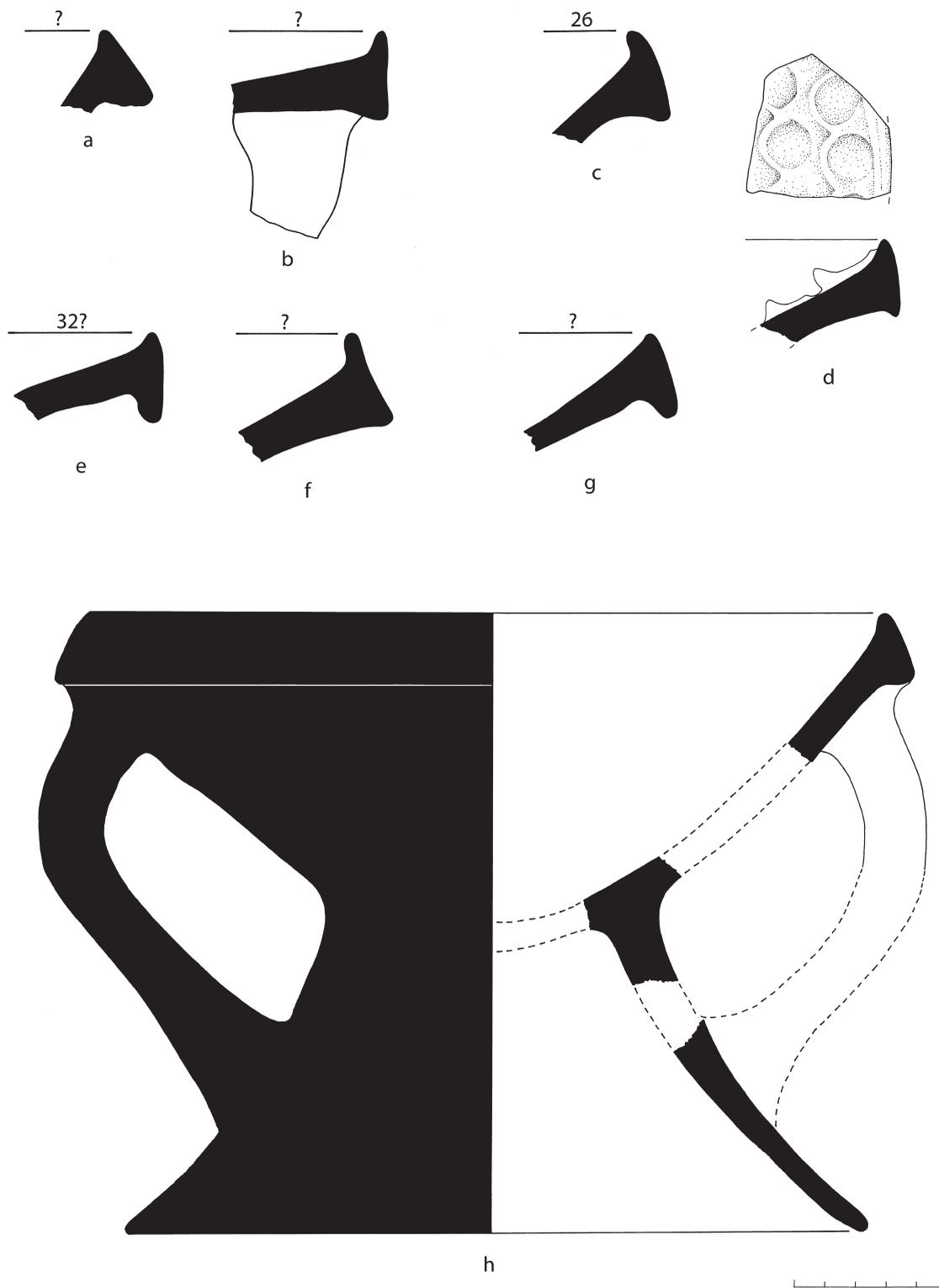


Fig. 22. Dark/Red Wash Ware fruitstands: *a*, L573; *b*, L574; *c*, L575; *d*, L603; *e*, L577; *f*, L576; *g*, L578; *h*, L284.

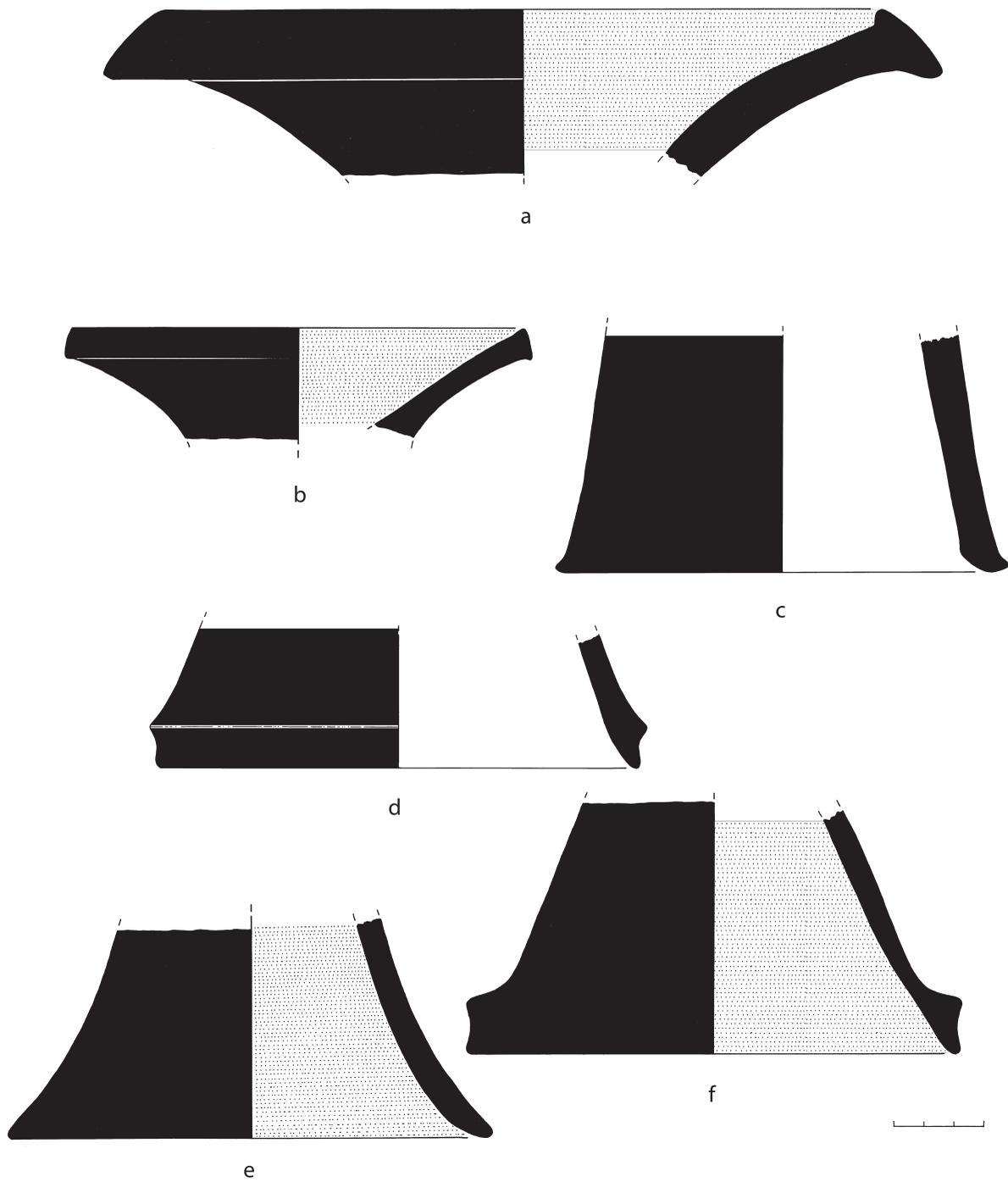


Fig. 23. Dark/Red Wash Ware fruitstands: *a*, L82; *b*, L87; *c*, L275; *d*, L274; *e*, L86; *f*, L85.

surfaces look very similar to unburnished exteriors on Rough-Burnished Ware cups and stands (see tables 1, 2). While the distinction between Rough-Burnished Ware and Dark/Red Wash Ware is defined principally by the presence of burnishing, especially on the interiors of cups and stands, it is possible that some examples of saucers, spouted jars, jugs, and even fruit-stands might belong in the Rough-Burnished Ware category. Stands usually have an articulated or overhanging rim (see figs. 22, 23a, b) and a wide-splaying or flaring base (see fig. 22h); some varieties have a sharply conical base (see fig. 23c–f) with a distinctive rib at the bottom or near the foot. Some rims (see fig. 23b) may belong to tripod stands.

Cooking Ware

Cooking Ware is represented in the quartz-quartzite fabric. The forms represented are evidently very large tripod cook pots and trays, cooking dishes, and the straight rims of what might be lekane or cooking pots. No whole profiles of vessels in the group were reconstructed.

DRINKING/DINING SETS

The designation of a drinking or dining set as a group of forms used by an individual or group is a thorny issue, entirely dependent on the scale and context of analysis. The qualification of the set as indicating a specific consumption activity or social unit requires an interpretive framework. A drinking or dining “service” or “place setting” in the modern vernacular is rarely definable in most archaeological contexts.⁶⁶ Even in the Anglo-American setting, the “English tea set” is only a subset in a larger cultural assemblage of ceramic and porcelain vessels (including chamber pots), indicating a general shift from corporate to individualizing commensality in mid 18th-century North America.⁶⁷ Day and Wilson have made similar arguments for changes between EM I and EM IIA in which the pottery assemblages indicate a shift from sets appropriate to communal occasions to those suggesting individual “dinner services”—groups of small flat-bottomed vessels that could effectively be used at a

table.⁶⁸ While reasonably compelling “customary sets” have been identified by Wright for the later Middle Bronze Age mainland mortuary contexts, and by Rutter for LM IB Kommos,⁶⁹ the definition of functionally specific sets may require unusual systemic contexts such as the pantries at Pylos in LM IIIB.⁷⁰

The Lakkos, as a secondary deposit, unfortunately does not allow easy reconstruction of the details of the original use of the vessels. Drinking and dining sets are thus defined here simply as a range of forms consistently repeated across the various ware groups that were used for serving, drinking, and dining. It is acknowledged that the Lakkos sets include a very broad range of vessel forms, which on further stylistic or quantitative analysis of wares and fabrics (or a wider sample from the same deposit) may permit the definition of functional subsets, suggesting the existence of specific users or discrete ritualized activities. That said, at the analytical scale of the deposit (the assemblage taken as a whole), I do not rule out the possibility that the sets as defined here represent vessels used together by distinct groups in a public ceremony or ceremonies. While patterns of ceremonial consumption have been postulated for Knossos, Myrtos Pyrgos, and Quartier Mu at Malia,⁷¹ the full range of forms comprising whole sets has not been studied for any single site.⁷² The Petras Lakkos assemblage is perhaps unusual in its quantity of material from a closed deposit and the recurrence of forms represented across various ware groups, permitting at least a hypothetical definition of such groups. Drinking and pouring vessels and saucers cluster securely in five of the 12 groups: Polychrome, White-on-Dark, Spatter, Rough-Burnished, and Monochrome Wares (see table 3). Dark-on-Light Ware and Plain Ware were identified in the same series of vessels types, but each constitutes a tentative ware group that is inconsistent in surface treatment and poorly preserved in representative forms.

Even though assigning specific forms had its problems—it was sometimes difficult to piece together complete profiles—the cups, saucers, and jugs/bridge-spouted jars show the most regularity across the different wares. Sherds from conical cups were difficult

⁶⁶ Deetz 1996, 86–7. See Wright (2004b, 99–100) on the definition and social implications of “standard services” in Mycenaean contexts. The definition of a “serving” in conceptual terms of Anglo-American or European “table settings” or notional functional groups such as a jug, cup, and bowl (cf. Rutter 2004) is anachronistic and delimits the conceptual framework for discerning culturally significant material patterns.

⁶⁷ Deetz 1996, 86–7.

⁶⁸ Day and Wilson 2004, 55.

⁶⁹ Wright 2004a, esp. 138–40; cf. Graziadio 1991, 415–19.

While Rutter’s (2004, 77) definition of an LM IB “set” at Kommos is based on the correlation of exclusive forms (semi-globular cups, in-and-out bowls, collar-necked jugs) with a specific style (his own Floral Paneled Style), the set is loosely dependent on context.

⁷⁰ Dabney et al. 2004, 202; Stocker and Davis 2004, 191.

⁷¹ MacGillivray 1987; Day and Wilson 1998, 354–55; Knappe 2005, 150–51.

⁷² MacGillivray 1987; Momigliano 2000, 101; Borgna 2004, 258–59.

to distinguish consistently from one-handed cups, making the goblet and cup distinction impossible.⁷³ Furthermore, true straight-sided cups are rare in the assemblage, and many of the forms counted here could be one-handed cups with wide bases. True tumblers were most easily identifiable in base sherds, although some flaring rims were included in the count. Finally, the beveled cup, which is typically east Cretan, appears to be rare in Polychrome, Spatter, and Rough-Burnished Wares; it does not appear in Dark-on-Light Ware and Plain Ware and is most common in White-on-Dark Ware and Monochrome Ware.

These problems notwithstanding, the differences are meaningful. Polychrome Ware vessels exhibit anomalous departures from the core cluster of forms: straight-sided cups are absent, while special-function forms such as tripod vessels (see fig. 11i), elaborate torus-base fruitstands (see fig. 12b, c),⁷⁴ and the “barbotine” footed goblet (see fig. 11j) are present. Similarly, the White-on-Dark Ware group has tripod vessels and fruitstands, each with elaborate finger-impressed cupules on the interior of the bowls. Thus, special-function and formally more elaborate vessels with complex plastic and painted decoration seem to cluster in Polychrome Ware and White-on-Dark Ware assemblages, but the groups have few fruitstands. It is interesting that fruitstands are absent in Spatter Ware, which shows a disproportionate abundance of saucers (see fig. 15).

Thus, the core features of the drinking/dining set appear to be the cups (carinated, angular, S-profile [including round], conical and one-handed, and beveled), tumblers, saucers, jugs, and bridge-spouted jars (see table 3). Fruitstands are also found across the ware groups but seem to concentrate in Rough-Burnished Ware (see fig. 18h, i), Monochrome Ware (see fig. 19j, k), and especially Dark/Red Wash Ware (see figs. 22, 23). One wonders if these large serving/offering vessels were not meant for routine or communal consumption in contrast to the individualizing distinctions in the fine cups, jugs, and saucers that could comprise a regular subset of fine vessels in a standard drinking/dining kit. The fancier stands and tripod vessels in Polychrome Ware and White-on-Dark Ware represent the other extreme of exclusivity and perhaps special ritual consumption, with formal attributes emphasizing specific roles or functions within the feast.

The greatest diversity of forms is within Polychrome, White-on-Dark, Monochrome, and Dark-on-Light Wares. Extreme stylistic elaboration and differentiation characterize the first two groups, simplicity and uniformity the last two. Some of the Polychrome Ware and White-on-Dark Ware forms, such as the S-shaped cup and the angular/carinated cup, show considerable variation in profile, while the footed goblet, tripod vessels, and fruitstands are rare, in some cases unique, within the sample studied. Even the common east Cretan beveled cup, in its Polychrome Ware version, is distinguished by three feet (see fig. 11i).

