CHRONOLOGICAL OBSERVATIONS AT THE DAWN OF THE IRON AGE IN ASHKELON

By Daniel M. Master, Lawrence E. Stager, and Assaf Yasur-Landau

Abstract

The Leon Levy Expedition to Ashkelon, Israel has uncovered a stratified sequence from the late thirteenth–early twelfth century B.C. which provides evidence for the transformation of Ashkelon from an Egyptian garrison to a Philistine seaport. The earliest Philistine settlement appears as a completely new construction accompanied by distinct ceramic forms with no predecessors in earlier phases. All of the available evidence from Ashkelon, including ceramic forms with close parallels to the nearby site of Lachish, Mycenaean IIIC pottery, and imported Egyptian artifacts, argue that the earliest Philistine settlement occurred in the first half of the twelfth century B.C. This article presents a synopsis of the ceramic and stratigraphic sequence with the hope of contributing to the history of the early Iron Age in the Southern Levant.

Introduction

Since 1985, the Leon Levy Expedition has been excavating the site of Ashkelon, Israel with an eye toward understanding some of the important transformations at the Iron Age. Because of the complex nature of the site, the earliest Iron Age material was exposed only in a small step trench during the early seasons of excavation (Stager 1995). The wider exposures uncovered between 2000–2010 continue to support the stratigraphic and ceramic sequence excavated in the original step trench and supply additional information which allows us to readdress questions of the Late Bronze/Iron Age transformation of Ashkelon and its relation to similar changes in Ashdod (Dothan and Porath 1993; Ben-Shlomo 2005) and Tel Miqne-Ekron (Dothan and Zukerman 2004). The most striking change at the onset of the Iron Age in Ashkelon is the sudden appearance of new cultural patterns expressed in architecture, ceramics, diet, and crafts, particularly weaving. In much recent literature, these new cultural patterns have been connected to migrations from the Mycenaean world by the Sea Peoples and, in South Canaan especially, the Philistines.[1] As befits such a widely held historical reconstruction, challenges have been raised from several sides. Sherratt (1992, 1998; followed by Bauer 1998) argued that, rather than a migration, cultural diffusion and elite emulation connected with the early post-Bronze Age trade were responsible for the changes in the Levant. The breadth of new cultural traits in Philistia, however, has left this critique with little traction among scholars with an awareness of southern Levantine archaeology.

Still, there remain disagreements on the details. Some have challenged the idea of "Aegean" migration (Killebrew 1998a: 393–397, 401–402; 2000), finding the origin of these newcomers in "Aegeanized" Cyprus and/or Cilicia. Some have challenged the idea that all of the people in the new Iron Age constructions were migrants. They are variously considered mostly Aegean (e.g. Stager 1995; Master 2005), Canaanite (Drews 2000), a mixture of non-Aegean peoples from the eastern Mediterranean (Sherratt 1998), or all of the above (Sweeny and Yasur-Landau 1999). Similarly, the number of immigrants ranges from tens of thousands (Stager 1995) to a humble movements of "few thousands" (Finkelstein 1996, 1998). The date is also a matter of discussion. While Dothan (1989), A. Mazar (1985), and Stager (1985, 1995) support a date during the reign of Ramses III in connection to his campaigns against the "Sea Peoples," Finkelstein (1995, 1998) and Ussishkin (1998) argue Philistine settlement began only after Ramses VI and the end of Egyptian control in southern Canaan.

Despite the many nuanced arguments, the data from the relevant excavations of Philistia, including architectural sequences and pottery assemblages, have only recently become available with the final publication of Ashdod (Dothan and Porath 1993; Dothan and Ben-Shlomo 2006),

[1] See Dothan 1982, 1998b; Mazar 1985; Bietak 1993; Stager 1995, 1998, 2008; Bunimovitz and Faust 2001; Finkelstein 1995, 1998; Aja 2010; Master 2005; Yasur-Landau 2010.

Ägypten und Levante/Egypt and the Levant 21, 2011, 261–280

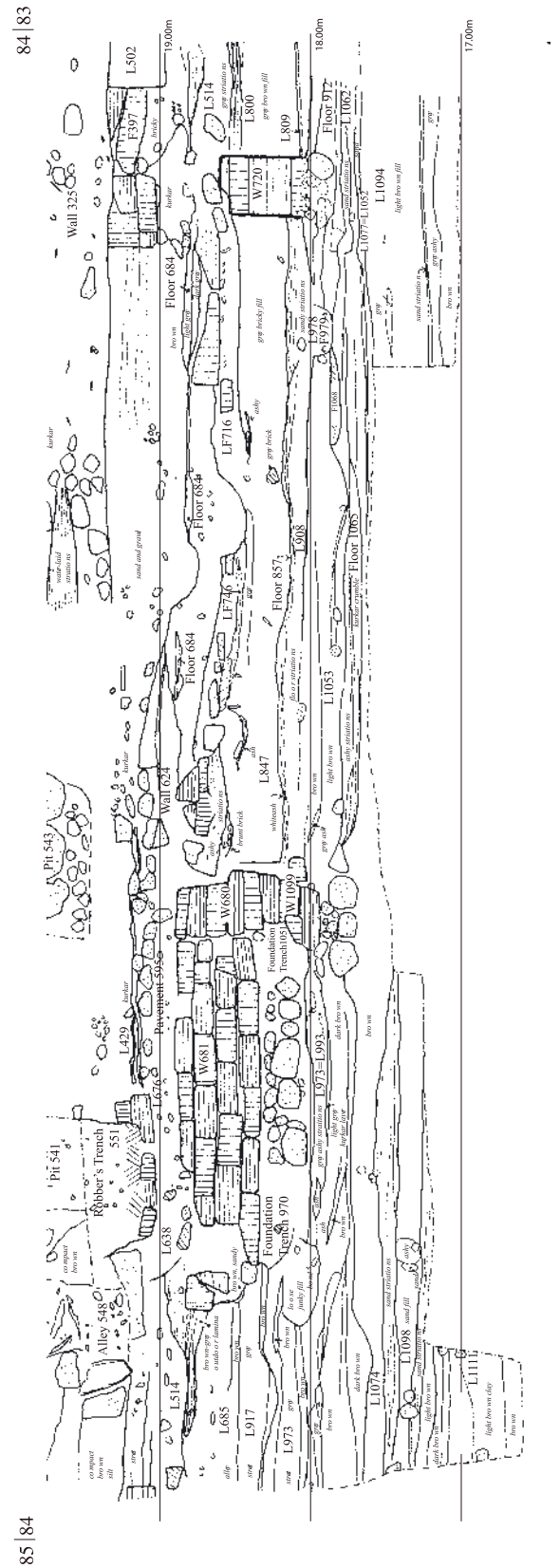

Fig.1 South Section of Grid 38.Square 84

the preliminary volumes and the first volume of final publications from Tel Miqne-Ekron (cf. Bierling 1998; Dothan 1998; Gitin, Meehl, and Dothan 2006), and the first volume from Ashkelon (Stager, Schloen, and Master 2008). The first article dedicated to the systematic study of the "Mycenaean IIIC"[2] in Philistia appeared only in 2004 (Dothan and Zukerman 2004). The results from the excavations at Ashkelon will not end the discussion, but the critical sequence from this coastal site tips the scale in favor of a migration of new immigrants from the West to south Canaan around 1170 B.C.

Stratigraphic Context (Fig. 1)

Because of the richness of Ashkelon and its almost continuous occupation, the architectural phases at the site are a tight web of stratigraphic units. In Grid 38, located on the northern side of Ashkelon's central mound, more than 24 distinct superimposed architectural units representing twenty–seven hundred years of history are packed into eight vertical meters of accumulated sediments. Such stratigraphic density, however, rewards the careful excavator with a complete sequence of occupation at the site. The focus of this discussion of the stratigraphy is Grid 38, Architectural Phase 20, the earliest Iron Age phase at Ashkelon. In order to understand properly the issues related to this phase, the immediately preceding and succeeding phases provide important stratigraphic and chronological constraints.

At the southern border of the excavation area, a drawn section highlights the early Iron Age sequence. Light brown fills alternate with sandy fill layers to form an accumulation associated with Grid 38, Phase 21. These layers (L) are visible in the south section as L1098 and L1111 on the east and L1094 on the west. In the east, L1098 and L1111 contained typical late thirteenth/early twelfth century Canaanite and Egyptian forms (Martin 2010).[3]

In the section, the darker brown fill layers (L1074, L1077, L1052) are constructional deposits for a new architectural plan, Grid 38, Phase 20. The first primary deposits visible in the section are contemporary with the construction of Wall 1099, a north-south mudbrick wall with stone foundation. This wall divided interior and exterior spaces, L973/L993 on the exterior and Floor 1065 and L1064 (striated occupational buildup) on the interior. The Phase 20 fills (L1074, L1077, L1052) have the consistency of outdoor deposits: more pottery, larger fragments of bone, more ash and more evidence of wind and water deposits. These fills contain the earliest appearance of Mycenaean IIIC pottery alongside Canaanite and Egyptian forms. In these layers, the Mycenaean IIIC pottery makes up about eight percent of the assemblage and is likely mixed with substantial residual material. In the Phase 20 floors (Floor 1065, L1064) which seal the constructional fills, Aegean-style pottery makes up 14–18% of the ceramic corpus.[4]

---

[2] As for terminology, Yasur-Landau prefers the term *Late Helladic IIIC-style* (2010: 242) while Stager has used the term *Sea Peoples Monochrome* for the same assemblage (1995). Within the wider Mediterranean, the more general reference is to the *Mycenaean IIIC* sequence (Dothan and Zukerman 2004) though the term *Mycenaean* could be taken to imply Aegean mainland production which is not the case at Ashkelon. A different problem is embedded in the ethnically-laden terms *Sea Peoples Monochrome* (Stager 1995), *Philistine Monochrome*, or *Philistine 1* (Dothan, Gitin, and Zukerman 2006). Mountjoy, whose work is the definitive statement on these forms, uses *Mycenaean* to describe this type of pottery in general, but *Late Helladic IIIC* to describe this particular assemblage, following the terminology of the Greek mainland (Mountjoy 1986, 1999). In the end, several competing terms denote a single assemblage. This article will use *Mycenaean IIIC* entirely for the sake of convention (Dothan and Zukerman 2004; Furumark 1941).

