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An Archaeological Contribution to the Early Iron Age Chronological Debate: Alternative Chronologies for Phoenicia and Their Effects on the Levant, Cyprus, and Greece

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The debate over the chronology of the early Iron Age in Israel by far transcends Palestinian archaeology, history, and biblical historiography. Chronologies for most of the adjacent regions, and those of entities farther afield, such as Cyprus and Greece, are largely dependent on the Levant. The debate has centered to date mainly on historical considerations, adjusting the chronologies of the material record to the different proposed scenarios. This article advocates an opposite approach, namely, constructing detailed artifactual, mainly ceramic sequences, anchoring these to an absolute time scale by ^{14}C dating, and only then correlating them with historical data. Southern Phoenicia is proposed as a starting point for such an endeavor. Not only does it offer the most detailed stratigraphic/ceramic sequence to date for the early Iron Age in the Southern Levant, its commercial ties provide a wealth of ceramic indices for correlating the Phoenician sequence with other series of the Levant and farther Mediterranean regions. To a large extent these overcome problems of regionalism, which otherwise hamper attempts at chronological cross-correlations in this relatively fragmented period. Two alternative chronologies are presented: the traditional, high chronology, which has been established mainly on the basis of biblical/historical considerations, and the newly proposed low one, which is supported by radiometric dates from Tel Dor. The adoption of either one will entail a revision of parts of the Cypro-Geometric and Greek (Euboean) Proto-Geometric chronologies.

INTRODUCTION

The dispute regarding the absolute date of the early Levantine Iron Age (12th to 10th centuries B.C.E.) has been highly publicized due to the doubt that the proposed "low chronology" casts over the historicity of David's and Solomon's "United Monarchy." The down-dating, by a century or thereabouts, of large-scale fortification and construction projects commonly attributed to the latter is perceived as supporting the notions of the so-called deconstructionist or revisionist school in the debate over the historicity of the Deuteronomistic narrative in the Bible (the literature on the subject is vast; for book-sized expositions of various facets of the debate, see, e.g., Garbini 1986; Davies 1992; Thompson 1994; 1999; Niemann 1993; Fritz and Davies 1996; Whitelam 1996; Grabbe 1997; Handy 1997; Lemche 1998; Dever 2001; Finkelstein and Silberman 2001 and contributions and references therein).

But David's and Solomon's achievements are but few among a plethora of cultural phenomena that will be affected by a revision of the Levantine chronological framework. As early Iron Age chronologies of other regions around the Mediterranean are largely based on the Levantine one, the implications

of this chronological controversy by far transcend this region. It affects the Cypriot chronology, that of Proto-Geometric Greece, and therefore the entire issue of the cross-Mediterranean recovery from the "dark age" following the collapse of the Bronze Age.

The debate has centered mainly on historical argumentation. To be sure, archaeologists do take center stage in these discussions, and archaeological arguments are used both by the protagonists of the conventional, higher, chronology and by advocates of the newly proposed lower one to bolster their respective stands. However, currently archaeology must play a secondary role inasmuch as the general method used is to try to fit the archaeological data into a preexisting historical narrative based on (differing interpretations of) the textual corpus.

Egyptian records are sparse in the Third Intermediate period and the Phoenician and Greek histories are for the most part late. It is therefore the biblical accounts that are the mainstay of the Levantine chronology in the early Iron Age (and, in lessening order of magnitude, that of Phoenicia, Cyprus, Greece, and even points farther west). Such an approach is perfectly viable as long as the assumption is that these narratives are substantially correct. Once the historiography of the major sources is challenged, by any of the parties in the debate, such a methodology becomes moot. No further application of it would be able to break the impasse.

We advocate a double change of focus: first, to concentrate on the very basics of the archaeological enterprise, namely, rebuild an independent archaeological chronology for the Levant, and second, as a first step, to center this framework not on Israel but on Phoenicia.

This paper thus introduces a detailed proposal for the construction of the chronology of southern Phoenicia. It entails (1) a construction of a framework of relative chronology (including a new terminological framework for Phoenicia) based on a comparative study of ceramics, illustrated and explicitly discussed; (2) the establishment of absolute dates for this framework, based on ^{14}C determinations; and (3) determination of the network of intra-, inter- and super-regional contacts, to reconstruct cross-cultural synchronisms (for a somewhat similar approach, but employing different data, see Nuñez Calvo 2001).