Dark/Red Wash Ware and Dark-on-Light Ware seem to comprise the core utilitarian (storage and general serving) forms in the Lakkos assemblage, a functional distinction that perhaps sets them apart from the bulk of the painted wares (see table 3). Even if lekanes are occasionally found in Polychrome Ware, and oval-mouthed amphoras in White-on-Dark Ware and Monochrome Ware, there are clusters of large coarse vessels in Dark-on-Light Ware and Dark/Red Wash Ware, especially the latter (see table 3, outlined boxes); indeed, Dark/Red Wash Ware sherds comprise about half of the total assemblage in the Lakkos. The consistent presence of jugs, amphoras, pithoi, jars, spouted jars, fruitstands, large bowls, and lekanes in these two groups could allow us to reconstruct storage/serving sets. The functional as well as stylistic differences distinguishing the storage/serving sets from the standard drinking/dining sets could point to different modes or occasions of use, and if deployed along with the fine drinking wares, perhaps a different cultural meaning.

CHRONOLOGY

Problems in Dating and the Knossian Sequence

The pottery from the Lakkos seems to be formally consistent with an MM IB date in Knossian terms. Even tentatively stated, this is a bold assertion, given our recognition of ceramic regionalism in the Protopalatial period and a frequent assumption of an east Cretan cultural and chronological lag.⁷⁵ Dating the Lakkos is further complicated by the fact that contiguously stratified and closed assemblages of local MM IB and MM IIA phases have not yet been published from eastern Crete; such data will eventually provide a level of resolution to forge arguments for secure synchronisms

⁷³I have lumped them together, as they are similar in profile and forming technology, reserving the goblet designation for a single, unusual footed goblet in Polychrome Ware (see fig. 11j). See Andreou (1978) and Knappett (2005, 139) for the term “conical goblet.”

⁷⁴Poursat and Knappett 2005, 84, pl. 53[1153].

⁷⁵Betancourt 1977, 351; 1985, 71, 90; cf. MacGillivray 1990. The notional palace-province paradigm assumes a concentric pattern of emulation in which forms and styles sometimes required generations to “catch up” to what was going on at the Knossos center.

within eastern Crete and with Knossos.⁷⁶ Even at Knossos, the outlines of MM IB and IIA need more work (and consensus), although new stratigraphic excavation and reevaluation of old deposits are rapidly changing the picture.⁷⁷ Given the inherently mixed character of habitation deposits—for example, MM IIA occupation levels conceivably contain much material that is MM IB in date—the definition of chronologically exclusive features, type fossils, or even developmental trends has proven difficult but by no means impossible.⁷⁸ In eastern Crete, the same problems exist, as well as the same probability and potential for eventual chronological and stratigraphic clarity.

Even so, the tendency has been to avoid the chronological (and historical) gaps by shaping the broad outlines of ceramic phases into clusters, or “groups.” Lacking closed deposits or stratigraphically clear and contiguous deposits, we tend to collapse phases into broad periods in Prepalatial and Protopalatial (Final Neolithic to EM I, EM III–MM IA, and MM IB–II).⁷⁹ While this time-honored tradition has perhaps as much to do with the state of the archaeological record as the condition of publication, it is sustained by two ideas: one is the east Cretan “other,” the “wild country east of Dikte” whose ceramic tradition should be different morphologically from material at Knossos; the second is our assumption of the idiosyncratic character of provincial styles, implying independent cultural production. The problem of regionalism needs to be resituated by recognizing not only the reality of production zones, such as that provided by recent petrographic work, but also associations between stratigraphically and culturally similar contexts. By focusing on connections (and differences) between ostensibly contiguous or related groups—such as Mesara, Knossos, Galatas, and Archanes;⁸⁰ Malia, Pyrgos, Mochlos, and Gournia;⁸¹ or between Petras and Palaikastro⁸²—we may come closer to understanding the formal links that tie these groups together and suggest patterns of interregional influence and inter-

action. Of course, east Cretan assemblages look very different from contemporary central Cretan versions. Implicit in the notion of regionalism is cultural unity on a microregional scale—encouraging the splitting of ceramic phases into formally unique sets and subsets that can be tied to specific groups of sites—as well as the concept of cultural isolation. The latter is embedded in ideas of palace and province and center and periphery. Day and Wilson’s empirically based argument separating ceramic production from patterns of distribution and consumption,⁸³ combined with ideas of intraregional and interregional cultural processes,⁸⁴ may allow us to see ceramic regionalism as a measurement of the intensity of interaction—or what I call elsewhere, “high integration.”⁸⁵ Rather than political, social, or geographic separation or isolation, regional stylistic variability could well suggest the opposite: a dynamic cultural process of social interaction that has identifiable material correlates.

The Lakkos context suggests a chronologically unified assemblage that was created in MM IB and closed at the very end of the period, perhaps in the transition from MM IB to MM IIA. On the whole, the Polychrome Ware and White-on-Dark Ware styles fit into the “early Kamares” repertoire and the phase 2 morphology established in Walberg’s analysis of provincial styles.⁸⁶ The forms across the ware groups tend toward MacGillivray’s Group A deposits at Knossos⁸⁷ and Andreou’s Malia South Houses and the Mochlos, House D–Vasiliki, House B Groups in eastern Crete.⁸⁸

The Lakkos forms are consistent with MacGillivray’s outline of MM IB forms at Knossos.⁸⁹ The wide-splaying shallow bowl (saucer) (see fig. 15); type 1 and 2 tumblers (see fig. 11a–h); type 1 short-rimmed carinated cups (see fig. 17a, b); squat round cups (see figs. 6f, 19d); type 1 and 2 round cups (see figs. 6g, 10c–f); and type 2 bridge-spouted jars (see fig. 9b–d) are consistent features in the Lakkos. True straight-sided cups are rare (see figs. 8b, 13c, 19g). While they do exist—including forms approximating MacGillivray’s “proto-

⁷⁶The clear definition of an MM IIA phase is of critical importance; analysis of the post-Lakkos sector III deposits and the results of recent work at the site should clarify the picture of the MM IB–IIA transition, as will publication of sequences from Malia, Palaikastro, Mochlos, and Myrtos Pyrgos (see MacGillivray et al. 1992; Soles and Davaras 1996, 180–84; Knappett 1997, 1999a, 2006; Poursat and Knappett 2005).

⁷⁷See Knappett (2005, 147–48) for the MM IB deposit in the west wing; Momigliano and Wilson (1996, 13–26) on the excavations on the south front of the palace; in general, Knappett (1999b, 111–13), esp. discussion of MacGillivray’s (1998) sequencing within the palace; cf. Cadogan 1994, 64–5.

⁷⁸Knappett 1999b, 111.

⁷⁹E.g., Betancourt 1977, 351; Andreou 1978, 172. Cf. Cado-

gan (1986) and Watrous (2001) for indications of adherence to the Evans chronology, but in the latter, the persistent adherence to “MM IB–II” as a cultural phase.

⁸⁰MacGillivray 1987, 1990, 1994, 1998; Day and Wilson 1998; Rethemiotakis and Christakis 2004.

⁸¹Knappett 1999a.

⁸²Knappett 2006.

⁸³MacGillivray 1987; Day and Wilson 1998.

⁸⁴Cherry 1986; MacGillivray 1987; Knappett 1999a.

⁸⁵Haggis 2002, 123.

⁸⁶Walberg 1983; 1987a, 12.

⁸⁷MacGillivray 1998.

⁸⁸Andreou 1978.

⁸⁹MacGillivray 1998, 65–80.

wheelmade” types 1 and 2, with conical profiles and shaved and scraped walls and pared bases (fig. 24c, d)⁹⁰—the Lakkos examples look more like larger versions of one-handled conical cups.⁹¹ The true straight-sided (Vapheio) cup may be a characteristically central Cretan feature that does not catch on in the far east of the island until MM IIA,⁹² though early cylindrical varieties are common enough at Myrtos in Pyrgos II deposits (see fig. 8b).⁹³ Like the standard Knossian footed goblet, a form absent in the Lakkos, there is also a range of carinated and angular cups that find few solid links to Knossian MM IB examples.⁹⁴ MacGillivray’s MM IB short-rimmed type 1 and tall-rimmed angular types 1 and 2 are present in the Lakkos (see fig. 6a, b), but there are also examples tending toward his types 3 and 4, which are generally assigned to MM IIA (see fig. 10a).⁹⁵ Given the state of the published evidence, I am reluctant to down-date these unequivocally (or posit an east Cretan MM IB/Knossian MM IIA synchronism). Closer to the Lakkos angular cups are the MM IB fine, black-slipped varieties from the recent reexamination of material from the South House and excavations on the south front of the palace. These are not as sharply carinated and concave as MacGillivray’s samples, and sport fairly tall, straight rims (often equal to the height of the lower body) and offset bases, characteristics shared by the bulk of the Lakkos carinated and angular cups (see figs. 6d, 13a, b, 17a, b, 19a, b).⁹⁶

Decorative features in Polychrome Ware and White-on-Dark Ware also show close parallels to published examples from Knossos. Simple alternating horizontal and diagonal red and white stripes; white diagonals, bands, festoons, and pendant arcs on the rim; dotted bands; the framing of decorative elements (e.g., crosses, dots, zigzags, lines, and foliate bands) by vertical, horizontal, and diagonal banding and arcs; and the Alternating Floral Style are all Lakkos features that, if not common in MM IB Knossos, are at least represented.⁹⁷ Given the published samples of forms across

the assemblages as well as the decorative features of the Polychrome Ware groups—especially in MacGillivray’s Woven Style⁹⁸—there is an arguably close connection between Knossos and Petras assemblages. Indeed, certain stylistic elements within the Woven Style group such as the Alternating Floral Style are likely to be MM IB east Cretan in origin and inspiration.⁹⁹

Andreou’s Chronology

Andreou provides a comprehensive synopsis of forms and wares in east Cretan assemblages, though his work predates recent stratigraphic studies at Knossos.¹⁰⁰ His intention was to link stratigraphic deposits in central Crete¹⁰¹ with regional groups and local typologies based on material from Mochlos, Pseira, Vasiliki, Gournia, Zakros, Palaikastro, Myrtos Pyrgos, and Malia.¹⁰² While he faced difficulties in applying the Evans chronology,¹⁰³ his groups (Mochlos, House D–Vasiliki, House B; Malia South Houses; and Pyrgos II) have features that are clearly on the early side of the Protopalatial sequence; they are probably contemporary and contain material as early as MM IA and as late as MM IB. Pyrgos III and the Malia Town Groups represent solidly MM IIB (with possibly some MM IIA) material—the other end of the Protopalatial sequence. More problematic from the standpoint of the Lakkos assemblage is the position and composition of Andreou’s Vasiliki House A–Zakros Group, which he associates partly with Pyrgos III and Malia Quartier Mu.¹⁰⁴ Although he admits the carryover of older features (an overlap with the MM IB–IIA chronological phase),¹⁰⁵ there are forms and styles in the group that are new:¹⁰⁶ the predominant use of the fast wheel; carinated cups with regular horizontal ribbing above a pronounced carination; hemispherical cups; tall S-profile goblets, which seem to have much in common with MacGillivray’s type 3 short-rimmed angular cup;¹⁰⁷ concave Vapheio cups; and tall conical goblets with pronounced feet.¹⁰⁸ These new forms are foreign to the Lakkos, and I suspect they should be

⁹⁰ MacGillivray 1998, 68–70.

⁹¹ Andreou 1978, fig. 11[15–20].

⁹² See Momigliano and Wilson 1996, 14–15; Knappett 2003, 42–3.

⁹³ Andreou 1978, 83–5.

⁹⁴ MacGillivray 1998, 73–4.

⁹⁵ MacGillivray 1998, 94.

⁹⁶ Momigliano and Wilson 1996, 15–17, fig. 9[19–22]; see also Knappett 1999b, 112; 2003, 43–44, figs. 3.1[11], 3.2[33]. See Andreou (1978, 86) for the shape and reference to MM IB at Knossos.

⁹⁷ Momigliano and Wilson 1996, fig. 8; MacGillivray 1998, 94, pls. 1, 2; Knappett 2003, fig. 3.1.

⁹⁸ MacGillivray’s (1998, 59) comment on the rarity of the

style in eastern Crete should perhaps be revised.

⁹⁹ Walberg 1983, 207; MacGillivray 1990, 433; Momigliano and Wilson 1996, 15; Floyd 1997.

¹⁰⁰ Andreou 1978.

¹⁰¹ E.g., the definition of MM IB and IIA phases and the precise position of Levi’s phase Ia; (see MacGillivray 1990, 431; 1998, 99–101; Knappett 1999b, 107–10).

¹⁰² Andreou 1978, 1–11.

¹⁰³ Andreou 1978, 164–72.

¹⁰⁴ Andreou 1978, 93.

¹⁰⁵ Andreou 1978, 95.

¹⁰⁶ Andreou 1978, 106–19.

¹⁰⁷ MacGillivray 1998, 74.

¹⁰⁸ Cf. MacGillivray 1998, 67.

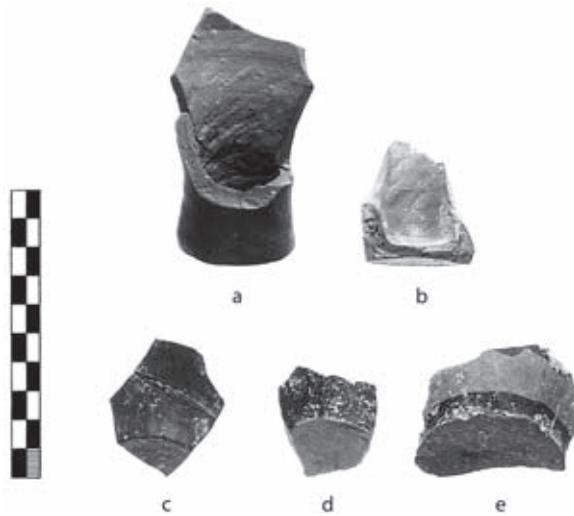


Fig. 24. Forming technology: *a*, coil-built and wheel-shaped (L615); *b*, coil-built and wheel-shaped (L616); *c*, coil-built with pared base; *d*, coil-built with pared base (L476); *e*, coil-built with pared base (L67). Coil-built and wheel-shaped examples show diagonal rib marks on their interiors (K.E. May).

distinctly MM IIA innovations that continue into MM IIB contexts such as Pyrgos III and Quartier Mu (and Andreou's Malia Town Group). The carryovers—especially tumblers, conical cups, conical goblets, and beveled, angular, and S-profile cups—are of course at home in MM IB, as are the original designs and compositions of Polychrome Ware and White-on-Dark Ware.¹⁰⁹ It is safe to say that Andreou's Vasiliki House A–Zakros Group contains not only formal and stylistic links with earlier deposits but also actual pots from two different chronological and stratigraphic phases: MM IB and MM IIA.