[3] In L1094, one locally made Mycenaean IIIC horizontal handle fragment was found among 221 other diagnostic fragments. This small handle comes from a pottery bucket at the very top of this layer and likely represents an intrusion from the layer immediately above.

[4] Recently, several have expressed substantial reservations about the archaeological value of studies based on sherds rather than whole vessels (e.g. Finkelstein 1998: 211). The Ashkelon assemblage is open to such criticism as our Iron I sample of 43,117 diagnostic fragments has a completeness index of 0.0649 (Schiffer 1987: 282–283, but calculated with rim fraction). Such an approach, however, has led some to discard the majority of sherds from important sites and to proceed on the basis of a very few whole vessels. This approach is entirely unnecessary if one has the sophistication to deal with the issues raised by collections of fragmentary, non-restorable rim sherds. More than this, the use of all rim sherds has the advantage of increasing the statistical basis of calculations so dramatically that new patterns beside mere chronological range can be observed.
At Ashkelon, Chalcolithic, Early Bronze, Middle Bronze, and Late Bronze I sherds appear in the Iron I assemblage. Within the assemblage, these fragments make up from

The associated outdoor surfaces (L973/L993) have a slightly higher percentage of Aegean-Style pottery (24–26%), likely related to the different function of these spaces. Neither the interior nor the exterior spaces connected with Wall 1099 contained any Philistine Bichrome pottery.

Fig. 1 shows that the builders of Grid 38, Architectural Phase 19, cut into Wall 1099 in order to lay the stone foundation for an east-west mudbrick wall with stone foundation (Wall 1051, 681). At the same time, at roughly the same orientation, they used the remaining bricks of Wall 1099 as a foundation for Wall 680, another north-south mudbrick wall. As the section shows, these walls were built immediately above the outdoor deposits (L973=L993) of the earlier phase. On the floors of this new phase (Phase 19), Philistine Bichrome pottery appeared for the first time. As might be expected, its appearance was gradual. Bichrome pottery on the first floors of this building phase often amounts to less than two percent of the assemblage, but the collapse of the room bounded by Wall 680 and Wall 681 contained a complete Bichrome stirrup jar alongside other vessels painted only with red bands (STAGER, SCHLOEN, and MASTER 2008: fig. 15.23.5–8) (Fig. 2).

In the north, a similar stratigraphic sequence emerged. In this area of the excavation, Phase 21 was represented by silos which were sealed by the earliest floor of Architectural Phase 20b. By superimposing the plan of Architectural Phase 20a and Architectural Phase 19, the superpositional relationship between these two distinct buildings is visible. While the large E-W wall in both phases is somewhat similar in orientation (as the later wall likely used some portion of the ruined earlier wall as foundation), the later north-south walls, later floors, and later installations were built over the already ruined earlier walls in such a way that the stratigraphic superposition is clear. In addition, the floors from Phase 19 sealed the deposits of Phase 20. The Phase 19 floor contained the earliest Bichrome pottery in this sequence, comprising about one percent of the assemblage on the floor.

Two rooms in Phase 20 were particularly well preserved and their remains provide the clearest sequence of occupation in this area. Room 1021 was excavated on two occasions, the northern half in 1989–90 as part of a step trench at the edge of Grid 38 and the southern half in 2004. In both cases, the conclusions were identical. A new structure was built above fill layers containing Egyptian and Canaanite pottery, and the forty centimeter buildup of floors and installations representing two subphases (20b, 20a) contained Aegean-style forms. The distinctively Aegean-style forms made

0.4–0.5% of the early Iron I corpus. The floors and living surfaces tend to have a slightly smaller amount of this material because of the nature of their deposition. Still, these distantly residual sherds are hardly a rationale for disregarding the other results unless a ceramicist has some difficulty distinguishing Chalcolithic or Early Bronze Age 1 sherds from Iron Age 1 sherds – which can hardly be imagined (*contra* FINKELSTEIN 1998: 211).

Slightly more difficult issues are raised by fragments that are known to have been used in the immediately preceding LBII period and appear in the Iron I deposits. Mycenaean IIIA/B and Cypriot White Slip II pottery make up just under two percent of the early Iron I assemblage. This percentage is not substantially different from the percentage found by Martin in his study of the final Late Bronze II phase at Ashkelon (MARTIN 2010). In this case, it is not possible to disentangle pottery which is residual as a result of post-depositional processes and Late Bronze Age forms which are "residual" as a result of cultural processes, particularly since both are well attested. For the use of these forms as Iron I heirlooms at Megiddo, see LEONARD and CLINE 1998. Despite the ambiguity, however, these easily recognizable sherds can be isolated when dealing with issues of micro-chronology.

The most complex issues are raised by forms whose full chronological parameters are uncertain and whose acme immediately precedes the stratum in question. In this case, however, the large sample size and the exceptionally dense stratigraphy at Ashkelon provide excellent raw material for seriation curves which can provide statistical parameters for the sherds in question.

At Ashkelon, the most striking ceramic change is the *de novo* appearance of Mycenaean IIIC pottery. In the earliest deposits, the Mycenaean IIIC pottery makes up less than ten percent of the assemblage. A broader examination of the statistical trajectory of these forms in the assemblage highlights the possibility that this curve is partly a product of the increasing depositional momentum of these forms. From the standpoint of contemporary *usage*, this curve is likely much flatter with a substantially higher percentage of Philistine pottery in use from the earliest periods. The upper limits of this use can be estimated by examining the higher limits at which the percentage of Mycenaean IIIC pottery stabilizes on the floors and in the occupational debris of the succeeding architectural phase (up to thirty percent by Phase 19, thirty five percent by Phase 18).

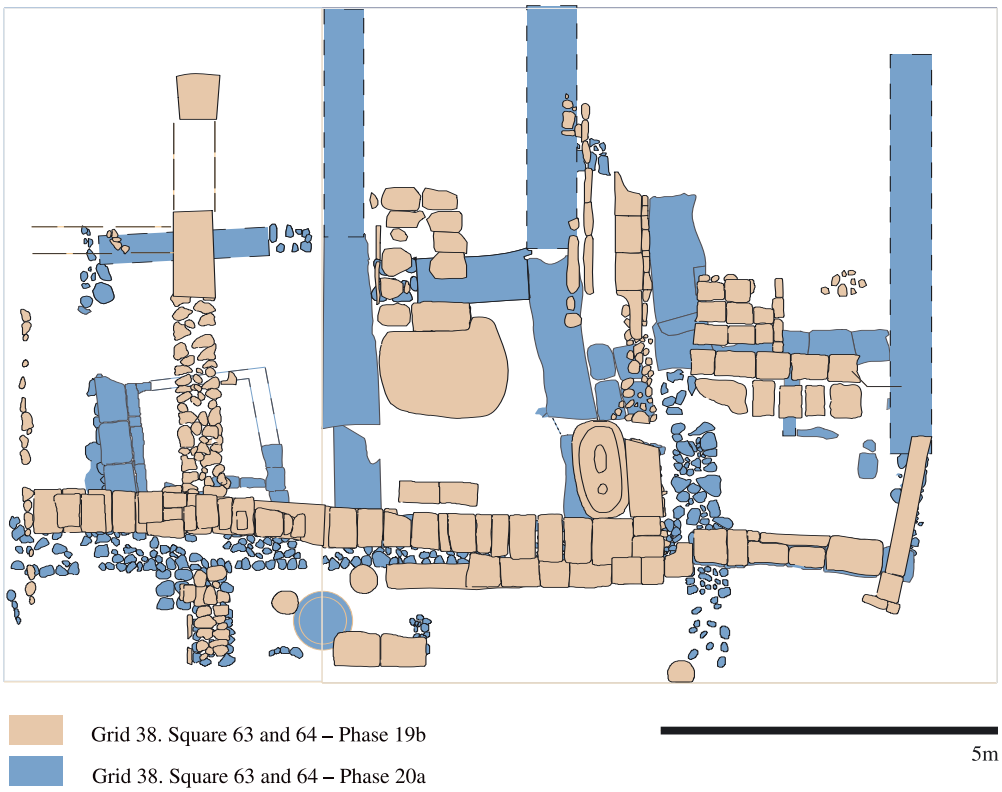

Fig. 2 Grid 38. Phase 19b plan superimposed on Grid 38. Phase 20a plan

up 11–12% of the assemblage in this room. In addition, the floors of Phase 20a contained multiple examples of the cylindrical loomweights typical of early Philistine occupation, 52 loomweights on one floor, 71 on another. The preliminary animal bone analysis of the finds from this room also indicate both pig and dog consumption, new additions to the culinary repertoire (Hesse, personal communication).

To the west, Room 859 has a similar sequence. A Phase 21 silo was cut into the Late Bronze Age Canaanite ruins (Phase 22). Unique among the silos of Phase 21, however, this silo was not filled in until the construction of Phase 20.

This silo was sealed by the earliest occupational buildup of Architectural Phase 20b. This floor buildup also contained locally made Mycenaean IIIC pottery, in this case composing about 14–15 percent of the assemblage. The laminations of the floor which covered this silo also contained a scarab of Ramses III, providing an important chronological marker for the appearance of locally made Mycenaean IIIC in this room, and likely for the site as a whole.

Architectural Summary[5]

Taking a step back, these stratigraphic details contribute to the broader picture. In Phase 21 (Fig. 3), the dominant architectural feature is Wall 1080, an east-west mudbrick wall which was excavated over an extent of 15m with a symmetrical buttress on the western side. This preserved wall was three courses high and seems to have dimensions that match Egyptian foundations elsewhere in the region. The lack of mudbrick detritus from the putative toppled wall leads us to believe that the mudbrick superstructure was never completed. The impression is of a short-lived, incomplete phase characterized by Egyptian cultural connections (for the Egyptian and Egyptianizing ceramics, see Martin 2010).