Current dating schemes are based on a combination of three types of considerations: relative (artifactual) periodization, absolute dating, and "historical wiggle matching" to the best-fitting historical scenario. The blurring of these three is the root of much of the current chronological confusion. The most poignant lesson of the whole "lost (and found?) 10th century" debacle, for all concerned, is that one cannot assume the historical corollaries of the archaeological periods in question to be a known quantity. The only possible way out of the tangle of archaeological/historical/biblical argumentations is to rebuild the chronological system, keeping a strict separation between ceramic seriation, the anchoring of said series to an absolute time scale, and only then fitting them both onto a historical scenario. As long as *any* historical/biblical scenario is used as a presumption in the building of a chronological scheme for this period, it disqualifies archaeology as a legitimate voice in the debate—at least in the eyes of those who would consider said "history" to be essentially a work of fiction. It seems as if archaeological artifacts and strata can be haphazardly whipped 50 years this way or that on the slightest whim. This perfectly fits the "nihilistic" program, where opinions like "it has no longer been possible to date archaeological finds from the 10th or 9th century B.C.E. more exactly than plus or minus 50 years" (Niemann 1997: 262; see also Lemche 1996: 119 n. 32) are rife.

The systematics of early Iron Age periodization, it sometimes seems, have seen little progress since the works of Aharoni and Amiran (1958; Amiran 1969: 95). There have been few attempts at a finer subdivision of the first part of the Iron Age since (cf. Mazar 1990: 295–96 and n. 2 on p. 363 for a short overview), and no substantiated generally agreed-upon terminology has appeared. It is significant that in the veritable deluge of publications on the chronological dispute, there are few serious attempts at systematic and explicit seriation, cross-correlation, and periodization of material culture assemblages of the early Iron Age to demonstrate what an author might mean by terms such as "typically 10th [11th, or 9th] century pottery" (for schematic expositions, note, e.g., Zarzeki-Peleg 1997a; Mazar 1999: 37–42; Finkelstein 1998).

Given that a new chronological scheme for the early Iron Age is a necessity, why use Phoenicia as its basis? Traditionally, the "Israelite settlement" phenomenon has been used as the defining feature for the Iron I period and for chronological subdivisions within it (e.g., Albright 1943: 36–37 for Tell Beit Mirsim). "Settlement" sites, however, by their nature, tend to be either shallow single-occupation sites or appear as "intermediate," nonarchitectural, or pit phases within complexly stratified sites. In either case, the definition of an intrasite stratigraphic sequence and hence a reliable local pottery series is problematic. In

addition, many of the "formative" excavations, in which the "Israelite" Iron Age I was defined, must by now be regarded old to obsolete, while much of the new data are based on survey rather than excavation and hence are not useful for our purpose.

Another long-standing scheme for the periodization of Iron Age I was proposed by Wright (1961: 95–96, chart 8) and recently argued for by Mazar (e.g., 1990: 296; Bruins, van der Plicht, and Mazar 2003: table S2). It is based on *Egyptian* chronology and divides the Iron Age I into two. First comes a short "Iron Age IA," comprising most of the 20th Dynasty until somewhere in the range of late Ramesses III to Ramesses VI (ca. 1200–ca. 1150 B.C.E.) and then a lengthy "Iron Age IB" for the latter part of the 20th Dynasty and most of the 21st (ca. 1150–ca. 1000 B.C.E.). The problem with this scheme is that, with the possible exception of Egyptian garrisons like Beth Shean, where Egyptian and Egyptianizing finds are prevalent, pinpointing the Iron Age IA on archaeological grounds may be impossible. Indeed, contexts nowadays datable to that horizon were universally considered Late Bronze Age until the fortuitous discovery of a single Egyptian epigraphic find (e.g., at Lachish; Ussishkin 1985). Thus it has been argued that the period of the 20th Dynasty should still be considered within the Late Bronze Age (e.g., Ussishkin 1985). On the other hand, the lengthy Iron Age IB, wherein typological subdivisions *can* be made (see below), remains a monolithic unit.