In the Lakkos, the conical cup (Andreou's conical goblet), one-handed cup (Andreou's conical cup), S-profile cup (MacGillivray's squat round cup), beveled cup, round cup, angular cup, tumbler, flaring bowl (saucer), and spouted and bridge-spouted jars fit neatly into Andreou's Mochlos, House D–Vasiliki, House B Group. The angular cups in the group (see figs. 10b, 13a, b) have the distinctive solid foot or offset base and straight or slightly inturning rim; this is

an early form that seems to last into his later Vasiliki House A–Zakros Group but has firm links in MM IB at Knossos. It is interesting that Andreou takes the typical east Cretan baggy bridge-spouted jar (see figs. 9a, 11m) as a later development, placing it in the Vasiliki House A–Zakros Group (MM IB–IIA). This is, however, a traditional east Cretan form that is likely to have had a long life, beginning in MM IB or earlier.¹¹⁰ Beveled cups (see fig. 8c–g) and S-profile cups (see figs. 6f, 10c–f) also continue into Andreou's later group, and the range of decorative features, especially White-on-Dark Ware pendant arcs that frame spirals and foliate sprays, and Polychrome Ware examples with alternating red and white bands and floral motifs (including Alternating Floral Style) show strong parallels with Lakkos examples. One-handed cups (conical cups) with overlapping (crossing) pendant arcs on the interior (see fig. 7e) are also present in Lakkos and Vasiliki House A–Zakros wares. While Andreou implies a chronological overlap between his two groups, on the evidence from the Lakkos, it is likely that these forms (baggy jug, beveled cup, and angular cup) and decorative schemes originated in MM IB but persisted into MM IIA.

There are also strong links between the Lakkos and Andreou's Malia South Houses Group,¹¹¹ especially in the forms of saucers, conical cups, one-handed cups, tumblers, round cups, and bridge-spouted jars. Conical cups with offset bases, internal rim bands, and external pendant arcs, and tumblers with slightly concave profiles and inturning rims decorated with internal and external rim bands correspond to Lakkos forms. The presence of Spatter Ware in the group may be another potentially important connection.¹¹²

As the foregoing discussion should indicate, if we look exclusively at the range of published material, forging a synchronism with Knossos may turn out to be easier than establishing decisive links with Palaikastro, Zakros, Gournia, or Malia. The root of the problem is twofold: first, a good picture of comparable stratified deposits is absent in east Crete; and second, we need to disentangle MM IB from IIA stratigraphically in this area of the island while letting go of the implicit assumption of a single, undifferentiated MM IB–II phase—or worse, uncritically down-dating deposits to MM IIA based on assumptions about the proficiency

¹⁰⁹ Andreou (1978, 115–17) argues that complex and naturalistic patterns, esp. the linear framing of repeated geometric and floral motifs, belong in the later Vasiliki House A–Zakros Group, drawing comparisons with Classical Kamares and Phaistos phase Ib.

¹¹⁰ Examples from Mochlos are even decorated in Cream-on-Dark Ware, which has solid links to MM IA at Gournia

and early Pyrgos II (Cadogan 1986, 160). See Bosanquet and Dawkins' (1923, 11, fig. 7, pl. 9) "hole-mouth jugs," dated erroneously to MM IA.

¹¹¹ Betancourt (1984, 18–19) has placed the Malia Town Group firmly in MM IB; see also Chapouthier et al. 1962, 43–50.

¹¹² Detournay 1975, 74, pl. 26; Andreou 1978, fig. 18[2].

in the use of the wheel or the level of complexity of design principles in White-on-Dark Ware and Polychrome Ware. In any case, it is important to note that Andreou's groups are analytical and interpretive; they do not represent culturally equivalent deposits.

What is interesting about Andreou's organization of the east Cretan data is that his early synchronous groups (Mochlos, House D–Vasiliki, House B; Pyrgos II; and Malia South Houses) have distinctly late Prepalatial features or carryovers. They may include some MM IA pots, but the developmental trend is clear: the forms and decorative styles seem to grow out of and reflect back on the late Prepalatial tradition. The contrast between the early groups and the later Pyrgos III and Malia Town Groups is striking; the former may represent distinctly MM I ideas about pottery, while the latter are quintessentially MM II. Embedded in Andreou's seriation could be something more than merely regional stylistic trends and continuous chronological developments: the early groups tend to look backward in time, the changes seem to be visual or symbolic comments or elaborations on preexisting traditions. In contrast, the later groups tend to break with tradition, looking ahead to the standardized forms and stylistic rules and principles of the Classical Kamares tradition, and in the east, the Quartier Mu and Pyrgos III assemblages, which have instigated the characterization of the MM II "Lasithi" or "Malia" state. As I have argued above, Andreou's Vasiliki House A–Zakros Group sits somewhere in between.

Palaikastro: The East Facade of Building 7

To use an example from a recent excavation, the contrast between MM I and MM II may be apparent at Palaikastro. The sequence derived from a sounding on the east facade of Building 7 in trench EU 89 produced four Protopalatial levels dated by MacGillivray to MM IIA–MM IIIA.¹¹³ The earliest two levels (surfaces VII and VI), containing material identical to that of the Lakkos, are dated to MM IIA: Polychrome Ware and White-on-Dark Ware tumblers; White-on-Dark Ware carinated, round, and beveled cups; a Polychrome Ware round cup; and a White-on-Dark Ware bridge-spouted jar. Included on the earliest surface were a White-on-Dark Spatter Ware juglet, stands, and tripod "offering tables," notable features that are also common in the Lakkos. The subsequent transitional level

(material recovered from above surface VI and below surface V) appeared radically different. Dated to MM IIA–B by the excavator, it included clearly wheel-thrown forms: straight-sided cups, hemispherical cups, and deep round cups with outturned rims. The orange and white stripes are entirely new features.¹¹⁴ Finally, a solid MM IIB date for the material above surface V was indicated by a straight-sided cup with a beveled base. While whole assemblages are not presented in the preliminary report, a comparison between the published pots and the Lakkos material points to an MM IB date for the earliest two levels, suggesting that the material between surfaces VI and V could be MM IIA, perhaps mixed with material deposited during the creation of surface V. So even though the date of the transitional level between surfaces VI and V is arguably MM IIA–B, as the excavator believes, the only tangible links to the earlier level VI are the White-on-Dark Ware carinated cups.¹¹⁵

What is interesting about the published pictures of the Palaikastro assemblages in levels VII and VI is how different they look from those in the subsequent deposits. The early levels contained many of the features of an MM IB drinking set: a Polychrome Ware tumbler and round cup; White-on-Dark Ware carinated, beveled, and S-shaped cups; and a bridge-spouted jar. Furthermore, what was absent in level VI, at least among the published forms, were the telltale signs of MM IIA, indications that do not actually appear until MacGillivray's next level, between VI and V: the true hemispherical (semiglobular) and straight-sided cups that are hallmarks of MM II at Malia (Andreou's Malia Town Group), Myrtos Pyrgos (IIId–IIII), Kommos, Knossos, and perhaps Levi's phase Ib.¹¹⁶ Rather than a smooth transition or gradual development, a radical change had occurred in patterns of ceramic production and consumption at Palaikastro between surfaces VI and V on the east facade of Building 7: we might think of the former as essentially or conceptually MM I and the latter MM II. If this argument seems like a throwback to the first attempts at Palaikastro to sort out the earliest Protopalatial stratigraphy in eastern Crete, in many ways it is. Dawkins argued that deposit G3 at Palaikastro represented not only the earliest deposit in the town and the only regular undisturbed stratum containing the earliest Kamares Ware but also the basic forms that characterize Andreou's Mochlos, House

¹¹³MacGillivray et al. 1992, 132–37.

¹¹⁴MacGillivray et al. (1992, 133) date the level on the basis of a large pedestaled (lamp?) stand.

¹¹⁵Carinated cups may not be the best indicators of date in the MM I–II sequence. Perhaps in an effort to create metallic skeuomorphs, they are among the first forms demonstrating

a precocious if not accomplished use of the wheel (see, e.g., Knappett 1999b, 121).

¹¹⁶Andreou 1978, 112; Levi and Carinci 1988, 189–95; Betancourt 1990, 24; MacGillivray 1998, 75–7 (rounded cup, types 2–7).

D-Vasiliki, House B Group: the tumbler, the beveled cup, and the angular cup with the offset base. Dawkins notes that lacking in the deposit were his later “second class” cups: the hemispherical, large carinated, and straight-sided cups.¹¹⁷ Another correlate between the Lakkos and this Palaikastro G3 deposit is the presence of Thick Polished Brown Ware, which I suggest may be equivalent to Rough-Burnished Ware.¹¹⁸

Manufacturing Technology

My persistence in assigning an MM IB date for the Lakkos is further encouraged by the evidence of pottery technology.¹¹⁹ Medium- to large-sized coarse vessels (jars, jugs, pithoi, stands, large bowls, and lekanes) are all coil-built (handmade). Among the smaller medium-coarse and fine ware sherds, distinguishing between coil-built and wheel-thrown is extremely difficult, especially in finely finished Polychrome Ware and White-on-Dark Ware, where a thick surface slip (smoothed, evenly applied, or burnished) has concealed telltale patterns of manufacturing.¹²⁰ Furthermore, many fragmentary body and rim fragments were simply too small to identify forming indicators. That said, randomly sampled counts were kept in broad categories of “wheel-thrown” and “coil-built.” The wheel-thrown group is rather uncritically defined and could include a number of coil-built or transitional (Knappett’s “intermediate”) forms; it was identified in sherds with thin walls, crisp angles, symmetrical profiles, and some evidence of rilling on the walls. Obvious signs such as deep rilling and concentric or string-cut spiral patterns on bases were rare and in some cases clear MM IIA intrusions.¹²¹ Vessels in the wheel-thrown group generally show parallel striations on the base, and among the Monochrome, White-on-Dark, and Dark-on-Light Ware cups, the slip often extends just over the edge of the base, forming a ring and reserved disc on the bottom, a common element in the Pyrgos II phase.¹²² This reserved disc is, however, also found on coil-built forms.

Included in the wheel-thrown group are vessels indicating sure signs of intermediate or transitional techniques. The most obvious and common is the “semi-thrown” form (coil-built and wheel-shaped), which shows continuing dependence on a shaping

tool, or “rib.” Such vessels have distinctive diagonal, curving rib marks on the lower body of the interior that extend from the base (see fig. 24a, b).¹²³ Coil-built forms are generally but not uniformly thick-walled, rather uneven and asymmetrical in profile, and sometimes show signs of scraping and vertical shaving or paring of the wall (see fig. 24c–e). Pared bases are common, although Knappett points out that this might be associated with a tentative use of the wheel (MacGillivray’s “proto-wheelmade” forms).¹²⁴ The unskilled potter compensated for difficulties in pulling up the walls of the vessel on the wheel by pushing downward on the base, leaving a thick and irregular clumping of clay at the bottom that was then pared or cut away after throwing (see figs. 18c, 24e).¹²⁵ The most easily definable finishing detail is what Knappett describes as “coil-built and rotation-finished.”¹²⁶ The indicators are discontinuous and irregular striations or cloth-smoothing marks on the upper body and rim as the potter turns the coil-built form to smooth the surface and regularize the uneven thickness of the vessel (see figs. 14e, 18b, 25). In some examples from the Lakkos, it appears as if the potter may also be attempting to smooth over light paring or vertical striations on the lower body (see fig. 25).

More than 90% of the Lakkos pottery, including the various large coarse ware vessels, shows certain signs of coil-building. While details of forming technology could not be recorded systematically across the lots, a sample of 427 fine wares from 12 randomly selected lots, excluding nondiagnostic jug and jar rims and pot handles, demonstrate that about 43% show certain coil-building features (including rotation-finishing), and 57% are possibly wheel-thrown (including wheel-finished forms and thin-walled vessels with no distinctive forming indicators). If measured in terms of total weights in each category (3.7 kg total sample), the distribution is exactly even. This rough 50:50 ratio, however, differs from Betancourt’s results at Kommos,¹²⁷ which show an extreme contrast between MM IB and IIA. He states that more than 90% of the fine wares in the former period are handmade, and in MM IIA, more than 90% are wheelmade. The indicators seem to have been easily discernable if not self-evident: thin walls and horizontal finger marks

¹¹⁷ Bosanquet et al. 1902–1903, 304–5.

¹¹⁸ Bosanquet et al. 1902–1903, 298, 300.

¹¹⁹ Knappett 1999b.

¹²⁰ Knappett 1999b, 115.

¹²¹ Knappett 1999b, 117. Some examples in the Lakkos are taken to be MM IIA elements or intrusions.

¹²² G. Cadogan, pers. comm. 1991.

¹²³ Knappett 1999b, 118.

¹²⁴ E.g., MacGillivray 1998, 68.

¹²⁵ Knappett 1999b, 121.

¹²⁶ Knappett 1999b, 116. Rutter and Van de Moortel (2006, 328) observe similar trends at Kommos in MM IB.

¹²⁷ Van de Moortel’s (Rutter and Van de Moortel 2006, 328) reevaluation of manufacturing technology at the site echoes Betancourt’s (1985, 77–8; 1990, 30) results.

(rilling), and a qualitative impression of symmetry, balance, and thickness and regularity of vessel walls.¹²⁸ However, the contexts at Kommos and Petras are not equivalent: Betancourt's sample of 820 sherds consisted of only cup fragments across eight different contexts (occupation deposits from the town), four dated to MM IB and four to MM IIA.¹²⁹ The Lakkos, however, is a secondary deposit, not necessarily associated with routines of regular habitation activity. In the Lakkos, obvious rilling is an identifiable feature, as are string-cut bases, but these indicators are rarely evident on well-finished vessels, especially sherds of the finer Polychrome Ware and White-on-Dark Ware. For the bulk of the wheel-thrown material in the Lakkos (about half the fine ware assemblage), the designation is derived from an impression of the quality of individual sherds, some too fragmentary to get a sense of all parts of the pot from base to rim. Knappett's discussion of forming technology thus introduces obvious problems.¹³⁰ A neat breakdown of handmade and wheelmade forms might ultimately prove to be empirically difficult (if not impossible),¹³¹ suggesting an inaccurate or statistically meretricious clarity that is clouding the real complexity of ceramic production in MM IB.

What is clear, however, is that taken as a whole, the deposit looks like a transitional stage; it shows signs of the introduction and tentative use of the wheel along with coil-built forms; both experimental wheel-shaping and simple rotation were used for finishing coil-built vessels. Similar to Knappett's characterization of MM IB Knossos and Rethemiotakis and Christakis' description of MM IB deposits at Galatas,¹³² the Lakkos coil-built and intermediate forms are found alongside accomplished thin-walled vessels, especially certain classes such as carinated, S-profile, and beveled cups in Polychrome Ware and White-on-Dark Ware. While Knappett points out that the coil-built vessels may significantly outnumber wheel-thrown varieties in MM IB, by MM IIA "nearly all small vessels are wheel-thrown."¹³³

Establishing an absolute chronology (the duration and end point) for MM IB remains problematic. The division between MM IB and IIA, presumably in the 19th century, needs to be refined¹³⁴ by reevaluating

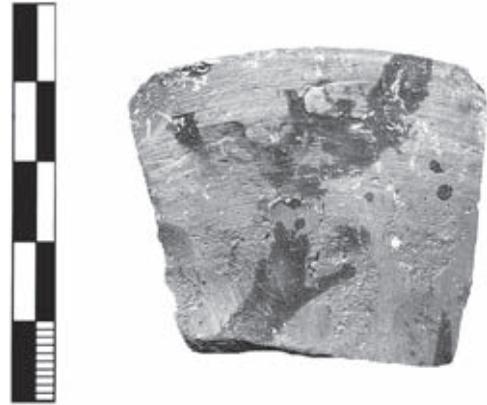


Fig. 25. Sherd showing forming technology: coil-built and rotation-finished (L183) (K.E. May).

the evidence for events marking the construction of a new palace at Petras and archaeological events at Knossos at the end of the MM IB ceramic phase there.¹³⁵ Whatever we say about the Lakkos assemblage as a whole, its date should include material as early as the South Houses at Malia in MM I but well before the developed MM IIA tradition in Knossian or south-central Cretan terms.