[5] This stratigraphic summary is an update of a more elaborate description in Stager, Schloen, and Master 2008.

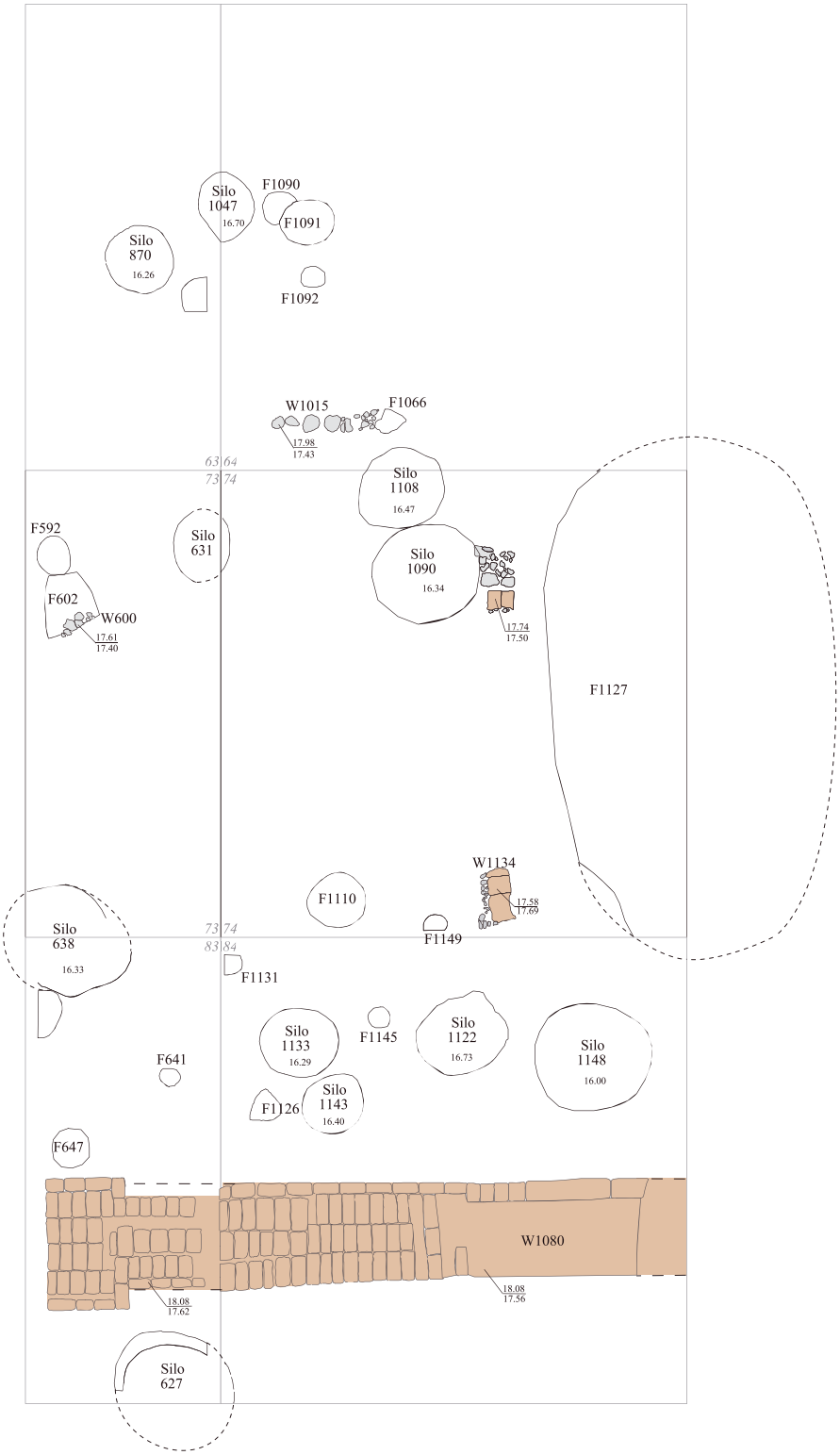

Fig. 3 Phase 21

Fig. 4 Phase 20b

The resulting chaos of an open construction site was encountered by the builders of Phase 20 (Figs. 4, 5). As the Phase 20 remains were nestled into the uneven ruins of Phase 21, the expanse of Phase 20 was also uneven, with higher open areas in the center of the excavation area and lower floors in surrounding buildings. But this accommodation to local conditions should not diminish the conclusion of a well-organized housing scheme imposed on the urban landscape in the heart of the city.

Phase 20 has two subphases which are most clearly seen along the northern and eastern borders of the excavation area. In the north, the earliest subphase has rooms arranged around a large central room with a large pillar base, perhaps one of two in this large roofed space. This central room was marked by a plastered floor covered by a micro-laminated buildup. The large room was then subdivided into several rooms in the succeeding Phase 20a. There is not enough exposure of this transition to describe it as an intensification of settlement, but there were probably changes in room function in the northern area, which led to the subdivision of the spaces.

Through much of the excavated area, Phase 19 follows the same general division of space as Phase 20, though each individual structure was significantly modified (see AJA 2010 for detail).

In summary, the sequence is similar throughout the excavation trench. Three distinct architectural phases are in clear super-positional relationship. Phase 20 represents a complete break with the lay-

Fig. 5 Phase 20a

out and plan of Phase 21, while Phase 19 shows some awareness of wall lines of Phase 20, often founding the new walls on the ruined foundations of the earlier material. The ceramic sequence corresponds to the architectural sequence. Phase 21 contains no Mycenaean IIIC pottery and much Egyptian and Egyptian-style pottery (Martin 2010); Phase 20 contains Mycenaean IIIC pottery but no Philistine Bichrome, and Phase 19 contains the first rare pieces of Philistine Bichrome alongside Mycenaean IIIC pottery.

Relative Chronology: Ceramics

The typology of the Phase 20 material from Ashkelon has been divided into two groupings, Canaanite forms and Mycenaean IIIC forms. These "ethnic" categorizations are not a simplistic equation of pottery styles and identity categories; rather they refer to conventional and well-described stylistic differences between pottery with precursors in the Late Bronze Age Aegean world (Mycenaean IIIC) and pottery with precursors manufactured in Late Bronze Age Canaan (Mazow 2005: 111–118). The joining of these two traditions, particularly the onset of locally made Mycenaean IIIC forms in the Levant is accompanied by new potting traditions (Killebrew 1998b; Master, in press), a deep-change (Yasur-Landau 2002; 2010) which points to a more fundamental cultural transformation. The aim of the presentation of pottery is not to create an

exhaustive discussion of all of the types of pottery and their variants, a task reserved for the final publication, but rather to illustrate the chronological significance of the most common types.

"Canaanite" Ceramics at Ashkelon

Cooking pots (Fig. 6: 20–23)

The cooking pot material in Phase 20 consists of sherds only, without complete profiles. Rim shapes vary in minute details, yet it is likely that, like Lachish levels VI and VII, they comprise two large groups: pots with square or folded rims (YANNAI 2004: 1047, 1053 CP-5) and pots with short, triangular rims (*ibid.* CP-2). In addition, few pots display an adze rim. The same types can be seen in Tel Batash Stratum VI (PANITZ-COHEN 2006: pl. 56:1–11) and in the twelfth century assemblage of Qubur el-Waleyide (LEHMANN *et al.* 2009: fig. 8:1–3).[6]

Canaanite Krater (Fig. 6: 14–19)

These kraters are characterized by carinated or rounded bodies and two vertical handles. Surface treatment varies greatly from plain to burnished and painted. Rim forms show much variety and include six rim types, reflecting much continuity in the Late Bronze Age tradition:

1. Erect, simple or rectangular rim; Lachish Level VI (YANNAI 2004: fig. 19.51:7), Qubur el-Waleyide (LEHMANN *et al.* 2009: fig. 7:1, 2)
2. L-shaped rim; Lachish Level VI (USSISHKIN 2004: fig. 20.34:12), Tel Batash Stratum VI (PANITZ-COHEN 2006: pl. 55:14)
3. T-shaped rim; Lachish Level VI (YANNAI 2004: fig. 19.47:4), Tell Batash Stratum VII (PANITZ-COHEN 2006: pl. 1:19)
4. Club-shaped rim, with inner gutter; Lachish Level VI (YANNAI 2004: fig. 19.40:10, 19.47:5; USSISHKIN 2004: fig. 20.33:15–18), Tel Batash Stratum VI (PANITZ-COHEN 2006: pls. 55:13; 59:3), Qubur el-Waleyide (LEHMANN *et al.* 2009: fig. 7:3, 4)
5. Out-turned rim with thickened inner protrusion; rim slightly folded to the inside. The shape of the vessel, the surface treatment and the decoration bear resemblance to a krater from Level P-1 (pre-VI) from Lachish (CLAMER 2004a: fig. 20.14:1), Tel Batash Stratum VIIA (PANITZ-COHEN 2006: pl. 1:20)
6. Club shaped rim without inner gutter; Lachish Level VI (USSISHKIN 2004: fig. 20.34:14).