Another option would be to base a new chronological scheme on Philistia and the southern coast. Indeed, one of the first viable attempts to impose an inner subdivision in the Iron I period had been based on the evolution of Philistine Bichrome decorated ware, later augmented by that of its Monochrome or "locally made Myc. IIIC" predecessor (e.g., Dothan 1982; chaps. 3, 6; Mazar 1985b; Finkelstein 2000). The problem here is that the "Philistine ware" is a localized phenomenon. The Monochrome ware rarely, if ever, left the sites at which it was manufactured. Philistine Bichrome did occasionally travel, but only to a limited extent.[1] An explicit elucidation of the temporal evolution of undecorated ceramics in Philistia has never been presented, though some of its sites, chiefly Tell Qasile, Ashdod, and now also Tel Miqne-Ekron, certainly warrant such an endeavor. This creates problems in correlating that sequence with non-Philistine sites, as is evidenced in such quandaries as, Does one have to posit chronological gaps between sites that have abundant "Myc. IIIC" and adjacent ones in which not a single sherd was found? (Finkelstein 2000), or, conversely, May one assume a chronological overlap between "Iron Age Philistine" sites and "Late Canaanite" or "Egypto-Canaanite" ones datable to the late 20th Egyptian Dynasty? (e.g., lately, Dothan 2000: 146; Bunimovitz and Faust 2001).

In southern Phoenicia a series of excavations on the southern Lebanese and northern Israeli coast (fig. 1) has resulted in a sprinkling of final reports and dissertations (Sarepta: Pritchard 1975; Koehl 1985; Anderson 1988; Khalifeh 1988; Tyre: Bikai 1978; Tell Keisan: Briend and Humbert 1980; Burdajewicz 1992; 1994; Tell Abu Hawam: Balensi 1980; Herrera-Gonzales 1990; Dor: Gilboa 2001b), inter alia focusing on stratified Iron Age ceramic sequences. Unlike many highland sites, the tells on the Phoenician littoral typically display a rich stratification of the Iron Age I (and II) horizons. These enable us, for the first time, to build a reliable ceramic sequence for a period of Phoenician history that was practically an archaeological terra incognita 25 years ago. Most important is the fact that even in this period of comparative insularity, some Phoenician pottery is found in almost any Iron Age I–II site, enabling the correlation of the Phoenician sequence to the "Israelite" and Philistine ones. Phoenician pottery is found in Cyprus and, to a lesser extent, in Greece, thus enabling the correlation of the Levantine sequence to other Mediterranean ones. Conversely, quantities of Cypriot pottery and, to a much lesser extent, Greek and Egyptian ceramics are found in Phoenician sites.

Thus, an attempt has been made at implementing such a program, based chiefly on one key site—Tel Dor, excavated in the last two decades by E. Stern of the Hebrew University, with a large international consortium. A sequential set of 22 ^{14}C determinations from the early Iron Age levels of this site was recently published (Gilboa and Sharon 2001; Sharon 2001: fig. 1), which fits the framework of the newly proposed low chronology. Though we did describe the ceramic assemblages accompanying the samples in general terms, we deferred a full exposition of our "chronological horizons."

What follows, then, is an explicit presentation of the Tel Dor early Iron Age stratigraphy, ceramic typology, contextual value of both pottery and organic

[1] Finkelstein, on the other hand (e.g., 1996; 2000), advocates a diametrically opposed approach, employing the presence and *absence* of both Philistine Monochrome/Bichrome and imported "Myc. IIIC" as a major chronological index for large stretches of the country.