THE MEANING OF STYLISTIC DIVERSITY

Stylistic Variation and the Diacritical Feast

The Petras Lakkos pottery is stylistically diverse, functionally consistent with feasting and ritual activities, and chronologically early in the Protopalatial sequence. Day and Wilson have made a strong case that Knossos was an importer of Kamares Ware vessels manufactured in the Mesara; the pots were considered prestige goods that were either brought by elites or used for elite consumption in the palace.¹³⁶ This spotlights three important aspects of Middle Minoan palatial organization as related to ceramics: first, pottery could have been produced and distributed outside direct palatial control; second, commensality within the palatial sphere may be tied to the ritualized consumption of pottery whose form had meanings related to the place of manufacture and its users; and

¹²⁸ Betancourt 1985, 77–8; 1990, 30.

¹²⁹ Betancourt 1990, 22–4.

¹³⁰ E.g., distinguishing between wheel-thrown forms and those that were wheel-shaped, rotation-finished, or coil-built and then thrown.

¹³¹ See recent discussion in Knappett 2004, esp. 259–60.

¹³² Rethemiotakis and Christakis 2004, 170; see also Knappett 1999b, 124; 2004.

¹³³ Knappett 1999b, 124.

¹³⁴ Cf. MacGillivray (1998, 107), who argues that MM IIA

should have begun by the end of the reign of Amenemhat II (1876 B.C.E.), with Warren and Hankey (1989), who are somewhat more reticent. Both see MM IB as a relatively short phase, lasting less than 50 years. Cf. MacGillivray's (1998, 106–7) high date for the start of MM IB. This tendency to compress MM IB (by attracting forms and deposits into MM IIA) was taken to extremes in MacGillivray 1990, 431.

¹³⁵ MacGillivray 1994, 46–8; 1998, 97, 107.

¹³⁶ Day and Wilson 1998.

third, the pots themselves—the style of decoration and form—are potentially symbols of status and emblems of the specific roles of their users/consumers.

In the Lakkos, the stylistic variations fall into two categories reflecting different scales of analysis. First, definable ware groups display very different surface treatments and design elements, suggesting an extreme of what Pollock has called “horizontal variation,” a term that emphasizes distinctions between attributes and their combination and frequency. Second, variations within each of the ware groups tend toward Pollock’s “vertical variation,” which stresses the abundance and redundancy of decorative and design elements as well as the differential energy and labor expended in production.¹³⁷ Given the stylistic complexity of the assemblage, two questions present themselves: what is the meaning of the different styles and stylistic interaction—the juxtaposition and apposition of different wares in identical forms—and what was the possible social process and cultural context of consumption and deposition?

At first glance, the quantity and formal consistency of fine tablewares and special-function vessels should allow us to postulate use contexts of drinking and dining. The most commonly repeated fine ware forms across the ware groups are carinated cups, conical cups, round and S-profile cups, jugs and bridge-spouted jars, and saucers. Fruitstands are found in Polychrome, Rough-Burnished, Dark/Red Wash, Dark-on-Light, Plain, and White-on-Dark Wares. Even though food preparation and storage vessels (cooking pots, amphoras, pithoi) are found, they comprise a relative minority of the forms represented in the assemblage (figs. 26, 27).¹³⁸ What is interesting about the assemblage of drinking vessels (cups), pouring vessels (jugs, spouted jars), and dining vessels (fruitstands, saucers) is the appearance of exactly the same forms across the various ware groups (see table 3). This formal redundancy suggests the existence of parallel groups, what I call “sets,” differentiated on the basis of ware (surface treatment and decoration). If we hypothesize that the groups represent similar contexts of production, distribution, and consumption,¹³⁹ it follows that the activities were also meant to display or

emphasize the functional and formal similarities as well as the stylistic differences. Even if it is problematic, if not impossible, to reconstruct the specific contexts of primary use from evidence of secondary discard, the individual components of the Lakkos may represent relational traces of past activities; occurring together in the same place at the same time, they become, in essence, reflections of their past use lives. Their physical and visual associative relationship, even within a secondary deposit, might contain traces of their past history and remnants of specific kinds of activities, in this case, associated with drinking and dining ceremonies.¹⁴⁰

There are grounds for making the claim that the Petras Lakkos deposit could represent the remains of such activities. While the quantification of the various ware groups is ongoing, analysis of 16,667 fragments demonstrates that 75% of the pottery of identifiable forms is composed of drinking, dining, and serving vessels, while 25% can be qualified as utilitarian (see fig. 26). Even considering the bias of the size-effect hypothesis—small, delicate fine wares should produce more diagnostic sherd fragments than would big coarse vessels¹⁴¹—pithoi and cooking vessels, perhaps the most common pots in typical domestic assemblages, make up only 4% of the total diagnostic sherds represented.¹⁴² Comparison with a roughly contemporary context at Kommos, the recently published Group Ja, helps to characterize the Lakkos assemblage. Even if Group Ja consists of a mixed deposit (spanning MM IB to early MM IIB), both the Group Ja and Lakkos assemblages are derived from Protopalatial fill deposits that can be associated with public or official buildings or activities: in the Kommos case, the predecessor of Building AA; in the Lakkos, the predecessor of the palace itself. While the range of drinking and serving forms in the Lakkos is much wider and more varied stylistically than that of Group Ja, the proportion of drinking to pouring vessels in the Lakkos is nearly double (9:1) that of the Kommos deposit (5:1) and normal domestic contexts.¹⁴³ Furthermore, the large, pedestaled serving vessels, or fruitstands, are significantly rare in the Kommos Ja deposit, while in the Lakkos, the sherds comprise a minimum of 4% of the total diagnostic drinking, dining, and serving assemblage.¹⁴⁴ Points of

¹³⁷ Pollock 1983, 362–63.

¹³⁸ The majority of identifiable forms in the assemblage, however, are small storage vessels and large serving utensils: jars, spouted jars, jugs, lekanes, saucers, and fruitstands in Dark/Red Wash Ware.

¹³⁹ See Knappett (1999a, 629) for a discussion of administered modes of ceramic production in the Protopalatial period, drawing esp. on the work of Sinopoli 1988.

¹⁴⁰ Schiffer 1999, 20–9.

¹⁴¹ Assessment of minimum number of vessels has not been

conducted for the Lakkos. For the “size-effect” hypothesis, see Baker 1978; Schiffer 1987. See Rutter and Van de Moortel (2006, 326) for discussion of quantification of coarse and fine ware samples.

¹⁴² Against this view, see Rutter and Van de Moortel 2006, 323.

¹⁴³ For domestic contexts at Knossos in MM IIB and Kommos in MM III, see Rutter and Van de Moortel 2006, 322–27.

¹⁴⁴ Rutter and Van de Moortel 2006, 322.

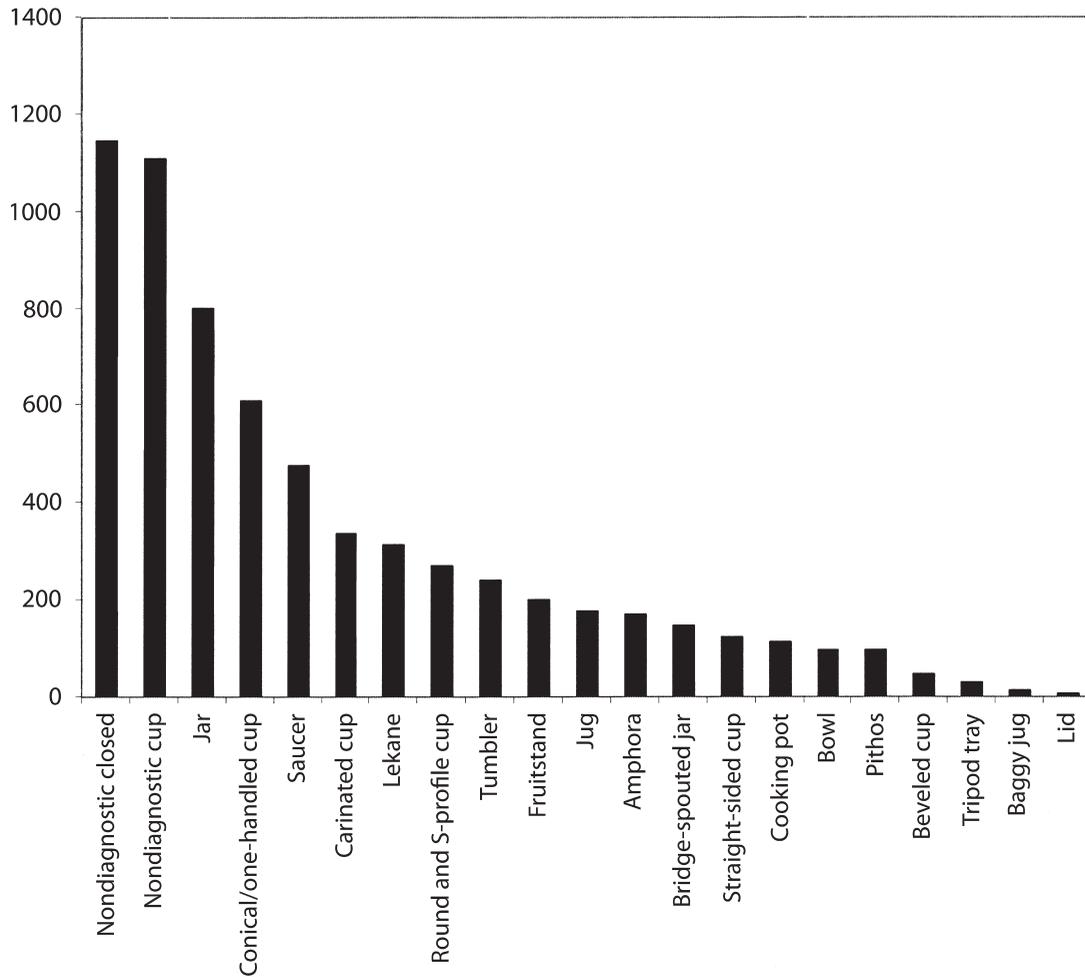


Fig. 26. Relative quantities of diagnostic sherds (n=4,283) and nondiagnostic sherds from the Lakkos deposit, by vessel form ("nondiagnostic closed" = jugs and jars).

comparison are in the identical relative quantities of saucers (wide, flaring bowls), as well as the percentage of coarse utilitarian vessels in Group Ja (27%), which Van de Moortel correlates with nondomestic and typically palatial contexts at Phaistos.¹⁴⁵

The striking characteristic of the Lakkos assemblage is, however, not only the quantity but also the variety of drinking and dining vessels. One approach to the problem of diversity is through the context of consumption: the banquet itself. In prehistoric societies, the celebration of feasts frequently incorporated ritual or ritualized acts that created, restructured, or reinforced social relationships between or within groups

of equal rank, such as corporate or lineage groups, or between groups of unequal rank, differentiating feast participants, organizers, and other hierarchical social configurations. As defined by Hayden and Dietler, economic (entrepreneurial) and redistributive feasts seek to integrate segments of the population into a collective or cooperative group, such as a labor pool, forging or reinforcing bonds between corporate groups and feast organizers, usually to the economic or political benefit of the dominant party throwing the feast.¹⁴⁶ Another form of communal dining, known as diacritical feasting, is purposely exclusive or exclusionary.¹⁴⁷ The ritual action displays differential status and elite

¹⁴⁵While the range of coarse utilitarian vessels in the Kommos Ja Group is much more varied than that of the Lakkos, which contains primarily very large lekane, tripod trays, and

spouted jars, the overall relative quantity is similar.

¹⁴⁶Dietler 1996, 92–7; Hayden 1996, 128–29.

¹⁴⁷Hayden 1996, 129.

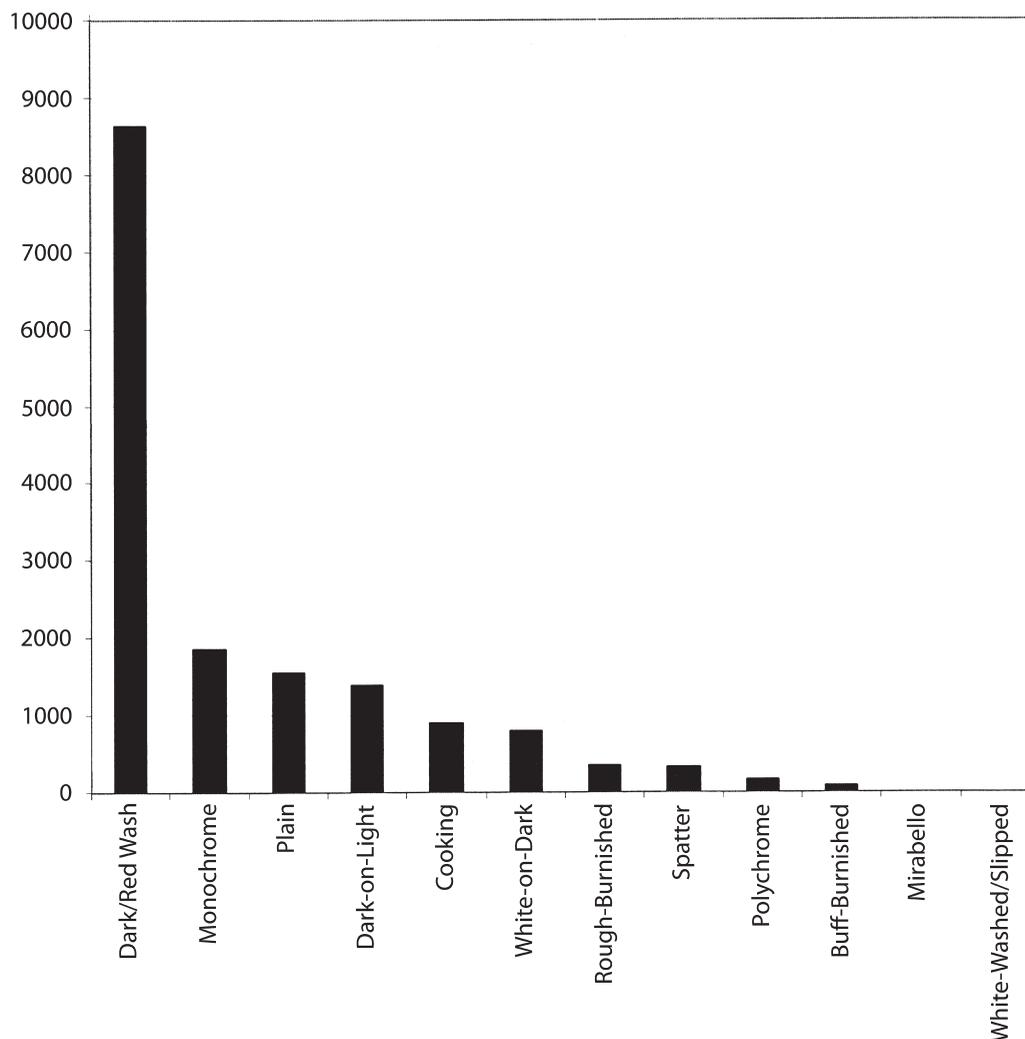


Fig. 27. Relative quantities of sherds from the Lakkos deposit, by ware group (n=16,667).

membership while emphasizing the identity of “unequal and exclusive commensal circles.”¹⁴⁸ The feast itself becomes a “diacritical symbolic device,” emphasizing and codifying status distinctions¹⁴⁹ through the use of specialized implements, food, drink, garments, and language. The implements of the diacritical feast, such as special vessels, are important archaeological correlates because of their survivability as artifacts and their intrinsic functional or symbolic value. The objects play a critical role as visual interactors in a social process that privileges the style of consumption over the quantity or range of materials consumed.¹⁵⁰

Styles of consumption could encompass a wide range of materials, including fancy vessels such as fine tablewares and special serving implements, prestige goods, and certain foods and drinks requiring specialized knowledge of production, preparation, and serving. In combination, these components of the feast would constitute a social-symbolic syntax, both defining elite group membership and communicating the boundaries of elite competition.¹⁵¹ Hamilakis, for example, has linked social rituals of wine drinking directly to palatial power in the Neopalatial period as the means of expressing and legitimizing elite status while attract-

¹⁴⁸Dieter 2001, 85; see also 1996, 98.