Hemispherical bowl (Fig. 6.1–3)

These have a hemispherical shape, curved sides, sharp or rounded simple rim, and a concave disc or ring base. These bowls may be a continuation of the hemispherical bowls of the late thirteenth and early twelfth century "Canaanite" pottery tradition, with many minute variants in the shape of the base, rim, and aperture of the rim. The same form, however, appears in the Mycenaean repertoire, and some examples from Ashkelon are painted after the Mycenaean tradition (Fig. 6.2). Parallels to this type come from Lachish Levels VIIa (YANNAI 2004: fig. 19.23:9 type B-3b; 19.34:3; 19.36: 4, 5 type B-5b) and VI (YANNAI: fig. 19.46:6–8 type 29b; CLAMER 2004b: fig. 21.2:8–10 class I.C), Tel Batash (PANITZ-COHEN 2006: pls. 55:1, 2; 58:4–6), Qubur el-Waleyide (LEHMANN *et al.* 2009: fig.7:5, 6).[7]

Shallow bowls
(Fig. 6.4–7)

This group includes bowls with shallow bodies and walls which do not curve or carinate. Numerous parallels from Lachish Level VI (CLAMER

[6] In the Philistines sites, further examples come from Ashdod Strata XV, XIV and XIIIb (XV: DOTHAN AND FREEDMAN 1967: fig. 19: 4–5, XIV: fig. 22: 9, 11; DOTHAN and PORATH 1993: fig. 12: 10, XIIIb; fig. 17: 6) and from Ekron Strata VIII and VI (VIII: DOTHAN, GITIN and ZUKERMAN 2006: fig. 3.2.12, 13; VIIb: DOTHAN 1998: pl. 1: 14). Square folded rims appear in Ashdod Stratum XIII (BEN-SHLOMO 2005: fig. 3.5: 22, 24, 25) and in Ekron Stratum VIIa (DOTHAN, GITIN and ZUKERMAN 2006: fig. 3.4:6; DOTHAN 1998: pl. 3: 18). As at Ekron, Canaanite cooking pots are made of a different clay recipe, perhaps indicating a distinct change in potting traditions despite similarities in form (MASTER, in press).

[7] In addition to the majority of these bowls, made in a beige, undecorated fabric, the Ashkelon Phase 20 assemblage contains a smaller number of shallow and hemispherical bowls made in the reddish fabric typical of the Monochrome pottery, decorated with bands and sometimes even with a spiral on the inner base. Similar vessels exist in Miqne Stratum VIb (DOTHAN 1998: pl. 5: 8), and Ashdod Stratum XIIIb (DOTHAN and PORATH 1993: fig. 14: 1–7; 16: 4). Hypothetically, an Aegean or Cypriot prototype to this form may have existed side by side with the Canaanite.

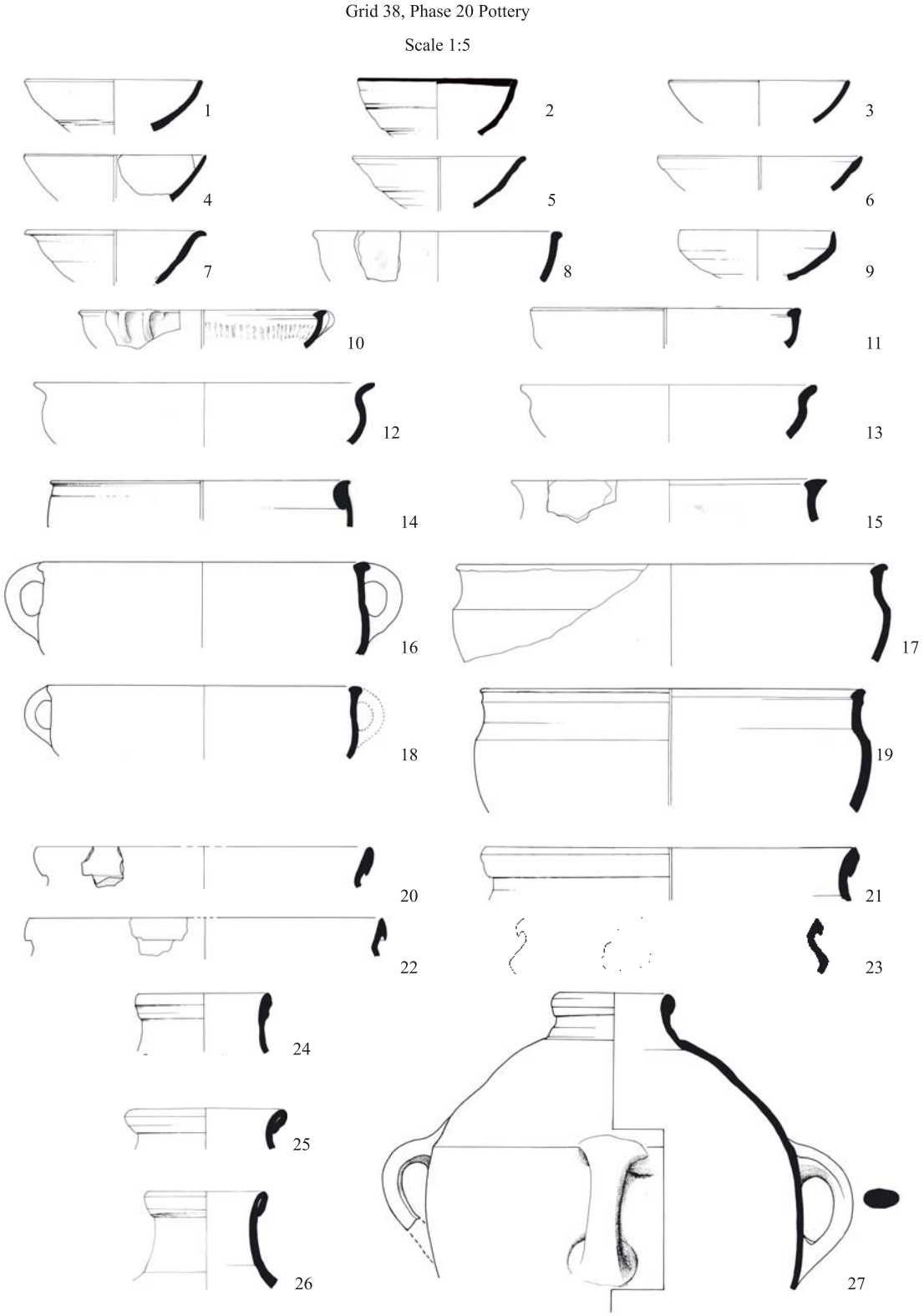

Fig. 6 Canaanite Ceramics from Phase 20

2004b: 1168–1169 class I.A. flared bowls, e.g. fig. 21.1: 1–17, 24–26 Level VI) of the thirteenth and early twelfth century indicate that these bowls feature disc, ring or rounded base, and a plethora of rims: simple, slightly thickened, everted or splayed. Additional parallels come from Stratum VIA at Tel Batash (Panitz-Cohen 2006: pl. 55:4–7) and Qubur el-Waleyide (Lehmann *et al.* 2009: fig.7:5, 6).

Shallow bowl with upturned rim
(Fig. 6.9)

The best parallels for this form are found at Lachish VIIB–VIIA (Yannai 2004: fig. 19.39:1 type B-23) VIIA (Yannai 2004: fig. 19.23:11; 19.30:6).

Open Bowl with hammer or inturned rim
(Fig. 6.10–11)

This bowl is very distinct in its prominent inturned rim and unique bar handles. It is often decorated in red bands, sometimes with vertical lines. This form seems to be chronologically distinctive to Lachish VI (Yannai 2004: 1052 group B-28 fig. 19.42:1–9; Ussishkin 2004: fig. 20.35:7).

Twelfth-century Bowl with Cyma profile
(Fig. 6.12–13)

These bowls have a shallow body, rounded carination in the upper body and a slightly overturned rim (cyma). These bowls are a feature of the thirteenth century and continue into the twelfth century assemblages. Such bowls are found within Level VI in Lachish (Clamer 2004b: 1293 types I.D.a, I.D.b, I.D.C. e.g. fig. 21.11: 14–21 Level VI).

Storage jars
(Fig. 6.24–27)

The storage jar rim repertoire finds good parallels in Lachish Levels VII and VI. The folded and rounded rims find parallels at Lachish VIIA (Yannai 2004: fig. 19.35: 6) VI (Yannai 2004: fig. 19.45:1, 2). Those with two ridges may be seen at Lachish VI (Yannai 2004: fig. 19.40:4). Forty storage jars from Phase 20 have diverse petrographic profiles spanning the Levantine coast and indicating the resumption of trade in the 12th century (Master 2009).

The analysis of the Canaanite-style pottery found alongside the Mycenaean IIIC pottery shows parallels to the traditions of Lachish Levels VII and VI, Tel Batash Stratum VI, and the twelfth century Egyptian Garrison at Qubur el-Waleyide. The presence of some residual material may explain the fact that some of the material finds its best parallels in Lachish Stratum VII. While we expect residual forms to occur, the assemblage is still, in its entirety, closely paralleled to Lachish Strata VII and VI. Several forms postdate Lachish VII (*terminus post quem*), but no ceramic material postdates Lachish Stratum VI. Rather, its latest forms are identical to those of Lachish Stratum VI. The latest pottery forms of Lachish Stratum IV closely parallel those of the "Canaanite" pottery from Ashkelon 20, the earliest "Philistine" phase.

Legend to Fig. 6 Canaanite Ceramics from Phase 20

1) Hemispherical Bowl; A26/04 38.84 L973 B339 (10031); 2) Hemispherical Bowl; A26/04 38.63 LF862 B88 (8577); 3) Hemispherical Bowl; A26/04 38.84 L973 B317 (10026); 4) Shallow Bowl; A26/04 38.63 L871 B102 (8507); 5) Shallow Bowl; A26/04 38.84 L973 B41 (8298); 6) Shallow Bowl; A26/04 38.83 F617 B217 (10018); 7) Shallow Bowl; A26/04 38.84 F1099 B388 (10044); 8) Shallow Bowl; A41/89 38.64 LF198 B185 (12); 9) Shallow Bowl with Upturned Rim; A81/00 38.74 F987 B235 (9988); 10) Open Bowl with Hammer/Inturned Rim; A26/04 38.84 L973 B316 (8547); 11) Open Bowl with Hammer/Inturned Rim; A26/04 38.74 L1067 B193 (9975); 12) Bowl with Cyma Profile; A40/90 38.64 LF210 B112 (4); 13) Bowl with Cyma Profile; AA40/90 38.64 F216 B79 (3); 14) Canaanite Krater; A81/00 38.63 L844 B39 (3684); 15) Canaanite Krater; A41/89 1819 38.64 L190 B164 (1); 16) Canaanite Krater; A3/88 38.64 F165 B246 (1); 17) Canaanite Krater; A3/88 38.64 F165 B656 (4); 18) Canaanite Krater; A3/88 38.64 F165 B676 (1); 19 Canaanite Krater; A28/04 38.63.48 L861 B69 (8511); 20) Cooking Pot, Folded Rim; A40/90 38.64 F164 B75 (8); 21) Cooking Pot, Folded Rim; A26/04 38.74 L1088 B47 (10004); 22) Cooking Pot, Flanged Rim; A3/88 38.64 L132 B569 (1); 23) Cooking Pot, Flanged Rim; A40/90 38.64 F164 B114 (9); 24) Storage Jar, A41/89 38.63. L49 B14 (1); 25) Storage Jar; A26/04 38.84 L973 B363 (10019); 26) Storage Jar; A26/04 38.84 L973 B278 (10055); 27) Storage Jar; A26/04 38.74 F1091 B365 (8501)