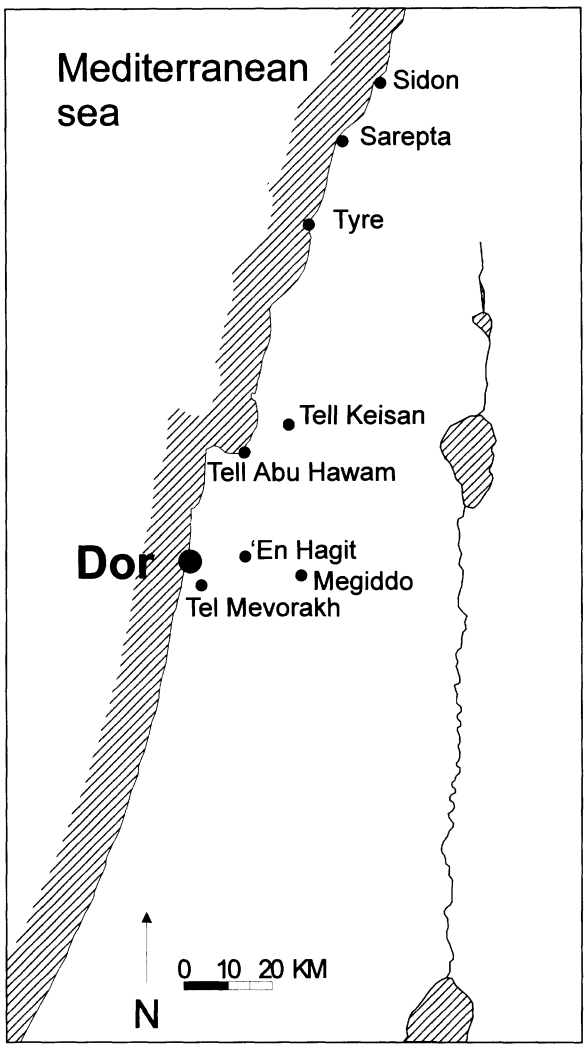


Fig. 1. Location map of main sites mentioned in text.

samples, regional comparanda—and their chronological implications.

TEL DOR

Stratigraphy, Architecture, and Nomenclature

Two decades of E. Stern's excavation at Dor offer one of the most extensive exposures to date of a detailed early Iron Age sequence on the northern Levantine littoral (see Stern 2000a for a semi-popular overview, including references to preliminary publications; Stern 1990; 1991; 1999; 2000b; Sharon and Gilboa 1997; in press; Stern et al. 1995: chap. 11 for a full bibliography up to 1995; an up-to-date bibliography is maintained in *http://www.arts.cornell.edu/jrz3/TelDor/dorbib.htm*). Early Iron Age levels were encountered in six excavation areas, three of which (Areas B1, D2, and G; for a plan of excavation areas, see Stern 2000a: fig. 35) will be discussed here. No unified stratigraphic scheme exists yet for the early Iron Age at Dor. Stratigraphic designations are therefore local (counted from top down) for each area. Tables 1–9 and figures 2–17 summarize the stratigraphic and typological sequences for these areas; for a more detailed presentation of the architectural sequence, see Sharon and Gilboa in press.

Area G, a residential-cum-household-industry section in the center of town, affords the most complete stratigraphic sequence for the periods in question, as it contains an (almost; see below) unbroken sequence from the Late Bronze Age (Phase G/12) to the Iron Age IIA (Phase G/6a). Phase G/9 was destroyed by a massive fire, though the houses were quickly rebuilt along the same lines and continued to be used with some changes through Phases G/8–G/6.

Area B1 is located on the eastern slope of the mound and produced mainly a sequence of fortifications, with adjacent structures. The earliest Iron Age remains (Phases B1/13–12) consist of a massive fortification wall which was founded directly on top of virgin sand. No Late Bronze Age remains were found here (except in secondary deposition). Following a fierce fire at the end of Phase 12, the character of the area changes to a district of mudbrick houses, which gradually expands eastward in Phases B1/11–9, beyond the earlier fortification wall. A new fortification line was subsequently built some 20 m east of the former one, but it is not quite clear whether that happened immediately after the destruction of the earlier fortifications or at some later phase (Matskevich 2003).[2]

Area D2 is adjacent to the southern harbor. The first clear architecture (D2/13), founded on bedrock, comprises the remains of a large rubble structure,

[2]The main differences between Matskevich's recent M.A. thesis and the preliminary publications, as they pertain to questions discussed herein, are as follows (cf. Matskevich 2003: 60, 70–72): (a) The architectural break following the fiery destruction of Phase 12 is not as complete as once thought. Phase 11 living surfaces do reach the (stubs of) Phase 12 walls. (b) She proposes that whereas the Iron Age I at Dor was probably fortified, the town was unwalled during at least parts of the Iron Age IIA—the opposite of previously held views. (c) Phase 9 can be stratigraphically split to early (9b) and later (9a) subphases. The typological horizon reflected in Phase 9a is the one we label herein as "Ir1l2," whereas 9b is slightly earlier (Ir1b). Previous publications referencing Phase B1/9 (e.g., Gilboa 1989;1998; 1999b) should be read as referring to Phase 9a only.

which was destroyed, then rebuilt on the same lines (D2/12), and destroyed again. Phase D2/11 is a poorly preserved context of unclear nature. Phases D2/10–9 are characterized by the construction of three large public structures: two built with massive limestone boulders, and the third a mudbrick building comprising long, narrow halls, probably a warehouse. The two stone constructions continued to be used in the following phase (D2/8), but the mudbrick structure was covered over, its space taken by a fieldstone building on the north and a courtyard on the south. These are rebuilt several times in Phases 8c and 8b. Phase 8a dates well into the Iron Age II and will not be considered here. The use of both large stone structures on either side of this latter building also persist (with structural changes) well into the Iron II period.