¹⁴⁹Dieter 1996, 98.

¹⁵⁰Dieter 1996, 98.

¹⁵¹Hayden 1996, 129, 137–39.

ing and maintaining followers who were potential laborers.¹⁵² Other symbolic markers that do not survive as well archaeologically probably played roles along with the pots: decorated garments, textiles, jewelry, or sealstones; vessels of perishable plant materials such as wood, reeds, or gourds; body paint, gestures, vocal and inscribed language, and other expressions of specialized knowledge.

Thus, of considerable interest in trying to understand the meaning and function of the Petras Lakkos assemblage is the evident use of special-function and elaborately decorated serving and drinking vessels.¹⁵³ The vessels embody and transmit meanings of status association by virtue of their origin and mode of manufacture;¹⁵⁴ evident quality and investment of labor and time in production;¹⁵⁵ their contents (e.g., wine or other alcohol);¹⁵⁶ imitation of rare or prestige goods of metal, shell, or stone; and their recognized use in contexts of ritual and gift exchange.¹⁵⁷ By and large, Protopalatial fine tablewares (esp. Kamares Ware) have been effectively connected to systems of administered production and patterns of elite exchange and consumption with the palaces.¹⁵⁸ The skeuomorphic features of much Polychrome Ware and White-on-Dark Ware—the sharp, angular lines of carinated cups and bridge-spouted jars; surface ribbing and rilling; rivet-like pellets; and the thin walls of many fine moldmade and wheelmade pieces—have long been held to imitate or evoke the qualities of metal prototypes,¹⁵⁹ perhaps not unlike Classic Maya polychrome vessels imitating gourds used in ritualized competitive feasting.¹⁶⁰ The highly elaborate decoration, palatial locales of consumption, and evidence of interregional exchange place these vessels squarely in the systemic context of large-scale elite drinking/dining activities in which the pots were meant to symbolize social status while articulating ritual meanings.¹⁶¹

As in the central Cretan Kamares Ware tradition, polychromy is an important design component of the

Lakkos assemblage. Polychrome Ware is, however, only one of several ware groups that are formally and stylistically juxtaposed in the deposit as drinking/dining sets (see table 3). It is the diversity and physical apposition of the groups that suggest extreme “stylistic interaction,” a vivid term that Cherry has used to describe the interplay between ceramic traditions of independent but interacting polities, including imitation and the opposing tendencies of standardization and variation of wares and design principles.¹⁶² How, then, did the Lakkos wares relate or interact visually and symbolically in a context of palatial eating and drinking practices?¹⁶³ Following Pollock’s work on Susiana pottery in southwest Iran, Borgna has recently found evidence of horizontal variability in the stylistic elaboration of fine tablewares in the Late Minoan IIIB–C transition on Crete: qualitatively complex designs with considerable variation and alteration of decorative motifs.¹⁶⁴ This formal diversity and stylistic variability suggested a late LM IIIB context of extreme social competition, a “balanced confrontation among equal social components.”¹⁶⁵ A similar diversity and variation exists in the Lakkos assemblage, where the multiplicity of stylistically distinctive ware groups across the drinking/dining sets suggests an overall low level of redundancy; this suggests aspects of Pollock’s horizontal variation: the extreme variation, alternation, and substitution of decorative elements. The tendency toward standardization and even formal redundancy of design components within each ware group (and drinking/dining set), however, suggests a different and cooperating dynamic: extremely repetitive and visually distinct symbolic sets emphasize the quantity of motifs and the degree of elaboration, forming, perhaps within each group, internally consistent messaging devices. The high level of labor investment, evidence of specialization of production, and the resultant stylistic standardization within each ware group present a clustering or concentration of stylistic

¹⁵²Hamilakis’ (1996, 25) model suggests a form of feasting not unlike Hayden’s (1996) economic and entrepreneurial types (see also Dietler 1996), although he also stresses the importance of factional competition among elites (Hamilakis 2002), which finds strong material correlates in the Protopalatial record (Schoep 2002, 118).

¹⁵³Dietler 1996, 98; Hayden 1996, 138–39.

¹⁵⁴On modes of production, see Rethemiotakis and Christakis (2004, 170) and Knappett’s (1999a, 629) discussion of Sinopoli 1988.

¹⁵⁵Hayden 1996, 138–39.

¹⁵⁶Dietler 1996, 90–1; Hamilakis 1996, 25.

¹⁵⁷Pollock 1983, 360–61.

¹⁵⁸Walberg 1976, 126; Betancourt 1985, 95–102; Cherry 1986, 35–8; MacGillivray 1987, 277–78; Knappett 1997; 1999a,

628–35; Day and Wilson 1998, 352, 356–57; 2002; Schoep 2002, 115–18.

¹⁵⁹Walberg 1976, 34–9; Betancourt 1985, 80, 101; Cherry 1986, 37; MacGillivray 1998, 56–7; Day and Wilson 2002, 159–60; Knappett 2005, 144–45, 154–55; Day et al. 2006, 36. Cf. Day and Wilson (2004, 53) for discussion of Prepalatial skeuomorphism.

¹⁶⁰Clark and Parry 1990; Clark and Blake 1994, 27; Hayden 1996, 139.

¹⁶¹Cherry 1986; Day and Wilson 1998, 356–57.

¹⁶²Cherry 1986, 37–8.

¹⁶³Day and Wilson 1998, 356.

¹⁶⁴Borgna 2003, 161; 2004, 248.

¹⁶⁵Borgna 2004, 248.

markers or groups of repeated messages—Pollock’s vertical variability.¹⁶⁶

What is interesting about the Lakkos assemblage, however, is the visual juxtaposition of these wares and the different stylistic messages that might relate the identities of different social groups using the vessels.¹⁶⁷ It is possible that regional differentiation of Protopalatial styles¹⁶⁸ was part of a dynamic of social competition between corporate or lineage-based groups in communal and competitive contexts of interaction.¹⁶⁹ Precisely this kind of interaction has been postulated by Knappett for sites such as Myrtos Pyrgos, located within the Malia state (see fig. 2); the analysis of the MM II Pyrgos wares demonstrates stylistic links not only with Malia but also with Palaikastro and the Mesara.¹⁷⁰ Knappett suggests that elite preferences within consumption practices may explain aspects of stylistic diversity at Pyrgos. Here, the ceramic evidence shows that linkages with other sites may be rooted in economic interaction with, or stylistic emulation of, a politically superior palatial center as well as in processes of elite social interaction—an intrapolity rather than interpolity dynamic. The stylistic messaging, then, is important in defining the nature of the interaction and the participants.

If the Lakkos is the result of the accumulation of debris from diacritical feasting—a political context of exclusion, competition, and assertion of social identities—then who were the participants, and how might we characterize the nature of their interaction? At Pyrgos, the diverse styles seem to represent various connections with nearby and distant centers. Similarly at Petras in MM IB, the stylistic diversity is sharply defined; the fine tablewares are sorted into distinctive groups that we might, in the first instance, relate not to regions or sites but to social groupings that need not be too distant from the Petras center itself. Indeed, the majority of fabrics are arguably local to the Siteia region. Other forms of evidence might allow us to visualize the structure and constituency of these local groups. At Protopalatial Malia, for example, Schoep has identified a multiplicity of “elite complexes” in various areas

around the palace (e.g., Quartier Mu) that reflects a heterarchy (potentially competing factions), in which group identity was based on corporate affiliations rather than class distinctions.¹⁷¹ The reduplication and formal redundancy of elite residences, workshops, assemblages of administrative documents, ritual buildings, and burial complexes at Protopalatial Malia point to competing elite kinship groups that represented counterpoised sources of power in the early palace, negotiating the economic and political concerns of the nascent state, perhaps in the ceremonial/ideological center of the palace itself. Schoep’s analysis provides a vivid single-site study complementary to the regional scale of Knappett’s assessment of the material patterns at Myrtos and Malia. It underscores the corporate character of social interaction, the importance of symbolic (and ideological) production and display within the center, and the potentially diverse sources of that production, which would include implements and objects for ritual consumption, including pottery.¹⁷²

The diverse styles in the Lakkos pottery groups could then mirror not only various production modes or centers within a hypothetical territory of Petras¹⁷³ but also the social groups responsible for their manufacture, distribution, and use. The apparent horizontal stylistic variability, if visualized in a context of diacritical feasting, suggests the existence of distinctive social markers—symbols that may identify individual kinship-corporate groups interacting in a common ceremonial sphere. This communal venue would have emphasized competitive display and projection of distinct or special roles of participants of equal or contested rank.

While drinking and pouring vessels are represented across the main fine ware categories, other forms are more limited and may be linked to certain groups.¹⁷⁴ Saucers, for example, are found primarily in Spatter Ware, while one-handled conical and round cups are overwhelmingly represented in Rough-Burnished Ware. Angular and carinated cups are most common in White-on-Dark Ware and Polychrome Ware, with fewer examples in Rough-Burnished, Spatter, Monochrome, and Plain Wares. The greatest form variation appears

¹⁶⁶ Pollock 1983, 363.

¹⁶⁷ Day and Wilson (2004, 55–6) discuss the visual impact of decorative elements, their location on the vessel wall, and the implications for understanding the context of use and display.

¹⁶⁸ See Walberg (1976, 2) and Cherry (1986, 37) for discussion of the Kamares tradition.

¹⁶⁹ See Borgna’s (2004, 259) different modes and contexts of feasting at Protopalatial Phaistos.

¹⁷⁰ Knappett 1999a, 630; 1999b, 103. Cf. Day and Wilson’s (1998) argument for interpolity gatherings as the loci for ritualized consumption of prestige goods such as Kamares Ware

in highly visible and conspicuous displays.

¹⁷¹ Schoep 2002, 117.

¹⁷² Knappett 1999a, 630–31; Schoep 2002, 112–15.

¹⁷³ Papacostopoulou and Tsipopoulou 1997; Tsipopoulou 1997, 1999b.

¹⁷⁴ Even if the presence or absence of various forms is conditioned by modes of production, the character of the sample, and post-depositional formation processes, it is also a result of social distinctions, special ritualized roles of the users, and the social process of the event of use or discard.

among the White-on-Dark Ware and Polychrome Ware vessels, which also display an abundance and accumulation of design elements within a standard set of design principles. The opposite is true for decoration in Spatter, Rough-Burnished, Monochrome, and Plain Wares, which appear either simple (Plain Ware and Monochrome Ware) or with endless random variation (in Spatter Ware and Rough-Burnished Ware); these should perhaps reflect more horizontal than vertical distinctions within the groupings. Fruitstands, perhaps specialized (if not ritual) serving vessels, are found in Polychrome, White-on-Dark, Monochrome, Plain, and Rough-Burnished Wares, with the largest number in the rather plain and coarse Dark/Red Wash Ware category. It is likely that these large vases, similar to the EM I chalice and pedestaled bowl, were meant for communal serving of food and drink rather than for individual use or display.¹⁷⁵ The distinction between communal and individual functions emphasizes different aspects of consumption reflected in the Lakkos deposit. Different sets of wares could indicate different groups and subgroups and necessarily different modes of consumption—that is, various kinds of feasting or different stages of the same feast.

In separate studies, Borgna and Knappett have pointed out differences in formal and stylistic patterns represented in Prepalatial and Protopalatial pottery. In general, the Early Minoan assemblages seem to lack the differences in quality, the diversity of forms and wares, and perhaps even the distinctive drinking sets that would suggest individualizing display or potentially exclusive or elite group definition.¹⁷⁶ Borgna characterizes the Prepalatial pattern as consisting of “communal involvement rather than restricted social exchange.”¹⁷⁷ In contrast, at Protopalatial Phaistos, different contexts seem to correspond to different modes of feasting within the palace: the Kamares deposits are exclusive to the inner ceremonial rooms of the palace, while a preponderance of plain ware comes from the area of the central court.¹⁷⁸

Along similar lines, Knappett’s analysis of a deposit at Knossos that is contemporary with the Lakkos presents a convincing case for ceramic styles representing a “hierarchy of quality.”¹⁷⁹ The character and condition of the deposit from the southwest area of the palace indicate a temporal and spatial contiguity—pots used

at the same time and in the same place—with qualitatively meaningful differences in the forms: a diversity of types ranging from the crude or mundane goblets to the finest eggshell wares. Knappett postulates that the varying quality, suggested by differences in manufacturing technology, reflects some aspects of social hierarchy among the pots’ users: the abundant plain and crudely made wares may have had a deindividualizing meaning, reflecting also a difference in status of their users, perhaps like the feast participants using Borgna’s plain wares from the central court at Phaistos. The abundance and poorer quality of these wares could, therefore, indicate a more inclusive or “common” group identity—a larger collective of lower-status participants—distinguished from the users of the eggshell ware, which is individualizing (i.e., expressive of relative exclusivity, in this case, of elite status). The Knossian and Phaistian examples demonstrate a hierarchy of quality in which the individual users, acts, and places of consumption are connected to certain vessel forms and decorative styles.¹⁸⁰ Underlying the use contexts is the negotiation of various status expressions and an ordering of ranked social roles. The individual drinker, whether part of a communal group or an elite stratum, emerges as an identifiable agent in the social process. The qualitative diversity suggests a vertical complexity based on degrees of technical refinement (and expended energy in production).