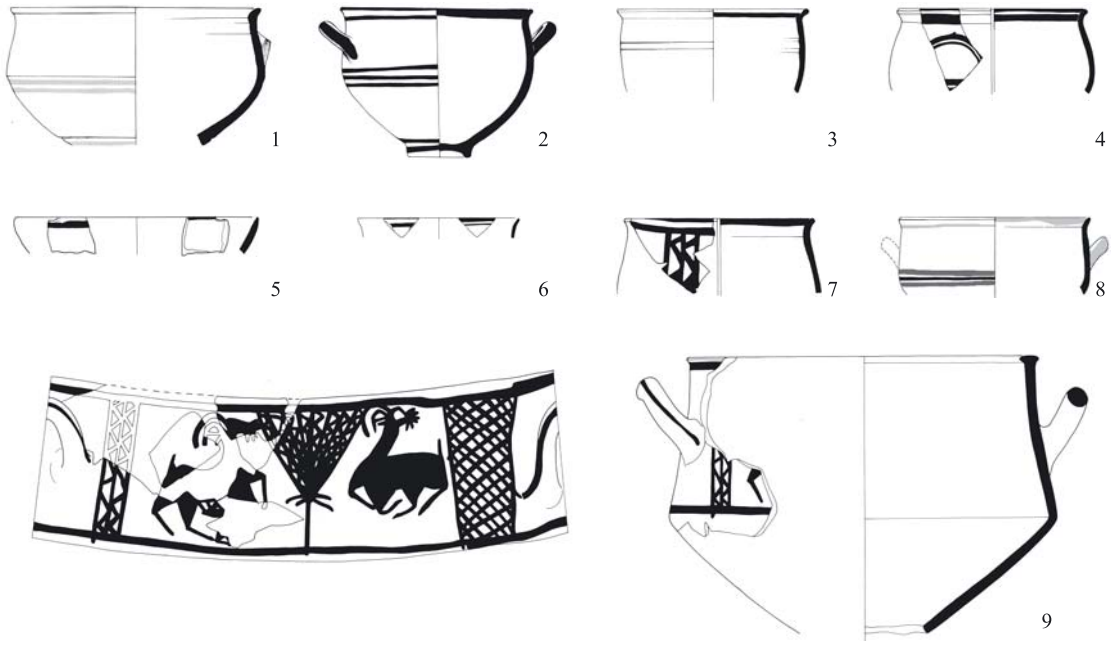

Fig. 7 Ceramics from Phase 20b (scale 1:5)
1) Bell-Shaped Bowl; A26/04 38.63 L861 B57 (8455); 2) Bell-Shaped Bowl; A26/04 38.63 LF862 B88 (8576); 3) Bell-Shaped Bowl; A26/04 38.63 L862 B88 (8578); 4) Bell-Shaped Bowl; Shallow Bowl; A26/04 38.63 L871 B118 (8491); 5) Hemispherical Bowl; A41/89 38.64.22 L149 B201 (4); 6) Shallow Angular Bowl (?); A41/89 38.64.11 L149 B215 (7); 7) Bell-Shaped Bowl; A26/04 38.63 LF862 B94 (8487); 8) Bell-Shaped Bowl; A26/04 38.74 L1085 B156 (8481); 9) Canaanite-style Krater with Aegean-style handles; A41/98 38.64 L149 B B191 (1)

Mycenaean IIIC Ceramics at Ashkelon[8]

Bell shaped bowls[9] (Fig. 7.2)

Bell shaped bowls (FS 284, 285) are the most common decorated fineware in Ashkelon, as well as in the Mycenaean IIIC pottery in Ashdod and Ekron (Dothan and Zukerman 2004: figs. 8, 9).

Shallow Angular Bowls (Fig. 8.1)

Shallow angular bowls (FS 295) are the second most common fineware shape in Ashkelon Phase 20, as it is in Ashdod and Ekron (Dothan and Zukerman 2004: fig. 5:10–11; fig. 6:1–5). Decoration is in dark brown or black paint, sometimes on a light or white slip.

[8] See additional examples in Stager, Schloen, and Master 2008: Figure 15.11, 15.23 and in Master and Aja, in press. While the dating of Mycenaean IIIC ceramics is full of uncertainty (Yasur-Landau 2010: 186–189), we do note that Weninger and Jung (2009) have dated the transition between LH IIIC Early and LH IIIC Developed much as we would propose here (transition at 1160–1150). Mountjoy has argued that the pottery in Philistia spans this same divide which she calls Mycenaean IIIC Early 2–IIIC Middle (2010: 1). That is, the earliest pottery is Mycenaean IIIC Early 2 (around 1160 according to Weninger and Jung) while the later monochrome pottery is IIIC Middle (from 1150 onwards). Bichrome pottery would then begin somewhere around 1130 or slightly later.

[9] A comparison of the presence of Aegean and local forms in the main categories of vessels indicates that we are looking at two more or less *complete* assemblages, one Aegean and one local, each with good connections to the first half of the twelfth century. Each of these assemblages is equipped with the types of vessels necessary to conduct most daily domestic activities. However, in Ashkelon, as in Tel Miqne/Ekron and Ashdod, all of the excavated deposits included *both* Aegean-style and local, "Canaanite" forms from the earliest stages of the Iron Age settlement. Statistical analysis shows the quantitative predominance of Canaanite forms. While there is some range in the percentage of Aegean-style pottery found on any floor, the largest collections tend to fall between 10 and 25%. It should be remembered that these statistics represent discard on the earliest floors following substantial change in ceramic production. Later floors all show larger percentages of Aegean-style forms. Still, it is remarkable that from the beginning Aegean-style cooking

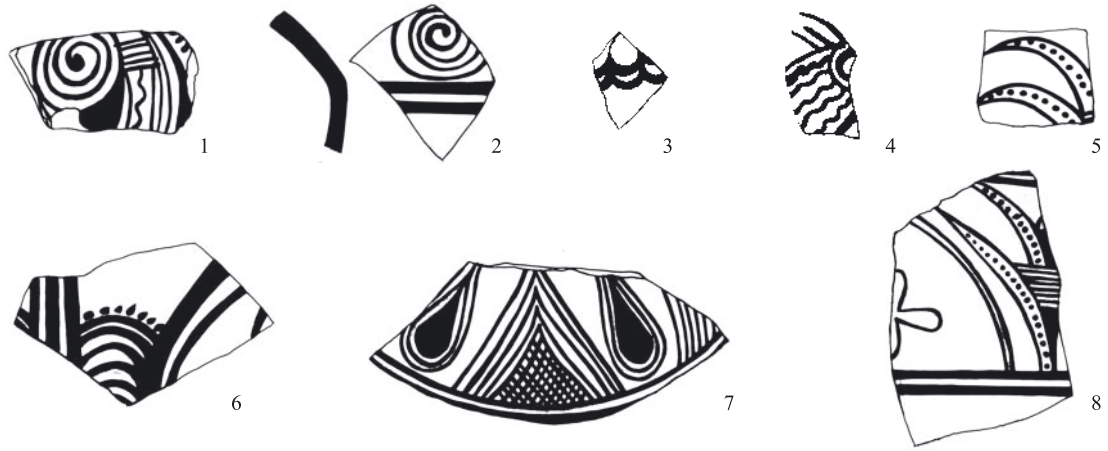

Fig. 8 Mycenaean IIIC pottery from Phase 20a (scale 1:5)
1) A26/04 38.74 L1067 B72 (8344); 2) A26/04 38.63 L863 B44 (8456); 3) A26/04 38.84 L973 B180 (8544); 4) A81/00 38.74 L1020 B207 (1789); 5) A26/04 38.84 L1018 B3870 (8554); 6) A26/04 38.74 L1067 B26 (8151); 7) A50/08 38.75 L482 B3535 (11315)

Aegean Style Kraters (Fig. 8.2)

Ring base kraters (FS 282) are considerably rarer than the shallow angular bowls and bell shaped bowls (cf. DOTHAN and ZUKERMAN 2004: figs. 16–19).

The body is bell-shaped, and there is some variability in rim shapes, most with variants of the T-shape and everted rims. There may be more than a single size category, ranging from 18 cm. in diameter to as large as 28 cm. The decoration is in brown or black, sometimes on a white or light slip.

Stirrup jars (Fig. 8.5)

These appear in the Ashkelon assemblage. No complete example is found, yet sherds of spouts and false mouths were identified.

Spouted and Strainer jugs (Fig. 8.6)

Spouted jugs or feeding bottles (FS 162) and strainer jugs (FS 155) are both uncommon closed forms in the "monochrome" repertoire of Ashkelon. Still, they are thought to comprise an integral part of the wine drinking sets (STAGER 1995: 345) and are totally absent from the Mycenaean IIIB imports to the southern Levant (LEONARD 1994: 44–45).

Straight sided Alabastron or Pyxis (Fig. 8.3)

The straight sided alabastron or pyxis (FS 96) is very rare in the "monochrome" repertoire of Philistia (DOTHAN and ZUKERMAN 2004: 28).