A general overview of the early Iron Age stratigraphy at Dor thus raises the following points. The stratigraphy of Areas G and B1 can be correlated via the destruction level (end of Phase 12 in B1 = end of 9 in G). On typological grounds, it is likely that the first of the two destructions of the rubble building in D2 (D2/13) correlates with those. Thus Iron Age I strata can be clustered into predestruction and postdestruction. The former group is further subdivided into three stratigraphical/typological horizons (for an explication of the terminology employed, see below): a transitional LB|Ir1 horizon (the upper layers of G/11); an early Ir1a horizon (mainly G/10 and perhaps B1/13); and a late Ir1a horizon—the burned town (B1/12 and perhaps also 13; G/9 and possibly D2/13). Postdestruction strata can be subdivided under four categories: (1) an intermediate horizon, Ir1a|b (defined in D2/12, probably to be correlated with G/8, B1/11, and possibly also B1/10); (2) the "real" postdestruction town, Ir1b (B1/9b [possibly also B1/10], G/7, D2/11–9); (3) another "transitional," but stratigraphically and typologically well-defined horizon (Ir1|2–B1/9a, D2/8c, G/6b); and (4) an Ir2a horizon (B1/8, G/6a, D2/8b). In several places Ir1|2 assemblages were uncovered in situ on floors, indicating some sort of trauma; however, activities following these are usually signified by nothing more than the raising of floors.

Typology and Ceramic Sequence

We have already noted above that, following Aharoni and Amiran's (1958) definition of the Iron Age I as a culturally distinct component, no subdivision of that complex has won general approval. All of the proposed subdivisions (cf. Mazar 1990: 295–96) bypass relative chronology in favor of absolute dates based on historical considerations. With the exception of the aforementioned seriations of the Philistine decorated wares, they do not establish explicitly any firm ceramic (or other) criteria for differentiation between early and late Iron Age I. None of them fits the horizons established at Dor, nor, in our opinion, at other Phoenician/"late Canaanite" sites. We therefore propose here a new subdivision for these latter regions. In order to avoid possible confusion with other nomenclatures, we have labeled our horizons differently, using the determinative "Ir" (rather than IR or IRA); then an Arabic numeral for the major subdivision of the age; and a lowercase letter for finer divisions—e.g., Ir1a rather than IR IA. We have also used the symbol | to denote "transition"; and "early" or "late" within a horizon may be denoted by a suffix (*e*) or (*l*). While the general designation Ir1 does fit the generally established cultural component called Iron Age I by most investigators (but note the transitional Ir1|2, and see more on this horizon below), the subdivisions do not conform to any previous nomenclature. For instance, Mazar's (1990: 296) Iron Age IA parallels, if anything, our LB|Ir1, and thus all the rest of our Ir1 subdivisions fall within his Iron Age IB. Note also that unlike most periodization schemes, the one we propose is intentionally open-ended, continuous, and nondeterminative. It is meant to seriate assemblages and not to agglomerate them. We also eschew any historical, much less cultural or ethnic, correlations to our period designations (in fact, we shall stress below the cultural continuity throughout these different periods; see also Sharon and Gilboa in press). The chronological horizons defined here should be understood as no more than heuristic devices, intended to facilitate the determination of diachronic intrasite changes and intersite correlations. To a large extent they replace the definition and numbering of "strata," a definition which at a continuously inhabited site like Dor would be too rigid and highly misleading. To be sure, they are dependent to a meaningful extent on events, building schemes, and the like of very localized nature. We do not expect that they will be easily applicable to other sites, especially to those that offer a less detailed early Iron Age stratigraphy, but this does not undermine the chronological usefulness of the sequence.