In the Lakkos, Monochrome, Plain, and Dark-on-Light Wares are by far not only the most common but also the most simple and plain in form and style. White-on-Dark, Rough-Burnished, Spatter, and Polychrome Wares are represented in descending quantities, Polychrome Ware being at the far end of the spectrum, with the lowest sherd count (see fig. 27). It is notable that Polychrome Ware also has the most complex decorative schemes and skeuomorphic forms as well as the widest range and variations of forms. The differences in the relative amounts of pottery may reflect varying numbers of participants using the different wares and their relative status in the feast—with Monochrome Ware and Polychrome Ware users representing, as in Knappett’s framework, extremes of differently composed groups of participants. That said, the White-on-Dark, Polychrome, Spatter, and Monochrome Ware groups show about the same proportion of drinking to

¹⁷⁵ Day and Wilson (2004, 55) emphasize the “sharing of drink between a number of people” in the EM I context.

¹⁷⁶ Borgna 2004, 258–59; Knappett 2005, 140. For a nuanced view of Prepalatial patterns, see Day and Wilson 2004, esp. 55.

¹⁷⁷ Borgna 2004, 259.

¹⁷⁸ Borgna 2004, 259.

¹⁷⁹ Knappett 2005, 147–48.

¹⁸⁰ Knappett 2005, 148. Driessen (2002, 9–10) maps the functional areas of the palace, particularly the courts, in terms of degrees of segregation of various groups participating in public ceremonies that were variously collective and more specifically exclusionary.

pouring vessels (7:1), distinguishing them from Plain Ware and Dark-on-Light Ware, which may not form coherent sets, or even ware groups.¹⁸¹

If we extend Knappett's model to design elements and decorative schemes, we can begin to see a dynamic of stylistic interaction in the Lakkos groups. The tendency toward elaboration and complexity of design emerges in White-on-Dark Ware and Polychrome Ware, setting them apart from Rough-Burnished Ware and Spatter Ware—to say nothing of Monochrome, Plain, Dark-on-Light, or Dark/Red Wash Wares. Skeuomorphs (very thin-walled carinated, beveled, and S-shaped cups), although not as fine as eggshell ware, are present in White-on-Dark Ware and Polychrome Ware (see figs. 6a, f, g, 8d, e, 10) but conspicuously absent among Rough-Burnished Ware and Spatter Ware, although Monochrome Ware forms show skeuomorphic trends. Even so, I hesitate to construct a strict qualitative hierarchy based on form alone. Although the technical proficiency and range of forms, as well as labor/time investment, appear to have been less in the Rough-Burnished Ware and Spatter Ware groups, they are nonetheless distinctive in their carefully controlled redundancy of design features and adherence to the core repertoire of forms (carinated, round, and conical/one-handled cups and tumblers); only the beveled cup seems to be missing from the Spatter Ware assemblage. I would not call either group mundane or crude, to use Knappett's nomenclature. On the one hand, if either ware represents a tendency toward the low end of the qualitative spectrum, there is a certain intentionality that could be related to specific functions or roles that are not explicitly hierarchical in origin. Such roles might include use of certain wares or forms that might be appropriate to specific kinds or parts of feasts or rituals, or even different drinks and foods consumed. On the other hand, while each group is distinctive in its own right, and the spatter and burnished patterns create seemingly endless but subtle variations on a theme, there are few uniquely distinguishing or individualizing characteristics. The hieroglyphic signs 041 and 060 inscribed on Rough-Burnished Ware vessels in the sample studied may be exceptions (see fig. 17h–j). The Rough-Burnished Ware and Spatter Ware groups could reflect the same kind of vertical complexity as White-on-Dark Ware or Polychrome Ware in terms of redundancy and accumulation of design features, but there is a visual sameness within the former groups that contrasts sharply with the great variety of exclusive

attributes in the latter. With White-on-Dark Ware and Polychrome Ware, we might presume not only a high level of energy or labor/time investment in the execution of the painted and plastic patterns and complex compositions but also the purposeful use of exclusive if not unique designs and combinations.

As mentioned above, certain special-function vessels in Polychrome Ware and White-on-Dark Ware, such as tripod forms and elaborately decorated fruitstands, seem to fall conspicuously outside the standard drinking/dining set; these fancy vessels could represent a stylistically individualizing extreme in opposition to the bulk of the fruitstands that appear in Monochrome, Rough-Burnished, and coarse Dark/Red Wash Ware categories. I wonder if these were not meant to deemphasize either individual or subgroup identity, being made for use in certain rituals or components of the feast that were more inclusive or symbolically communal in character.¹⁸² Therefore, the design elements in the “higher-order” groups of White-on-Dark Ware and Polychrome Ware comprise complex variations of compositions or motifs with individualizing meanings or functions. In light of Knappett's framework for Knossos, the Monochrome, Rough-Burnished, and Spatter Wares, and indeed the Dark/Red Wash Ware fruitstands, would then represent more communal, or less individualizing, forms and deindividualizing meanings.

Symbolic Transference

If we set aside for now Knappett's qualitative hierarchy—an assemblage of ranked forms reflecting status distinctions—we should consider what the decorative schemes of White-on-Dark Ware and Polychrome Ware might tell us about this tendency toward the use of individualizing or exclusive attributes and perhaps the individuals or groups exploiting these forms. This is a daunting task, especially if one considers the extent of elaboration and sheer variety of combinations of elements that make up the Kamares, Polychrome, and White-on-Dark Ware traditions. Central Cretan Classical Kamares Ware and perhaps east Cretan Prepalatial White-on-Dark Ware represent extremes of stylistic elaboration; the Lakkos wares are perhaps less elaborate, representing a stage and context of stylistic rationing that could allow for an easier parsing of the elements. An interesting characteristic of White-on-Dark Ware and Polychrome Ware in the Lakkos is the framing of either repeated or individual isolated

¹⁸¹ Plain Ware and Dark-on-Light Ware groups demonstrate a very different pattern (2:1), probably indicating that they were not functionally equivalent to the others. Indeed, they are defined not by a specific decoration or surface treatment

but rather by the absence of decoration in the former and a wide variety of linear and blob elements in the latter.

¹⁸² Cf. Day and Wilson (2004, 55) for a similar function of EM I chalices and pedestaled bowls.

designs by diagonal lines or banding (see fig. 6c, d). While many elements such as arcs, dots, alternating floral patterns, disc spirals, simplified S-spirals, and foliate bands are common decorative features (esp. in the east Cretan Polychrome Ware tradition), an array of individual motifs stands out, showing a strong correspondence both to seals and Cretan hieroglyphic designs.

The cross (307Σ), dotted cross (070), linked dots (065), hatched-V (028), S-spiral (309), tri-bar dotted branch (031), whirling motif (033), and cross-hatched band (039) are recognizable Cretan hieroglyphic signs,¹⁸³ mostly syllabograms, forming decorative motifs on White-on-Dark Ware and Polychrome Ware in the Lakkos groups (fig. 28). On two one-handled cups in Rough-Burnished Ware (see fig. 17h, i), sign 041 is inscribed; its presence may argue for intentionality in the use of these motifs to indicate or recall the signs within the hieroglyphic corpus, especially given that seals commonly reproduce these same signs.¹⁸⁴ Other motifs within the Lakkos decorative repertoire appear on contemporary seals and sealings (see fig. 28): anti-thetical J-spirals and fleur-de-lis; dotted foliate bands; semi-swastikas, Vierpasses, and whirling motifs;¹⁸⁵ torsional S-spirals (pictorial and nonpictorialized); crosses; detached and petaloid J-spirals; pictorial motifs (fish, human); simple and complex C-spirals; ladder bands; cross-hatched bands; and dot clusters and rosettes. On the pots, these design elements tend toward the essential linear and outline forms of the geometric, figural, pictorial, and hieroglyphic patterns that we see on the seals. While the potential is there for more fluid treatment of the individual motifs—the pot surface is less restricted than the narrow frame allowed by the stamp and prismatic seals—the painter seems to have wanted to maintain the linear simplicity and essential outline qualities of the seal forms.

Walberg has pointed out that the outline motifs on Kamares Ware vessels from the Archivio di Cretule at Phaistos, which also appear as elements on the sealings from the same deposit, are better suited to the flat surfaces and facets of the seals.¹⁸⁶ Even though she is reluctant to posit a direct line of transference from seals to pots,¹⁸⁷ the correspondence is striking, and

the potential for a bilateral production of meaning should be considered in light of the Lakkos motifs. The original direction of influence is perhaps important, especially in the reproduction of the hieroglyphic signs (see fig. 28). If one considers the relationship between sealing systems and writing in understanding the formation of administrative structure, seal images (as both intaglio and relief) may well be a pivotal source of iconographic information linking decorative schemes on pottery with other symbols of power in the emerging/emergent palace-as-state.¹⁸⁸

In the Lakkos White-on-Dark Ware and Polychrome Ware groups, there is perhaps a visual emphasis on the pattern or motif through outline, repetition, framing, and contrast that seems to be executed at the expense of the overall aesthetic.¹⁸⁹ Indeed, the variation of designs and complexity of composition in both ceramic and sealstone media could well indicate stylistic interaction and symbolic reproduction—coevolving means to a similar end. The complex combination of motifs that we face in the Lakkos Polychrome Ware and White-on-Dark Ware (as in Classical Kamares Ware) could well be evidence of Pollock's "vertical complexity": a tendency toward an extreme abundance and elaboration as competing elites within a high-ranked subgroup expressed increasingly layered and cumulative patterns of distinction based perhaps on an original definable and limited syntax.

This correspondence between inscribed and decorative/pictorial seals, hieroglyphic inscriptions, and pottery is striking if the actual stemmata of origins or intended meanings are not readily apparent. While I have not examined the sealings from the MM IIB hieroglyphic archive at Petras, a direct syntactic combination of motifs is unlikely to emerge. The whirling design 033 (see figs. 6d, 28e) does, however, appear on a four-sided bar (PE Hh 2); and the dotted cross (070), a common White-on-Dark Ware motif (see fig. 28a), is preserved in a door/chest sealing (PE 010) from the Petras archive.¹⁹⁰ A recently published conoid stamp seal from the Lakkos is also relevant here. It depicts a human figure with arms outstretched, holding a scepter in one hand and an unidentified object in the other (fig. 29).¹⁹¹ The human figure on the seal

¹⁸³ Olivier et al. 1996.

¹⁸⁴ Olivier et al. 1996, 62, 186–291; Schoep 1999, 266–67; 2006, 46–7; Krzyszkowska 2005, 95–8.

¹⁸⁵ Whirling motifs—such as Walberg's (1983, pl. 41) designs 11 (iv) 3 and 11 (iv) 4, variations on the Vierpass ("consisting of many elements")—show a strong correlation to the hieroglyphic sign 033 at both Malia (Olivier et al. 1996, 398) and Petras (Tsipopoulou and Hallager 1996a, 165, fig. 1) where it appears on a four-sided bar (PE Hh 2).

¹⁸⁶ Walberg 1985, 397–405; see, more recently, Weng 2002.

¹⁸⁷ Walberg 1985, 404–5.

¹⁸⁸ Schoep 1999, 266–67; 2006, 46–7.

¹⁸⁹ Walberg (1985, 405) notes the aesthetic dynamic of whirling motifs and their suitability to the sealstone medium in marked contrast to the three-dimensional vase surface.

¹⁹⁰ Tsipopoulou and Hallager 1996a, 165–67.

¹⁹¹ Rupp 2006.

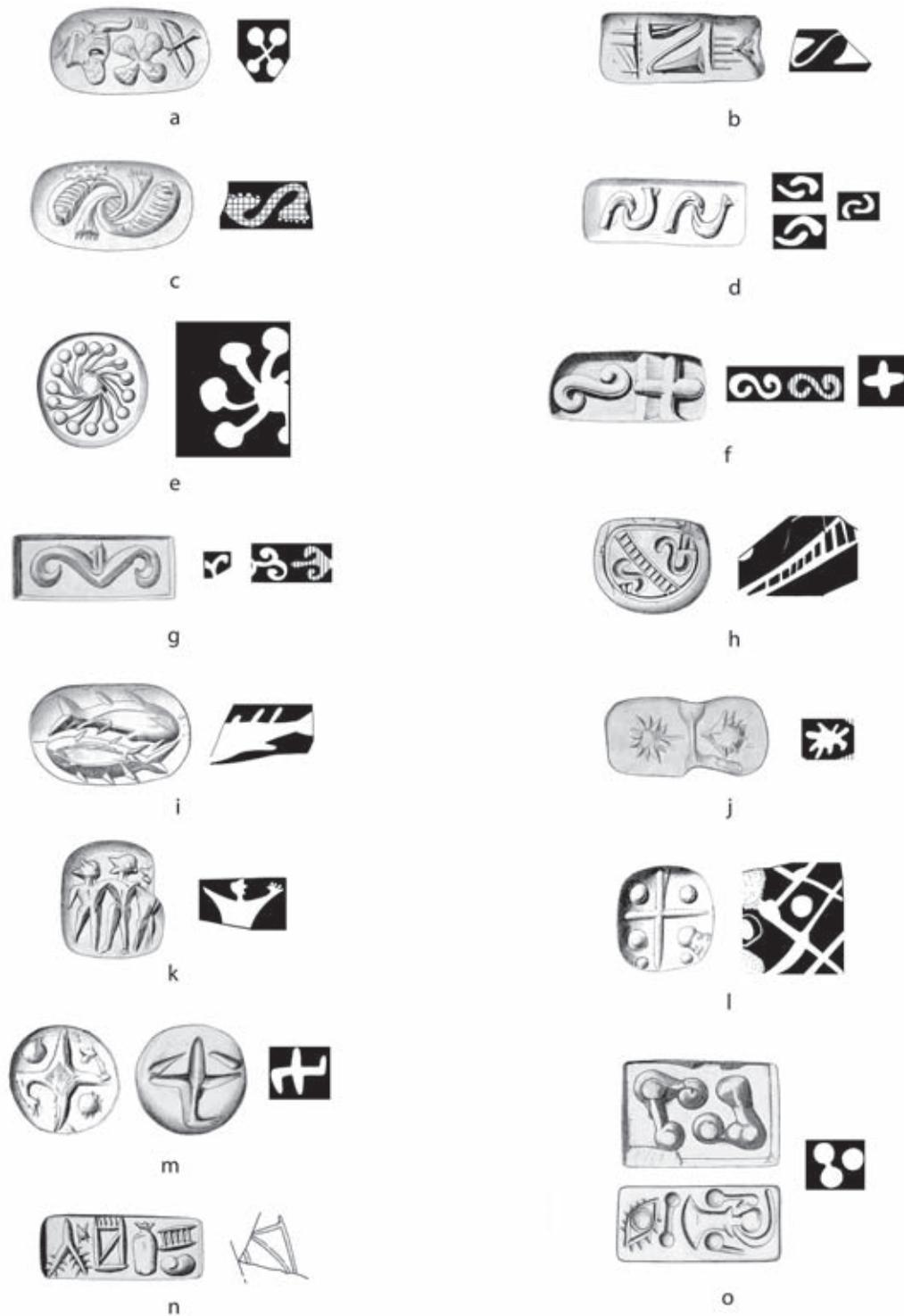


Fig. 28. Comparison of common Protopalatial seal designs and Lakkos White-on-Dark Ware and Polychrome Ware motifs: *a*, left, CMS 2(2), no. 78; right, L225 (hieroglyphic sign 070); *b*, left, CMS 2(2), no. 229; right, L162; *c*, left, CMS 2(2), no. 78; right, L468; *d*, left, CMS 2(2), no. 229; top, L15; bottom, L664; right, L638; *e*, left, CMS 2(2), no. 236; right, L164 (hieroglyphic sign 033); *f*, left, CMS 2(2), no. 217; center, L686 (hieroglyphic sign 309); right, L165 (hieroglyphic sign 307); *g*, left, CMS 2(2), no. 153; center, L685; right, L368; *h*, left, CMS 2(2), no. 310; right, L446; *i*, left, CMS 2(2), no. 276; right, L309; *j*, left, CMS 2(2), no. 255; right, L685; *k*, left, CMS 2(2), no. 245; right, L311; *l*, left, CMS 2(2), no. 61; right, L300; *m*, left and center, CMS 2(2), no. 292; right, L667; *n*, left, CMS 2(2), no. 227; right, L215 (hieroglyphic sign 041); *o*, top, CMS 2(2), no. 169; bottom, CMS 2(6), no. 245; right, L150 (hieroglyphic sign 065) (*a–o*, nos. 78, 229, 236, 217, 153, 310, 276, 255, 245, 61, 292, 227, 169 after Platon et al. 1977; *o*, no. 245 after Platon et al. 1999).

has the same kind of triangular torso as a white-painted figure on a Polychrome Ware jug or jar from the Lakkos (see fig. 28k). Above the figure's left shoulder is the hieroglyphic sign 065, which is a common decorative motif in White-on-Dark Ware as well as on Protopalatial sealstones (see figs. 7, 28). Rupp sees the figure with the scepter as an example of emerging ruler iconography in a context of intra-elite social interaction and political competition, which he links to rituals of public commensality suggested by the associated Lakkos pottery.¹⁹² What is interesting is the highly individualizing iconography of the seal: a person holding a symbol of political or ritual authority accompanied by a seemingly random hieroglyphic filler motif.