Cooking jug (Fig. 8.7)

Aegean-type cooking jugs were used in both Ashdod and Tel Miqne/Ekron (DOTHAN and ZUKERMAN 2004: fig. 36, 37), side-by-side with the local "Canaanite" cooking pots with a wide mouth and concave base. In both sites, the cooking jugs are rather small, with one or two handles extending from shoulder to lip, and a ring or flat base[10]

pots represent more than 54% of the total cooking pot assemblage when measured across the Phase 20 floors. This larger percentage of Aegean-style cooking pots is particularly interesting in light of substantial functional differences between Canaanite and Aegean-style cooking vessels. It may be that the Philistine newcomers found it possible to use Canaanite jars, storejars, and some bowls, but that the Canaanite cooking pots, which were so functionally different, would not do. Particularly in the earliest years of Philistine settlement, Aegean-style pottery production may have focused more heavily on those forms without any functional parallels in the existing Canaanite repertoire.

[10] The cooking jugs, however, are particularly important for the way in which they illustrate that the Iron 1 Aegean-style assemblage represents a sharp break with what preceded it at Ashkelon. The construction of the cooking jugs reflects a change in the potting craft. Different clay types distinguish "Canaanite" cooking pots and Aegean-style cooking jugs.

Fig. 9 Scarab of Ramses III, identification courtesy of B. Brandl, Photograph by Z. Radovan

While thorough examination of the Mycenaean IIIC pottery from Ashkelon awaits further investigation, the Aegean-style pottery of Phase 20b of is comparable with the earliest levels of "Sea Peoples Monochrome" (STAGER 1995) in Philistia. Mountjoy has argued that this "Philistine 1" pottery spans the LHIIIC Early Phase 2–IIIC Middle divide in Greek mainland terms (MOUNTJOY 2010: 1). The considerable presence of small bell-shaped bowls and hemispherical bowls with simple, linear decoration and spiral on the inner base connect Grid 38, Phase 20b with Ashdod XIIIb and Miqne VIIb, and we agree with Dothan and Zukerman's observation (ZUKERMAN 2004:36) that a linear phase of Mycenaean IIIC pottery in Philistia (Ashkelon Phase 20b) precedes a more elaborate phase (Ashkelon Phase 20a). From the perspective of absolute chronology, the discovery of imported Mycenaean IIIC pottery in Strata S4 and S3 of the Egyptian garrison at Beth Shean (D'AGATA *et al.* 2005) is of great comparative significance. The earlier stratum is dated to the days of Ramses III, the latter to Ramses III and VI. Both should be placed mostly within the first half of the twelfth century B.C., the earlier phase within the first third, indicating that Mycenaean IIIC pottery was present during the reign of Ramses III.[11]

Scarabs from Phase 20

Recent epigraphic finds, including the discovery of a scarab of Ramses III in the earliest Phase 20 deposits at Ashkelon (STAGER, SCHLOEN, MASTER 2008: fig 15.15; identification by B. Brandl), suggest a date within the reign of the same monarch

Different tempers, sand for cooking jugs and shell for cooking pots –, create different thermal properties (KILLEBREW 1999: 108–109; MASTER, in press). More than this, the use of these vessels shows different methods of food preparation. The charred patterns on the rim and sides of the cooking jugs in Philistia, the Aegean mainland and Crete are similar and consistent with slow cooking on the edges of a hearth (YASUR-LANDAU 2002: 174; 2003–2004; 2010). In contrast, the Canaanite cooking pots appear to have been placed directly over open flames. The new construction and use techniques were part of an integrated foodway (MASTER 2005; 2011). At Ashkelon, the cooking jugs were part of a food system that included canine consumption (HESSE: Personal Communication). SNYDER and KLIPPEL (2003:224) note this phenomenon in Crete where they have also been able to track the breakage and cutting necessary for the larger dogs to fit into smaller cooking jugs. All parts of the new foodway are found in Philistia and in the Aegean, and the large-scale reproduction of these integrated patterns points to something more than cross-cultural imitation or elite emulation.

[11] Of particular interest for early cultural interaction are three forms which show Aegean and Canaanite traits from the very earliest appearance of monochrome pottery. Figure 9.9 combines a well-known Canaanite sacred tree motif on the body of a krater with Aegean-style horizontal handles. All of these elements are already present in Late Bronze Age Canaan (MOUNTJOY 2010: 10). Figure 9.8 is a "trichrome" sherd combining the typical bell shaped bowl with red paint (lt. gray) on the rim and handles in the Aegean-style with three stripes in orange-brown (med. gray) and black (black) after the LB Canaanite pattern.

Fig. 10 Jar body with stamp impression showing the cartouche of Ramses III

for the onset of Ashkelon, Phase 20. In 2010, an additional jar fragment stamped with the cartouche of Ramses III was found sealed beneath a Phase 19 floor. A newly identified scarab of Ramses IV from Ashdod area H, Stratum XIIb (KEEL and MÜNGER 2005: 276) and a scarab of Ramses III from area G, Stratum XII (BRANDL 1993: 138–139) support the same chronology. Every one of the royal name scarabs yet found in Philistia fits within a chronological framework in which the earliest Iron Age phases with Mycenaean pottery occur in the first half of the twelfth century, during the period when the Egyptian empire still dominated the surrounding area.

Phase	Total Number	Clearly Residual
20	11	2
19	7	4
18	3	0
17	3	1

Table 1 Scarabs from Iron 1 Ashkelon

More than this, the total corpus of scarabs from Ashkelon supports the idea that the Egyptian scarabs were in use during Phase 20, but fell out of use soon after. Most scarabs from Ashkelon Phase 20 are generic scarabs of the 19th–20th dynasties (KEEL 1995:§§39, 42, 54, 62, 63, 64, 65, 70); a few are clearly residual. Given the well known decline in imports following Ramses VI (or perhaps even Ramses IV), it would seem most likely that these scarabs arrived in Ashkelon before the final third of the 12th century (BRANDL 2002; BIETAK 1993). It is noteworthy that no scarab or cartouche later than Ramses III has ever been found in the earliest contexts containing Myc. IIIC pottery.

Varia

The excavations in Phase 20 uncovered an unusual variety of worked bone and ivory with decorations similar to those discovered by Loud in Megiddo, Stratum VII (LOUD 1939). Similarly, a fine Egyptian bead necklace with over six thousand colored beads was found broken on a Phase 20b floor, and, in yet another room, a faience cluster of grapes was placed as an offering next to a plastered altar (MASTER and AJA, in press). Each of these delicate objects has a limited lifespan, and their appearance on the floors of rooms demonstrates their ongoing use within Phase 20. While these objects are not typically examined for their chronological implications, each of them reinforces the contemporaneity of Ashkelon, Phase 20 and the Egypto-Canaanite world of the first three quarters of the twelfth century.[12]

[12] The many objects of Egyptian manufacture in Phase 20 force us to reconsider the relationship between Egypt and Ashkelon during the reign of Ramses III. BIETAK (1993: 300) and STAGER (1995: 344) highlighted the absence of Egyptian objects in Ashkelon, Ashdod, and Ekron as evidence of a sharp cultural boundary between the Egypto-Canaanite and Philistine cultural worlds (contra SINGER 1990: 291–2). Recently, new studies of architecture (AJA 2009), industry (MAZOW 2008), foodways (YASUR-LANDAU 2010), and ceramic production (KILLEBREW 1998) have sharpened our understanding of these cultural boundaries to the extent that the paucity of Egyptian objects is no longer the primary criteria for marking an independent Philistine cultural sphere. At the same time, the discoveries at Ashkelon raise the possibility that fine Egyptian objects were appropriated successfully by the earliest Iron Age inhabitants.

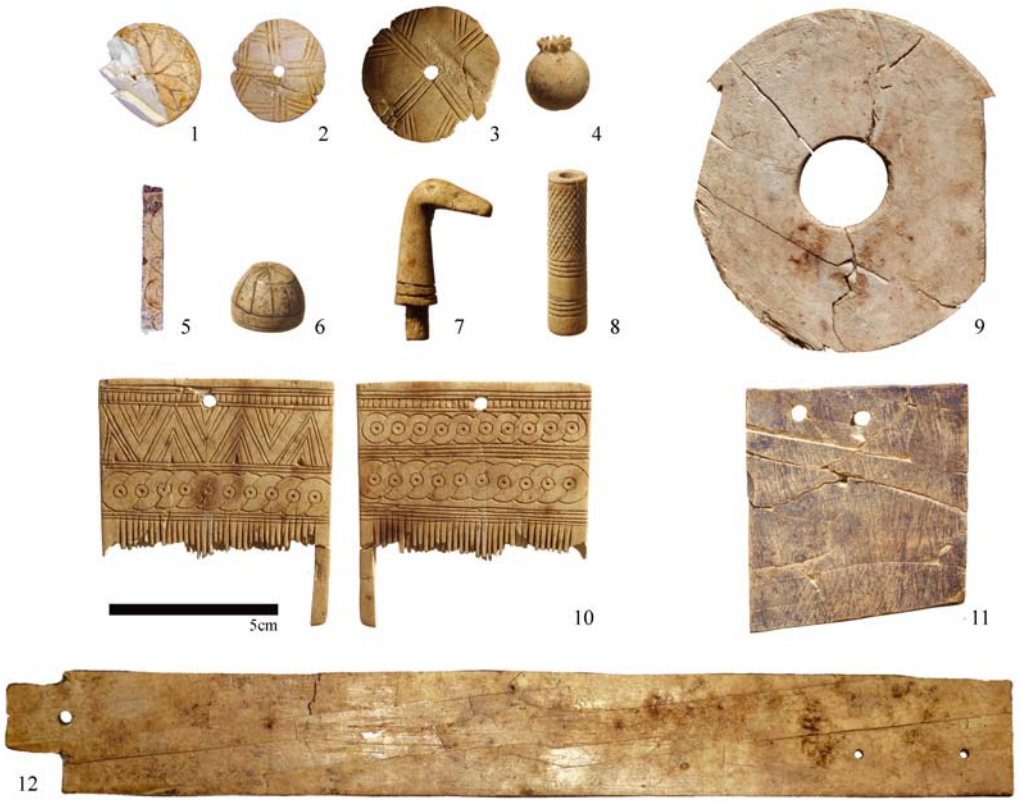

Fig. 11 Worked Bone and Ivory implements from Phase 20
1) 26/04 38.73 LF 569 B23 MC 56635, see decoration in Loud 1939: pl. 13, no. 56; Sass 2004: fig. 23.32.9; 2) 26/04 38.63.80 L861 B77 MC 56757; 3) 26/04 38.64.73 LF1014 B54 MC 56436; 4) 26/04 38.63 L860 B40 MC 56588, see Ward 2003, Tufnell, I., and Harding 1940: pl. XX:26; 5) 26/04 38.84 L973 B271 MC 56705, see Loud 1939: pl. 34, no. 166; 6) 26/04 38.83 L573 B67 MC 56480, see Loud 1939: pls. 52, 53; 7) 26/04 38.64 L1048 B182 MC 56848, see Loud 1939: pl. 45, nos. 202, 211; 8) 26/04 38.74 L1067 B188 MC 56706, see Loud 1939: pl. 56, no. 295; 9) 35/09 38.75 L571, B4422 MC60360, see Loud 1939: pl. 17; Sass 2004: fig 23.21.7; 10) 26/04 38.63.47 LF 858 B28 MC 56549, see Loud 1939: pls. 16–18, 59, nos. 327–230; 11) 35/09 38.75 L595 B4583 MC60621; 12) 35/09 38.75 LF577 B4515 MC60477