The pottery presented in figures 2–13 purports to serve only the chronological ends pursued here—none of its other cultural implications are discussed. This presentation is not meant to and cannot presume

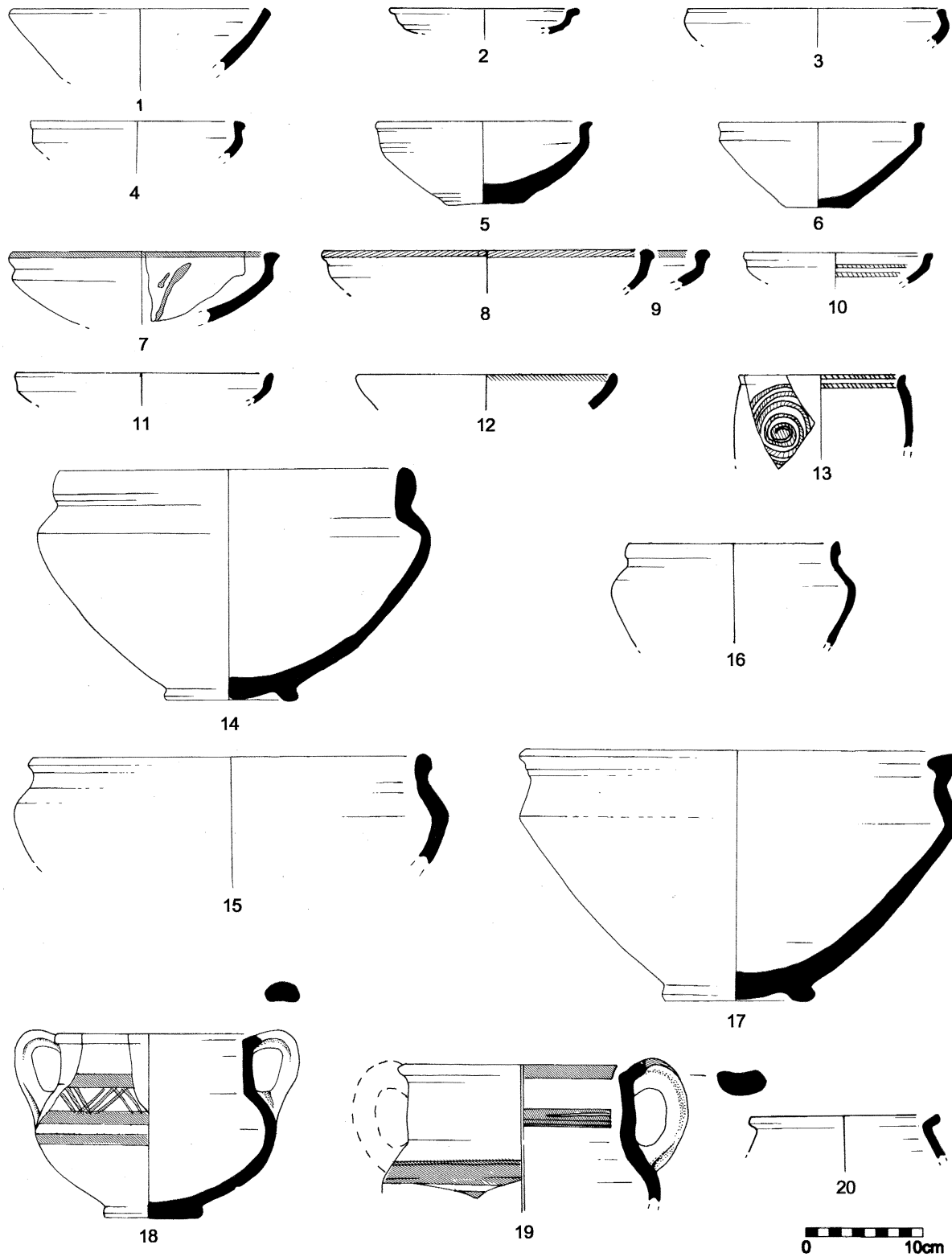


Fig. 2. Dor: Selected pottery of the Ir1a (*l*) horizon. *1, 2:* unclassified; *3:* BL25; *4:* BL22; *5–9:* BL23; *10, 11:* BL24; *12:* unclassified; *13:* BL1; *14, 15:* KR21; *16:* KR20: *17:* KR2; *18–20:* KR1.