On the pots, such hieroglyphic signs are found in isolation or in repeated patterns, usually framed by arcs, loops, and bands. Were the designs, even unequivocally hieroglyphic signs, on pots meant to be "read" like inscribed sealings or hieroglyphic documents? For the Lakkos motifs, as well as the conoid seal mentioned above, this seems unlikely. While Sbonias has persuasively connected hieroglyphic formulas on seals (the so-called libation formula) to the emerging institutionalization of palatial authority,¹⁹³ Krzyszkowska has pointed out that even among the inscribed seals, where they could refer to possible titles, offices, or roles, few show syntactic patterns repeated exactly in the documents.¹⁹⁴ She speculates that both inscribed and pictorial/decorative motifs may be symbolic or emblematic in their own right, perhaps communicating the status of the seal owner or user exclusive of any direct meaning of the inscription itself.¹⁹⁵ Krzyszkowska's observation is important because it blurs the distinction between textual and decorative designs used in seals, such as the example from the Lakkos itself (see fig. 29). This would strengthen an argument that the transference of meaning between administrative documents, seals, and pottery—and perhaps other media such as figurines or textiles—need not have required a one-to-one correspondence in the syntactic patterns for the different objects to convey similar meanings.¹⁹⁶ The correspondence suggests a dynamic visual and symbolic interaction between media: the de-

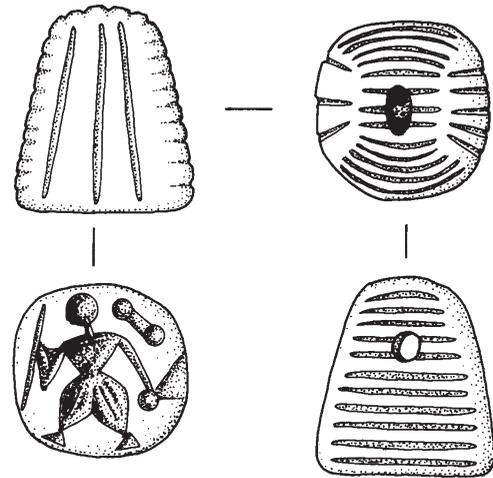


Fig. 29. Conoid stamp seal from the Lakkos deposit (drawing by D. Faulmann; after Rupp 2006, fig. 2).

signs on the Lakkos pottery could comprise a system of abbreviations or ligatures that served to emulate or reflect the designs on seals, evoking aspects of the evolving meaning of the latter.¹⁹⁷ Schoep has argued that in MM IA, links between writing and inscribed seals could indicate symbolic rather than formal administrative or practical functions:¹⁹⁸ instead of being exclusively instruments of economic interaction, seals were a reflection, if not a formal signal, of status within ritual contexts of elite competitive interaction.¹⁹⁹ The symbolic connotation of designs on both decorative and inscribed seals might then allow us to see similar motives behind the employment of specific designs in the White-on-Dark Ware and Polychrome Ware groups at Petras. Could the designs have been variously constructed and combined to be symbolic of group or subgroup identity, differentiating collectives and individual users? In the White-on-Dark Ware and Polychrome Ware assemblages, motifs were not meant to be read as text per se but as individual symbols reflecting the status, role, or identity of individual actors in rituals of commensality. This brings these ware groups

¹⁹² Rupp 2006, 271–73.

¹⁹³ Sbonias (1999, 45–6) argues that the change in seal use between Prepalatial and Protopalatial periods involved a marked decrease in competitive display, with seals identifying or symbolizing not individuals of high status but rather the corporate institution of the palatial administration.

¹⁹⁴ Krzyszkowska 2005, 97–8. See also Weingarten (1990, 107) for discussion of possible meanings of inscribed seals: "whether names or titles, invocations, or ornamental signs of ownership."

¹⁹⁵ Krzyszkowska 2005, 97–8.

¹⁹⁶ See Nikolaidou (2002, esp. 84–90) on the links between seal motifs, ceramics, textiles, and figurines.

¹⁹⁷ See Nikolaidou (2002, 89) on different contexts of seal use and display conveying different meanings, and Schoep (2004, 290) on changing sealing practices and seal forms related to different interacting groups.

¹⁹⁸ Sbonias 1999, 27, 35, 43–6, 45–8; cf. Watrous 2001, 219.

¹⁹⁹ Sbonias (1999, 46) acknowledges a connection between Prepalatial and Protopalatial seals, involving the use of symbols and eventually religious formulas in hieroglyphics as a means of legitimizing authority.

into focus within contexts of display and consumption similar to Day and Wilson's placement of Kamares Ware "in a specialized context . . . used to symbolize social status and convey ritual meaning."²⁰⁰

The impact, importance, or meaning of the individual designs-as-signs within the context of consumption at Petras need not be directly tied to an existing palatial administrative system for which there is no stratigraphic evidence until MM II.²⁰¹ At Petras itself, it is interesting that the actual architectural evidence for the palace is an MM IIA foundation, with the archive an MM IIB installation. Thus, Tsipopoulou considers the Lakkos itself to be a fundamentally prepalatial phenomenon, perhaps foreshadowing the emergence of the palace, but not by definition, palatial in context.²⁰² This is not merely a problem of semantics, the definition of "palace," or the vagaries of excavation. Petras appears to have undergone a significant transformation in the MM IB–IIA transition. So while we cannot know the original context of the Lakkos assemblage, it evidently involved the use and display of a wide range of cult vessels, stone vases, seals, and drinking and dining equipment—some wares, like Polychrome Ware, with clearly elite connotations—in an event or events closely associated with the area that was to be later occupied by the Protopalatial palace.

The painted designs on the White-on-Dark Ware and Polychrome Ware, reflected in distinctly palatial media such as inscribed seals and hieroglyphic documents, also appear in another context: the painted medallions on terracotta figurines from the peak sanctuary at Petsophas (fig. 30c). Traces of painted pendants on male peak sanctuary figurines are notoriously difficult to detect and decipher, but some examples from Petsophas are preserved and give a hint of the range of possible design elements.²⁰³ While it is clear that some figurines were quite plain, studies of their gestures, weapons, and clothing have successfully sorted out aspects of ritual and potential social roles of groups and participants in the peak sanctuary cult.²⁰⁴ Peatfield has noted interesting contrasts between examples from Petsophas and Atsipades, suggesting that the plainness, poorer quality, coarser clay, and lack of

painted embellishments among the Atsipades group may be related to the sanctuary's rural or nonpalatial status; the fine painted Petsophas types he links directly to specialized ceramic production in the town of Palaikastro.²⁰⁵ One wonders if painted decoration and, indeed, quality of production are not only connected to the economic status of associated settlements but also to the complexity of social roles (and therefore status markers) of individuals participating in peak sanctuary rituals, a kind of qualitative hierarchy similar to that of the MM IB ceramic assemblage defined by Knappett at Knossos. Peatfield has emphasized the tendency toward individualizing characteristics in peak sanctuary figurine groups; rather than standardized votary symbols of "prayer" or "adoration," they are active players in a performative discourse.²⁰⁶

In the Petsophas group, there are a few preserved painted pendants with designs that include antithetical J-spirals (see fig. 30); five-bar vertical zigzags, or "sigmas" (see fig. 11g); fleur-de-lis (see fig. 10c); dotted circles (see fig. 6h); and the "Lorraine cross" (see fig. 8c); all these designs are also found among White-on-Dark Ware and Polychrome Ware motifs in the Lakkos assemblage.²⁰⁷ This connection between painted medallions and design elements in Protopalatial pottery is well established.²⁰⁸ Sapouna-Sakellarakis, for example, links the pendants to individuals of elite status, drawing analogies with Egyptian and Anatolian contexts.²⁰⁹ In her analysis, the antithetical J-spiral and the double (or Lorraine) cross have parallels in Syria and Egypt. She suggests that in the Minoan context, these form conscious and conspicuous references to non-Minoan elite artifacts and ideas. In Schoep's view, such symbology was an important source of allusion to foreign social practices, thus displaying exotic knowledge and legitimizing or reinforcing social status.²¹⁰ The appearance of these visual symbols on male peak sanctuary figurines is a striking parallel to their use in ceramic assemblages, perhaps reinforcing patterns of elite display toward similar ends. Late Prepalatial and early Protopalatial peak sanctuaries represent integrating social and economic institutions that functioned in a distinctly heterarchical structure,

²⁰⁰ Day and Wilson 1998, 356. Cf. Walberg (2002, 14–17), who admits both prestige meaning and ritual contexts of consumption but argues against the use of Kamares vessels or designs as projecting elite status or power relationships.

²⁰¹ Schoep 2006, 47.

²⁰² Tsipopoulou 2002, 137.

²⁰³ Rutkowski 1991, 37–47.

²⁰⁴ Rutkowski 1991, 54–7; Hitchcock 1997; Morris 2001; Peatfield 2001.

²⁰⁵ Peatfield 1992, 78–9.

²⁰⁶ Peatfield 2001, 54–5. See Peatfield (1994, 25) on individualizing and communal aspects of peak sanctuary rituals.

²⁰⁷ While Nikolaidou (2002, 87–8) has emphasized that few male figurines have any elaborate accessories, she also points out that jewelry (pendants, neck bands) are most common on males.

²⁰⁸ Rutkowski 1991, 42–3.

²⁰⁹ Sapouna-Sakellarakis 1971, 97–8.

²¹⁰ Schoep 2006, 53.

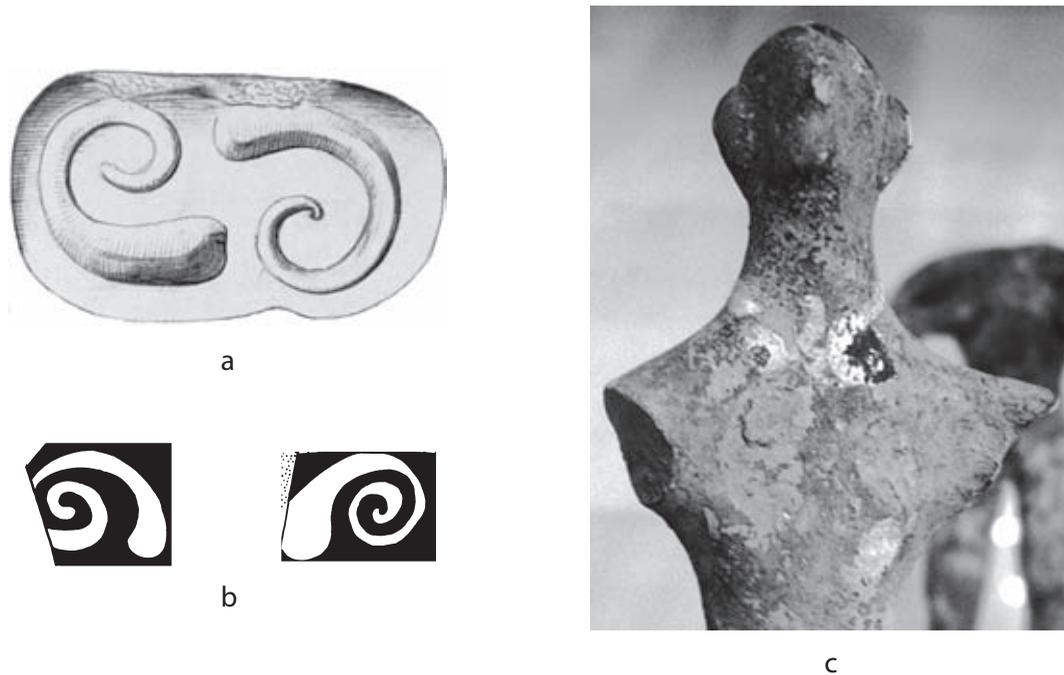


Fig. 30. Comparison of the J-spiral: *a*, sealstone design (HM 1858; after Platon et al. 1977, no. 186); *b*, Lakkos motif (*left*, L249; *right*, L169); *c*, Petsophas figurine medallion (HM 3420).

principally organizing groups of people (rather than goods, commodities, or livestock) while sorting out social and political relationships on the microregional level.²¹¹ An important mechanism of the mediation of group membership and individual ranking in these venues could well have been the use of visual markers of exclusive/elite and inclusive/communal status. Figurines and a variety of adornments or implements (e.g., costume, jewelry, pottery, weapons) with distinctive embellishments could have functioned as active symbols within a ritual system of communal performance. Along these lines, Nikolaidou has concluded that the diversity of formal characteristics of figurines is related not only to gender-role distinctions but also to symbols of individuality or individual markers of identity within social groupings.²¹²

The link between seals, hieroglyphic script, figurine pendants (and actual jewelry), and pottery indicates not only a connection between proto-palace and peak but also to the development of a complex visual system that produced, controlled, rationed, and materially translated symbols into diverse material forms for various venues of communal display. The

evidence for material wealth, craft specialization, and ritual functions among the objects of the Lakkos deposit argues strongly for a context in which crafts and commodities were controlled as symbols of power.²¹³ The diacritical feast is one venue in which the primary implements of consumption of food and drink (the pots themselves) could well have been encoded with visual symbols articulating potentially complementary and competing social roles of individuals as well as corporate groups.