Conclusion

In the transition between the Bronze and Iron Ages, the southern Levant was transformed. In Philistia, many excavations bear evidence of deep change at the end of the thirteenth and the beginning of the twelfth century. Some appear as complete changes in architectural layout; others bear the additional marks of military conquest.

The Canaanite town of Ekron was burned (Dothan 1998: 150–151), although evidence from field I (Killebrew 1998a: 381–382) may indicate that the Canaanite settlement of Stratum VIII continued for some time after the destruction of Stratum IX , *before* the appearance of Aegean material culture in Stratum VII. In other fields, architectural changes were not preceded by evidence of destruction (Gitin, Meehl, and Dothan 2006). In Ashdod, a thick ash layer marked the end of a rather small area inside Area A (Dothan 1993: 96; 1971: 25). In other areas, new buildings were constructed in the collapse of the Canaanite city without evidence of a violent transition (Dothan and Porath 1993: 47).

At Ashkelon, Merenptah claims to have conquered Ashkelon at the end of the thirteenth century (Stager 1985). We would combine this claim with the archaeological discoveries and propose that the Egyptian conquest was consolidated by the building of the Egyptian style precinct wall (Phase 21) in the late thirteenth or early twelfth century (Martin 2010). This Egyptian architectural phase

appears to have been short lived, with almost no buildup on the few excavated living surfaces and no signs that the Egyptian precinct wall was ever even finished. Still, its construction provides a break with the Canaanite buildings of the thirteenth century and shows a substantial Egyptian role in the collapse of the Canaanite world of the southern Levant. A new Iron Age settlement, Grid 38, Phase 20, succeeded the unfinished Egyptian wall and silos, with this area now becoming a domestic quarter of the city. New potting traditions interrupted the old ways, and new architectural traditions pointed to new social trends (AJA 2010). We interpret the Iron Age finds at Ashkelon as the result of migrating "Sea Peoples," a new population in the world of the late thirteenth and early twelfth century. At least at Ashkelon, while the Philistines cannot be considered the sole reason for the collapse of Canaanite Ashkelon, they became its chief beneficiaries.

The date of the Phase 20 settlement can be established using tried and true archaeological methods. The pottery which continues the Late Bronze Age traditions is identical to the forms from Lachish VI; the locally made Mycenaean pottery spans the Mycenaean IIIC Early 2–Middle divide; the glyptic finds and other imports point to a date when the Egyptians were still heavily involved in the surrounding regions in the early 20th dynasty. All of these archaeologically derived dates can be correlated with the writings of Ramses III at Medinet Habu and in Papyrus Harris. These texts may require sensitivity to Egyptian custom and may include several obscurities, but the archaeologically derived chronology of Ashkelon and the descriptions of the Sea Peoples along the northern border of Egypt in the first half of the twelfth century remain mutually reinforcing data sets supporting a date of *circa* 1170 for the founding of Philistine Ashkelon.

In recent discussions which argue for a later date for the founding of Iron Age Ashkelon, the lack of Mycenaean IIIC pottery at the ancient town of Lachish has been overemphasized as a chronological marker (USSISHKIN 2004, 2008; FINKELSTEIN 1995, 1998). It is unfortunate, from the perspective of our modern search for chronological comparisons, that the inland small town of Lachish was not integrated into the Mediterranean world enough to have the full range of forms present in the twelfth century. The provincialism of this Egyptian-dominated settlement is primarily of local concern. Instead, the close parallels between the pottery forms that are present at both Ashkelon and in Lachish's more limited repertoire tell the tale of contemporary cities in the middle of the 12th century.[13]

Philistine settlement was undoubtedly a complex process. Ekron dramatically increased in size in the mid-twelfth century. Ashdod spread outside the acropolis only in the eleventh century (DOTHAN 1993: 98). Ashkelon, with huge Middle Bronze ramparts still ringing the 70 hectare city, did not need new fortifications, and within the city, space was plentiful. While there is no direct archaeological evidence of any violent interaction between new immigrants and any local population in the city, and some aspects of life continued as before, the twelfth century architecture represents a total departure from the patterns of the past (AJA 2010). The Canaanite name *Ashkelon* remained, as did the Semitic names of all of the other cities in the region, but we have found evidence that the region immediately became *Philistia*.

[13] In our opinion, BIETAK's (1993) proposal of political boundary maintenance by Egypt which was later picked up by STAGER (1995) or BUNIMOVITZ and FAUST's (2001) discussion of cultural boundaries remains the best explanations for Lachish's ceramic predicament.

Bibliography

Aja, A.

2009 *Philistine Domestic Architecture in the Iron Age I*, PhD dissertation, Harvard University.

Bauer, A.A.

1998 Cities of the Sea: Maritime Trade and the Origin of Philistine Settlement in the Early Iron Age Southern Levant, *OJA* 17, 149–168.

Ben-Shlomo, D.

2005 Chapter 3: Material Culture, 63–246, in: M. Dothan and D. Ben-Schlomo (eds.) 2005.

Bietak, M.

1993 The Sea Peoples and the End of the Egyptian Administration in Canaan, 292–306, in: A. Biran, and J. Aviram (eds.), *Biblical Archaeology Today, 1990. Proceedings of the Second International Congress on Biblical Archaeology. Jerusalem, June–July 1990*, Jerusalem.

Bierling, N.

1998 *Report on the 1995–1996 Excavations in Field XNW: Areas 77, 78, 79, 89, 101, 102. Iron Age I. Text and Data Base (Plates, Sections, Plans)* The Tel Miqne-Ekron Limited Edition Series, No. 7, Jerusalem.

Brandl, B.

1993 Scarabs, a Scaraboid and a Scarab Impression from Area G (1968–1970), 129–142, in: M. Dothan and Y. Porath (eds.) 1993.

2002 Scarabs and Plaques bearing Royal Names of the Early 20th Egyptian Dynasty excavated in Canaan-from Sethnakht to Ramesses IV, 57–71, in: M. Bietak and E. Czerny (eds.), *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant: Chronological and Historical Implications*, CChEM 8, Vienna.

Bunimovitz, S. and Faust, A.

2001 Chronological Separation, Geographical Segregation, or Ethnic Demarcation? Ethnography and the Iron Age Low Chronology, *BASOR* 322, 1–10.

Clamer, C.

2004a Section A: The Pottery from Levels P-2 and P-1 in Area P, 1155–1234, in: D. Ussishkin (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

2004b The Pottery and Artefacts from the Level VI Temple in Area P, 1288–1368, in: D. Ussishkin (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

D'Agata, A. L., Goren, Y., Mommesen, H., Schwadt, A. and Yasur-Landau, A.

2005 Imported Pottery of LH IIIC style from Israel. Style, rovenance, and Chronology, 371–379, in: R. Laffineur and E. Greco (eds.), *Emporia. Aegeans in the Central and Eastern Mediterranean. Proceedings of the10th International Aegean Conference. Athens, Italian School of Archaeology, 14–18 April 2004*. Liège.

Dothan, M.

1971 *Ashdod II–III. The Second and Third Season of Excavations 1963, 1965, Sounding in 1967. Text and Plates*, 'Atiqot 9–10, Jerusalem.

1993 Ashdod, 93–102, in: E. Stern (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land*, Jerusalem.

Dothan, M. and Ben-Shlomo, D.

2005 *Ashdod VI: The Excavation of Areas H and K (1968–1969)*, Jerusalem.

Dothan, M. and Freedman, D.N.

1967 *Ashdod I. The First Season of Excavations*, 'Atiqot 7, Jerusalem.

Dothan, M. and Porath, Y.

1993 *Ashdod V. Excavations of Area G. The Fourth-Sixth Season of Excavations 1968–1970*, 'Atiqot 23, Jerusalem.

Dothan, T.

1982 *The Philistines and Their Material Culture*, Jerusalem.

1989 The Arrival of the Sea Peoples: Cultural Diversity in Early Iron Age Canaan, *AASOR* 49, 1–22.

1998 The Pottery, 20–48, in: N. Bierling (ed.), *Report on the 1995–1996 Excavations in Field XNW: Areas 77, 78, 79, 89, 101, 102. Iron Age I. Text and Data Base (Plates, Sections, Plans),* The Tel Miqne-Ekron Limited Edition Series, No. 7, Jerusalem.

Dothan, T. and Zukerman, A.

2004 A Preliminary Study of the Mycenaean IIIC:1 Pottery Assemblages from Tel Miqne-Ekron and Ashdod, *BASOR* 333, 1–54.

Dothan, T., Gitin, S. and Zukerman, A.

2006 The Pottery: Canaanite and Philistine Traditions and Cypriote and Aegean Imports, 71–179, in: M.W. Meehl, T. Dothan and S. Gitin (eds.), *Tel Miqne-Ekron Excavations 1995–1996. Field INE East Slope Iron Age I (Early Philitine Period).* Tel Miqne Ekron Final Field Report Series No. 8, Jerusalem.