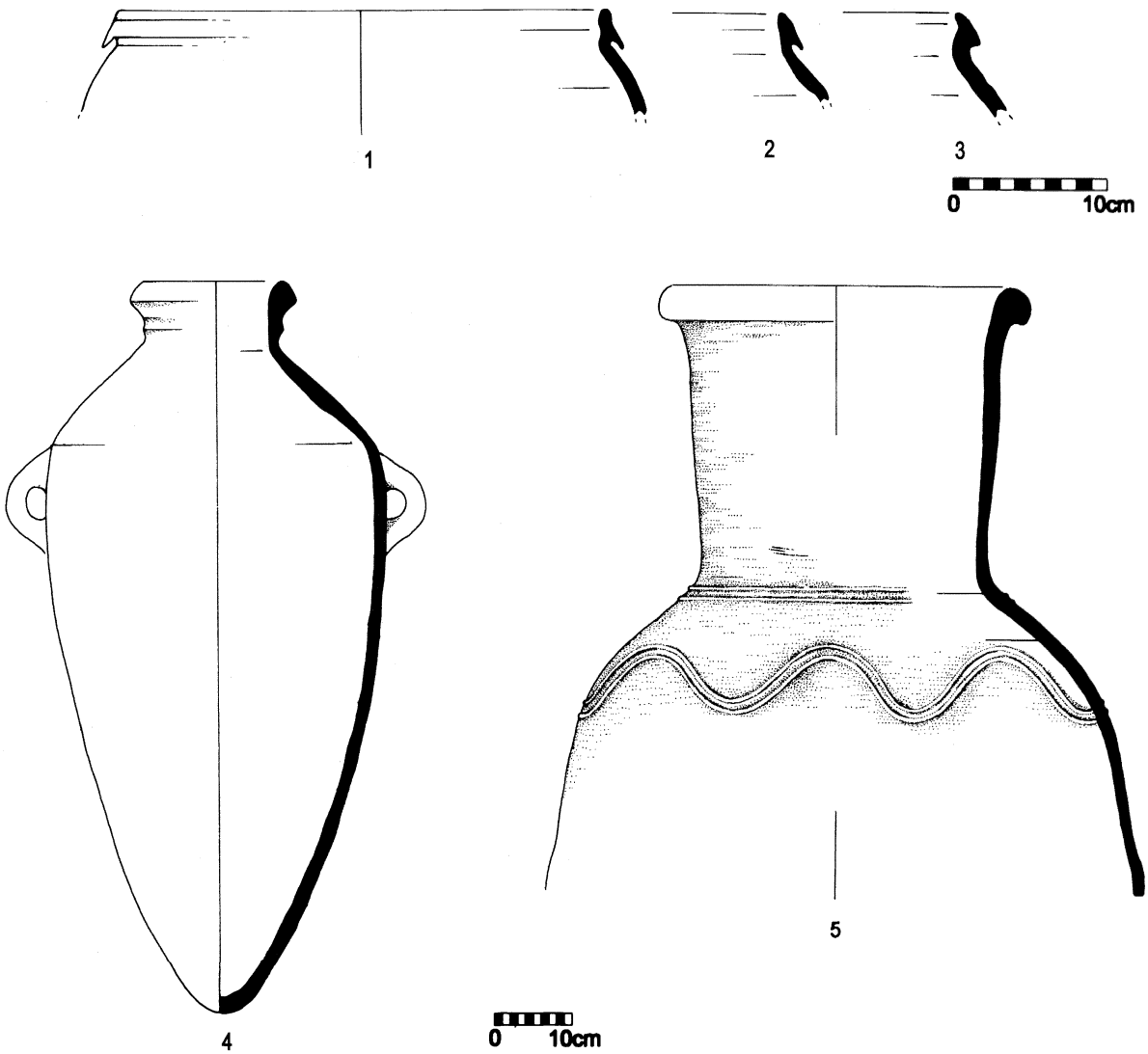


Fig. 3. Dor: Selected pottery of the Ir1a (*l*) horizon (cont.). *1, 2:* CP14; *3:* CP11; *4:* PT1; *5:* PT2.

to replace a full exposition, possible only in the framework of a final excavation report (for a full presentation of key contexts of the sequence, see provisionally Gilboa 2001b). But the underlying premise for this work is that we cannot postpone all chronological discussions until all relevant excavations are published in final form.

Not all the early Iron Age horizons defined above are represented here. Criteria for inclusion of contexts in the pottery plates (gray cells in table 1) were (1) to exclude pottery from contexts whose stratigraphy and/or typological attribution is still insecure (phases followed above and in the tables by a question mark); and (2) to include only the contexts sampled for radiometric dating. This means that the transitional LB|Ir and the early Ir1a phases are missing in the illustrations (for a more detailed discussion of the LB|Ir Age transition at Dor, see Sharon and Gilboa in press). The ceramic horizons not presented here are described only verbally. Still, for the Ir1a|b horizon, which also lacks radiometric dates at present, we illustrated one class of vessels—bowls (fig. 6)—as they constitute an important typological link between those of the Ir1a horizon preceding them and those of the subsequent Ir1b and Ir2a horizons. The LB|Ir, early Ir1a, and Ir1a|b horizons at Dor are known as yet from restricted assemblages only, and data pertaining to them should be regarded as preliminary.