The precise directions of stylistic influence and interaction or symbolic primacy in these various media are not at all easy to trace; gaps include the actual medallions, extant textiles, and the full range of surface decoration on the figurines. An important question is whether the figurines were meant to display actual jewelry worn by individuals or simply were meant to serve as vehicles for the conveyance of the motif or design-as-symbol, making a reference not to an article of adornment but to an individual sign encoding the votive and votary with a social meaning or status. There are no direct links between hieroglyphic signs and the extant medallions, although a fugitive pattern

²¹¹Haggis 1999, 80–1; 2002, 123–24.

²¹²Nikolaidou 2002, esp. 87–8; cf. Peatfield 2001, 54.

²¹³Tsipopoulou 2002, 137; cf. Nikolaidou 2002; Schoep 2006, 51.

on one Petsophas figurine (HM 3418) is likely to be hieroglyphic sign 070 (the dotted cross), which also appears on the published sealing from Petras (PE 010) as well as a common motif in White-on-Dark Ware (see fig. 28a).²¹⁴

Given the present state of the evidence, a hypothetical graphic of potential lines of influence illustrates strong interconnections between the media (fig. 31): we know that hieroglyphic signs were reproduced on pots and inscribed seals, and there is reason to suspect that textile patterns influenced seal design, painted pottery, and the figurines themselves (e.g., representations of clothing).²¹⁵ As outlined above, there is a close association between seals and pots on the one hand, and pots and figurine pendants on the other (see fig. 30). Even within this skeletal framework, it is noteworthy that it is the pottery that shows the greatest number of potential linkages, perhaps emphasizing its importance in mediating and reproducing the signs, patterns, and designs-as-symbols. In Younger's chronological paradigm, there is a strong influence on sealstone design from textile patterns from Prepalatial into Protopalatial, gradually giving way to a legible narrative quality inspired perhaps by the emergence of hieroglyphics as a writing tool. Though Younger dismisses a direct connection between seal designs and pottery decoration (esp. in the early narrative images), favoring a bilateral iconographic source in textile motifs,²¹⁶ it is in the isolated figures and designs where Walberg has recognized a strong correspondence between seals and pots. A bilateral influence between hieroglyphics and seals and hieroglyphics and pottery motifs hardly needs further argument. Although it cannot be proven, what seems most likely is that there was stylistic or iconic interaction—an interconnection and codirectional influence—between pottery, seals, and decorative elements on terracotta figurines. Even if the original direction of influence cannot be recovered with certainty, what is important in the seal-pot-figurine connection is the reproduction and reduplication of individual designs and design elements as potential symbols of individual

or corporate roles, statuses, or identities in contexts of public display. An archaeological analogy for the pattern of symbolic transference presented here is in the Harappan phase (2600–1900 B.C.E.) of the formative Indus state in which steatite intaglio seals contained script as well as pictorial and geometric designs that comprised a system of visual symbols identifying public roles and elite status in the community.²¹⁷ In the Harappan case, the pattern of symbolic transference extends to a variety of media similar to the Protopalatial Cretan examples—seals, pottery, script, jewelry, and possibly textiles—with pottery playing a crucial role in reproducing and articulating group identity and social as well as political hierarchies.²¹⁸

CONCLUSION

It is possible that among the participants in the feasts at Petras in MM IB, ranking could be reflected in a qualitative hierarchy of ceramic forms and vertical variation in decorative patterns in the ware groups. Differences in the relative amounts of wares could also mirror the size of the participating group, degrees of exclusivity of the activities, or the status or roles of the participants. What is striking in the Lakkos is something potentially more complex: the juxtaposition of different ware groups in similar if not equivalent ranges of forms could emphasize distinctions between similar groups, a kind of appositional arrangement articulating a socially leveling ritual of consumption. In addition, a qualitative hierarchy might point to an oppositional structure of competing groups. Within White-on-Dark Ware and Polychrome Ware assemblages, a vertical ordering is evident in the qualities of production technology (and tendency toward skeuomorphs) as well as the abundance and variation in decorative features. The latter could well have been used to articulate positions of special status or the specialized functions of small groups in ceremonial contexts. The pots then become expressions of the identities of emerging sodalities that meant to distinguish individual participants or exclusive membership by using symbols linked to seals, scripts, and peak sanctuar-

²¹⁴Tsipopoulou and Hallager 1996a, 167, fig. 3.

²¹⁵On the correspondence of designs on seals and painted pottery, see Walberg 1985; Weng 2002; cf. Younger 1995, 337. On links between seals and textiles (cloth and costume) as well as other personal adornment, see Younger 1995, esp. 333: "it is possible that these textile patterns were thought appropriate for reflecting administration because they incorporated designs from special costumes, say those of the administrative elite." Sapouna-Sakellarakis (1971) discusses the relationship between figurine adornment, textiles, and contemporary ceramic designs. For the connection between

textiles and Kamares Ware motifs, see MacGillivray 1998, 59; Knappett 2005, 146.

²¹⁶Younger 1995, 336–37.

²¹⁷Kenoyer 2000, 100.

²¹⁸According to Kenoyer (2000, 103–4), "painted pottery itself may not have been of significant wealth value, but since such pottery would have been needed for domestic use and public rituals, anyone desiring to emulate, affiliate, or integrate to this social-ritual-political system would need to acquire and visibly display pottery with appropriate decorative elements."

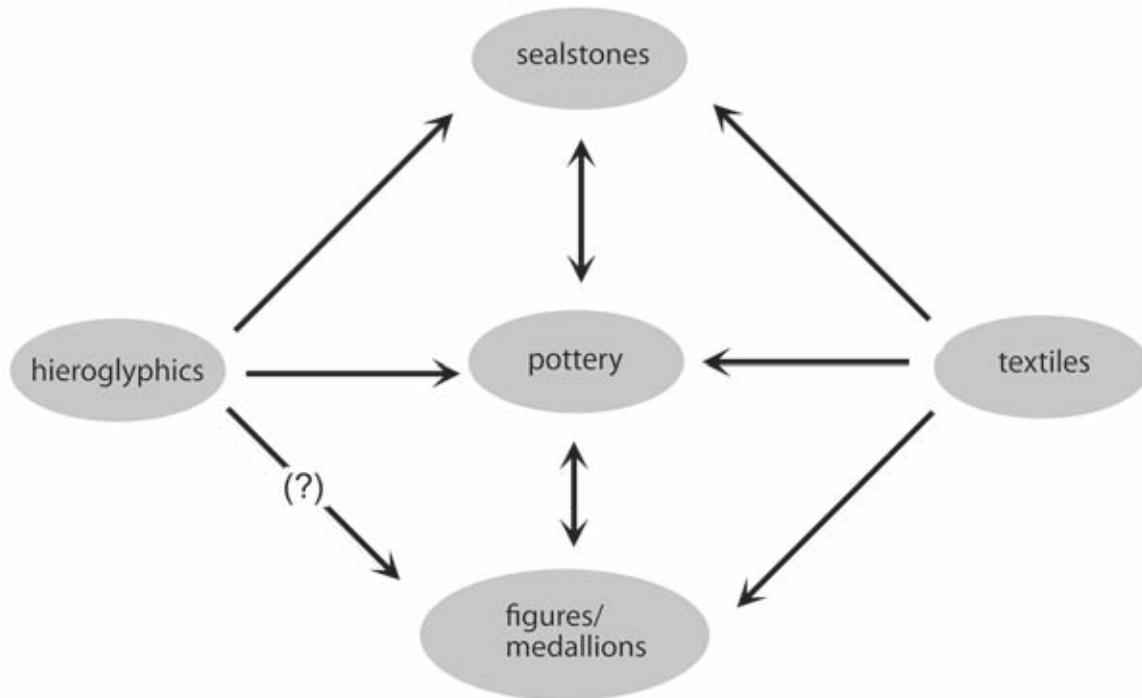


Fig. 31. Chart showing possible trajectories of symbolic transference.

ies. While we can perhaps begin to visualize political hierarchies and ritual or managerial roles becoming more sharply defined (and visually expressed) on the eve of the foundation of the palace, the question remains regarding the composition of the participating groups. Although it is outside the scope of this paper to begin to define specific social units at Petras in MM IB, compelling arguments have already been made for kinship-corporate groups in Protopalatial and Neopalatial contexts: essentially large clans, their clientele, and attached craft specialists.²¹⁹

The first palace at Petras is ceramically MM IIA in date, a critical watershed that includes the first monumental architectural constructions on the site and eventually (certainly by MM IIB) a fully functioning administrative archive. It is possible that the conditions of deposition involved the accumulation of feasting debris antedating the MM IIA rebuilding phase and closed in conjunction with the construction of the palace itself. If this is the case, the Lakkos provides an assemblage formed in stages immediately prior to the construction of the palace and is, therefore,

material evidence of social interaction in a public arena in a period leading up to or within the critical threshold of palace-state formation. This context of deposition could preserve a palimpsest of the social dynamics in the penultimate stages of palace formation, shedding light on material correlates of sociopolitical interaction.

As Clark and Blake observed for “transitional societies” in the Mazatan region of Chiapas,²²⁰ developing or emerging sociopolitical structure encourages radical innovation in material culture and symbolic attributes, such as pottery used as social markers in communal feasting. Novelties, whether derived from invention or emulation, are encouraged and controlled by competing aggrandizers in competitive displays. A similar ceramic diversity may be evident in late Predynastic Egypt and in Mesopotamia, in stages anticipating the regional integration we associate with the final stages of state formation in these regions.²²¹ Relational traces of past social interactions may be embedded in the archaeological context of the Lakkos assemblage; such interactions would have involved the use and

²¹⁹ See Driessen 2002, 12–3; Schoep 2002; 2006, 50, 57; cf. Knappett 1999a, 636.

²²⁰ Clark and Blake 1994, 28–30.

²²¹ Wenke 1997, 48.

consumption of vessels whose formal and decorative elements related messages of identity, distinction, and power.

The MM IB date suggested by the Lakkos pottery could then help us to understand not only a ceramic, chronological, or stratigraphic phase but also an important cultural process. The original context for the accumulation of the Lakkos material was likely a series of feasts, religious celebrations, and other public ceremonies conducted prior to the formation of a new palace-state in the Siteia region. Seeing through the mounds of debris that form the secondary deposit, we might be witnessing the end of an important final stage of political consolidation, negotiated or played out through public rituals performed somewhere at the site but in all likelihood in the space later occupied by the palace between the very end of the 20th century through the first quarter of the 19th century B.C.E. Linking the MM IB phase to a cultural process, or indeed even a series of events, has unusual archaeological implications; our ability to define the relative chronology of the “period” or “phase” may depend less on solving problems of stratigraphy, seriation, and ceramic regionalism than on isolating and defining comparable archaeological contexts that suggest similar patterns of consumption. Where such events are preserved archaeologically, such as the MM IB deposit on the south facade of the palace at Knossos,²²² the delineation of the components of the ceramic phase may be clear; as a period of occupation in diverse habitation contexts, however, the definition could prove to be frustrating. In the example mentioned above from Building 7 at Palaikastro, this could be the case.

Thus, our archaeological definition of ceramic forms and styles—the contextual association of vessel forms, functions, wares and decorative features, and manufacturing technologies—is ultimately dependent on a cultural context of consumption (the use context) and the myriad formation processes of deposition and post-depositional human activity at any given site or area of a site.²²³ This MM IB context at Petras represents a pivotal phase of dynamic social interaction in the region, a coalescence and centralization of different groups or factions enacting rituals that were reorganizing, restructuring, and perhaps redefining old-fashioned, essentially Prepalatial, relational

hierarchies. The end result of the process may have been the new sociopolitical configurations that were to characterize the emerging state and establish the ideological purview of a central palatial authority. The pottery of the Lakkos is characterized by an energetic diversity and proliferation of forms while looking back to late Prepalatial forms and ware groups. There is evidence for dynamic stylistic and technical innovation and experimentation, and within the ware groups, extremes of stylistic redundancy and novel decorative variability suggesting intense stylistic interaction: both vertical and horizontal stylistic diversity. The users of the pots were likely members of different social groups representing the competing interests of individuals, kinship units, villages, towns, or even regions linked by peak sanctuaries. These individuals eventually came together in public rituals centered in the area of what was to become the palace.

In the Petras Lakkos case, pots may indeed equal people. They were media for symbolic display, articulating complex competitive and complementary relationships on a threshold of culture change. The final stages of the process leading to the formation of palatial power involved the construction and reduplication of symbolic messages that were instrumental in ordering the past social configurations to form the basis of the palace society in MM IIA.

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Appendix: Slips and Paints

Laser Induced Breakdown Spectroscopy (LIBS) was used to analyze the slips and pigments of the Lakkos wares.²²⁴ The white paints on White-on-Dark, Spatter, and Polychrome Wares (see fig. 5a–c) demonstrated the presence of calcium, magnesium, aluminum, silica, titanium, and usually low readings of iron. The red paints on Polychrome Ware generally had the expected iron and magnesium components, while analysis of the black slips on White-on-Dark Ware and

²²² Knappett 2005, 147. I wonder if the original MM IB *kou-louras* at Knossos were not constructed or ultimately used for the ritual deposition of pottery; cf. MacGillivray 1998, 30.

²²³ Pertinent here might be a comparison of the Lakkos and the deposits on the east facade of Building 7 at Palaikastro, discussed above. See Knappett (2005, 147–54) on Knossos, Malia, and Pyrgos contexts; cf. Knappett 2006.

²²⁴ LIBS was conducted on Lakkos samples in July 2000 by D. Anglos (Foundation for Research and Technology-Hellas [FORTH], Herakleion) and S. Ferrence (Temple University), under the supervision of S. Chlouveraki, chief conservator (INSTAP-SCEC) at the conservation laboratory of the INSTAP Study Center for East Crete.

Polychrome Ware showed the presence of aluminum and iron with trace evidence of magnesium, silica, and titanium. Since five of the White-on-Dark Ware examples are of an identifiably local fabric, Petras buff,²²⁵ it is suggested that the white paint with consistent calcium and aluminum levels should be local to the area. These LIBS results seem to correspond to published Proton-Induced X-ray Emission Spectrometry (PIXE) analyses, which have demonstrated conclusively that calcium-rich white paints are present in Mochlos and Palaikastro Protopalatial samples but not in the paints from Kommos, which showed a high concentration of magnesium and low levels of calcium.²²⁶ Although recent work has only begun to demonstrate the potential use of LIBS in mapping relative quantities of elements,²²⁷ the Lakkos results could tentatively support the production of a calcium-rich white paint in eastern Crete. Of the 17 sherds examined using the LIBS technique—six Polychrome Ware and 11 White-on-Dark Ware—only two samples of the white paint diverged significantly from the usual pattern of constituent elements. The exceptions are unequivocally EM III White-on-Dark Ware examples with the distinctive iron-rich, pinkish-white paint and Mirabello fabric (containing the granodiorite inclusions that are characteristic of the region between Gournia and Kalo Khorio).²²⁸ Both samples showed high levels of magnesium, approximating the PIXE results on wares from Gournia.²²⁹

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²²⁵ Day 1995, 153–54; Tsipopoulou 1995, 31.

²²⁶ Swann et al. 2000; Ferrence et al. 2002. See Day et al. (2006, 54–6) on talc pigments in the Mesara.

²²⁷ Ferrence et al. 2000.

²²⁸ Day 1991, 1995.

²²⁹ Swann et al. 2000; Ferrence et al. 2002.

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