Drews, R.

2000 Medinet Habu: Oxcarts, Ships, and Migration Theories, *JNES* 59, 161–190.

Finkelstein, I.

1995 The Philistines in Canaan, *Tel Aviv* 22, 213–239.

1996 The Philistine Countryside, *IEJ* 46, 225–242.

1998 Philistine Chronology: High Middle or Low? 140–147, in: S. Gitin, A. Mazar and E. Stern (eds.), *Mediterranean Peoples in Transition. Thirteenth to Early Tenth Centuries BCE*, Jerusalem.

Furumark, A.

1941 *The Mycenaean Pottery. Analysis and Classification*, Stockholm.

GITIN, S., MEEHL, M.W., and DOTHAN, T.

2006 Occupational History-Stratigraphy and Architecture, 27–70, in: M.W. MEEHL, T. DOTHAN and S. GITIN (eds.), *Tel Miqne-Ekron Excavations 1995–1996. Field INE East Slope Iron Age I (Early Philitine Period).* Tel Miqne Ekron Final Field Report Series No. 8, Jerusalem.

GIVEON, R., SWEENY, D. and LALKIN, N.

2004 Section D: The Inscription of Ramses III, 1626–1628, in: D. USSISHKIN (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

JORDAN, S.C.

2000 Coarse Earthenware at the Dutch Colonial Cape of Good Hope, South Africa: A History of Local Production and Typology of Products, *Historical Archaeology* 4/2, 113–143.

KARAGEORGHIS, V.

1974 *Excavations at Kition. I. The Tombs (Plates)*, Nicosia.

1990 *The End of the Late Bronze Age in Cyprus*, Nicosia.

KARAGEORGHIS, V. *et al.*

1981 *Excavations at Kition. IV. The Non-Cypriot Pottery*, Nicosia.

KARAGEORGHIS, V. and DEMAS, M.

1988 *Excavations at Maa*-Paleokastro *1979–1986*, Nicosia.

KEEL, O.

1998 *Goddesses and Trees, New Moon and Yahweh: Ancient Near Eastern Art and the Hebrew Bible*, JSOT Supplement 261, Sheffield.

KEEL, O. and MÜNGER, S.

2005 *Chapter 6: The Stamp Seal Assemblage*, 273–279, in: M. DOTHAN and D. BEN-SHLOMO (eds.) 2005.

KEEL, O. and UEHLINGER, C.

1998 *Gods, Goddesses and Images of God in Ancient Israel*, Edinburgh.

KEMPINSKI, A.

1989 *Megiddo: A City State and Royal Centre in North Israel*, Munich.

KILLEBREW, A.

1998a Ceramic Typology and Technology of Late Bronze II and Iron I Assemblages from Tel Miqne-Ekron: The Transition from Canaanite to Philistine Culture, 379–405, in: S. GITIN, A. MAZAR and E. STERN (eds.), *Mediterranean Peoples in Transition. Thirteenth to Early Tenth Centuries. BCE*, Jerusalem.

1998b *Ceramic Craft and Technology During the Late Bronze and Early Iron Ages: The Relationship between Pottery Technology, Style, and Cultural Diversity*, PhD Dissertation, Hebrew University.

1999 Late Bronze and Iron I Cooking Pots in Canaan: A Typological, Technological and Functional Study, 83–126, in: T. KAPITAN (ed.), *Archaeology, History and Culture in Palestine and the Near East. Essays in Memory of Albert E. Glock*, Atlanta, GA.

LEHMANN G. *et al.*

2009 Ausgrabungen in Qubur el-Waleyide, Israel, 2007–2008. Vorbericht, *ZDPV* 125.1, 1–28.

LEONARD, A., JR.

1994 *An Index to the Late Bronze Age Aegean Pottery from Syria Palestine*, Jonsered.

LEONARD, A. and CLINE, E.

1998 The Aegean Pottery of Megiddo: An Appraisal and Reanalysis, *BASOR* 309, 3–40.

LOUD, G.

1939 *The Megiddo Ivories*, OIP 52, Chicago.

MANNING, S.W. *et al.*

2001 Absolute age range of the Late Cypriot IIC Period on Cyprus, *Antiquity* 75.288, 328–340.

MARTIN, M.

2010 Egyptian Fingeprints at Late Bronze Age Ashkelon: Egyptian-Style Beer Jars, 297–304, in J. D. SCHLOEN (ed.), *Exploring the Longue Durée*, Winona Lake, IN.

MASTER, D.M.

2005 Iron I Chronology at Ashkelon: Preliminary Results of the Leon Levy Expedition, 337–348, in: T. E. LEVY and T. HIGHAM (eds.), *The Bible and Radiocarbon Dating*, London.

2009 The Renewal of Trade at Iron 1 Ashkelon, *Eretz Israel* 29 (Stern Volume), 111*–122*.

in press Home Cooking at Ashkelon, *Papers of the International Archaeological Symposium*, Nicosia, Cyprus.

MASTER, D.M. and AJA, A.J.

in press The House Shrine of Ashkelon, *IEJ.*

MAZAR, A.

1985 The Emergence of the Philistine Material Culture, *IEJ* 35, 95–107.

MAZOW, L.B.

2008 The Industrious Sea Peoples: The Evidence of Aegean-Style Textile Production, *Cyprus and the Southern Levant*. *Scripta Mediterranea* 27/28, 291–322.

2005 *Competing Material Culture: Philistine Settlement at Tel Miqne-Ekron in the Early Iron Age*, Ph.D. Dissertation, The University of Arizona.

MOUNTJOY, P.A.

1986 *Mycenaean Decorated Pottery: A Guide to Identification*, SIMA 73, Göteborg.

1999 *Regional Mycenaean Decorated Pottery*, Rahden/Westf.

2010 A Note on the Mixed Origins of Some Philistine Pottery, *BASOR* 359, 1–12.

PANITZ-COHEN, N.

2006 The Pottery of Strata XII-V, 9–150, in: N. PANITZ-COHEN and A. MAZAR (eds.) *Timnah (Tel Batash) III: The Finds from the Second Millennium BCE*, Qedem 45, Jerusalem.

SASS, B.

2004 Vessels, Tools, Personal Objects, Figurative Art and Varia, 1983–2057, in: D. USSISHKIN (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

SCHIFFER, M.B.

1987 *Formation Processes of the Archaeological Record*, New Mexico.

SHERRATT, S.

1992 Immigration and Archaeology: Some Indirect Reflections, 316–347, in: P. ÅSTRÖM (ed.), *Acta Cypria: Acts of an International Congress on Cypriote Archaeology Held in Göteborg on 22–24 August 1991. Part 2,* SIMA Pocket-Book 117, Jonsered.

1998 "Sea Peoples" and the Economic structure of the Late Second Millenium in the Eastern Mediterranean, 292–313 in: S. GITIN, A. MAZAR and E. STERN (eds.), *Mediterranean Peoples in Transition. Thirteenth to Early Tenth Centuries. BCE*, Jerusalem.

SINGER, I.

1990 Egyptians, Canaanites and Philistines in the Iron I, 348–402, in: N. NA'AMAN and I. FINKELSTEIN (eds.), *From Nomadism to Monarchy. Archaeological and Historical Aspects of Early Israel*, Jerusalem.

SNYDER, L. and KLIPPEL, W.

2003 From Lerna to Kastro: further thoughts on dogs as food in ancient Greece; perceptions, prejudices, and reinvestigations, 221–232, in: E. KOTJABOPOLULOU, P. HALSTEAD, C. GAMBLE, and P. ELEFANTI (eds.), *Zooarchaeology in Greece: Recent Advances*, BSA Studies 9, London.

STAGER, L.E.

1985 Merneptah, Israel and Sea Peoples: New Light on an Old Relief, *Eretz Israel* 18 (Avigad Volume), 56*–64*.

1995 The Impact of the Sea Peoples in Canaan (1185–1050 BCE), 332–348, in: T.E. LEVY (ed.), *The Archaeology of Society in the Holy Land.* New York.

1998 Forging an Identity: The Emergence of Ancient Israel, 123–176, in: M. COOGAN (ed.), *The Oxford History of the Biblical World*, Oxford.

STAGER, L.E., SCHLOEN, J.D., and MASTER, D.M. (eds.)

2008 *Ashkelon I*, *Introduction and Overview (1985–2006),* Winona Lake, Ind.

SWEENEY, D. and YASUR-LANDAU, A.

1999 Following the Path of the Sea Persons: The Women in the Medinet Habu Reliefs, *Tel Aviv* 26, 116–145.

TUFNELL, O., INGE, C.H., and HARDING, L.

1940 *Lachish II: The Fosse Temple*, London.

USSISHKIN, D.

1998 The Destruction of Megiddo at the End of the Late Bronze Age and its Historical Significance, 197–219, in: S. GITIN, A. MAZAR, and E. STERN (eds.), *Mediterranean Peoples in Transition. Thirteenth to Early Tenth Centuries. BCE*, Jerusalem.

2004 Section B: The Level VI Pottery from Area D and GE, 1235–1261, in: D. USSISHKIN (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

WENINGER, B. and JUNG, R.

2009 Absolute Chronology of the End of the Aegean Bronze Age, 373–416, in: S. DEGER-JALKOTZY and M. ZAVADIL (eds.), *LH IIIC Chronology and Synchronisms. Proceedings of the International Workshop Held at the Austrian Academy of Sciences at Vienna, May 7th and 8th, 2001*, Vienna.

YANNAI, E.

2004 The Late Bronze Age Pottery from Area S, 1032–1146, in: D. USSISHKIN (ed.), *The Renewed Archaeological Excavations at Lachish (1973–1994)*, Tel Aviv.

YASUR-LANDAU, A.

2002 *Social Aspects of the Aegean Migration to the Levant in the End of the 2nd Millennium BCE*, Ph.D. Dissertation, Tel Aviv University.

2010 *The Philistines and Aegean Migration at the End of the Late Bronze Age*, Cambridge.