TABLE 1. Correlation between Stratigraphical/Typological Horizons of Areas B1, D2, and G at Dor

Horizon	*Area G (Phase)*	*Area D2 (Phase)*	*Area B1 (Phase)*	*Pottery*
Late Bronze	12 and most of 11	Missing	Missing?	
LBIIr	Upper surfaces of 11?	Missing	14?	
Early Ir1a	10	Missing?	13?	
Late Ir1a	9	13?	12	figs. 2–5
Ir1a|b	8?	12	11?, 10?	fig. 6; bowls only
Ir1b	7	11? 10, 9	10?, 9b	figs. 7–9
Ir 1|2	6b	8c	9a	figs. 10, 11
Ir2a	6a	8b	8	figs. 12, 13

Note: Dark gray cells indicate contexts, the pottery of which is illustrated in figs. 2–13. Light gray cell indicates that the phase was only partially illustrated.

The types illustrated are mostly the more temporally sensitive ones and thus do not represent the entire ceramic repertoire of early Iron Age Dor (though they do provide a fair idea regarding the composition of the assemblages). For instance, Egyptian pottery (e.g., Stern 2000a: fig. 250), present in nearly every horizon, has entirely been omitted; and jugs and lamps—poor tools for chronological purposes in the range under question—are underrepresented. Type numbers are cited from Gilboa 2001b, where further subdivisions into subtypes have been determined.

General Trends in the Evolution of the Ceramic Assemblage

The temporal changes within the Dor assemblage are for the most part both quantitatively gradual and morphologically evolutionary. Pottery types are rarely confined to one chronological horizon, and vessel types appear, disappear, and change at different rates and at different times. This fuzziness in distribution is exacerbated in potsherd assemblages by residual artifacts and by (rare, we hope) intrusions. We have tried to rely on primary assemblages wherever possible, though even with these, postdepositional (or, rather post-use) effects cannot be neutralized. Tables 2–9 show the distribution of indicative types over time. Though the assessments are not quite quantitative (not all of the assemblages had been counted at this point, nor, indeed, finally assigned to phases), most types do exhibit the classic battleship curve despite the difficulties alluded to above.

Not only do new types rarely appear abruptly, but many have gradually evolved from earlier types; figures 14–17 show this morphological development in some of the diagnostic classes. On the one hand, this adds to the difficulty of the typological analysis. In some of the gray areas it is, indeed, difficult to assign some potsherds unambiguously to a type. On the other hand, it adds some important information—namely, the continuity of potting traditions throughout the period—a point we shall return to later.

The evolution of most pottery types seems to be from the (relatively) more elaborately shaped to the simple. This is best exemplified by the carinated bowls (fig. 14): the sharply tooled shapes of the early Ir1a (fig. 2:4) give way to similar but more rounded contours (fig. 2:5–9). These become even more cursorily shaped during Ir1a|b (fig. 6: 6–15) and finally end up as simple carinated bowls with plain sides and hardly any rim treatment, which remain dominant until Ir2a (figs. 7:4–11; 10:1–6; 12:1–4, 6). Other examples include the dipper juglets (fig. 16), which change from elegantly executed with pointed bases (fig. 5:1) to less meticulous (fig. 8:24) to the badly proportioned (fig. 11:12, 13) and then to bag-shaped (fig. 13:8). The cooking pots provide another case in point (fig. 15): the elegant, meticulously shaped rims of the late Ir1a and Ir1a|b (fig. 3:1–3) gradually evolve into rims that are less so (fig. 8:1–8) and then, in Ir1|2, into crude heavy rims (fig. 10:16–21). The kraters, too, gradually shift from those having relatively carefully shaped rims like those of figure 2:17–20 to kraters with simply shaped rims (e.g., fig. 10:11–15).

Concomitantly, there is also a simplification of the entire repertoire. The pottery assemblage, not particularly variegated to begin with, is reduced with time to an even smaller assortment of "types," the process reaching its climax in Ir1|2.

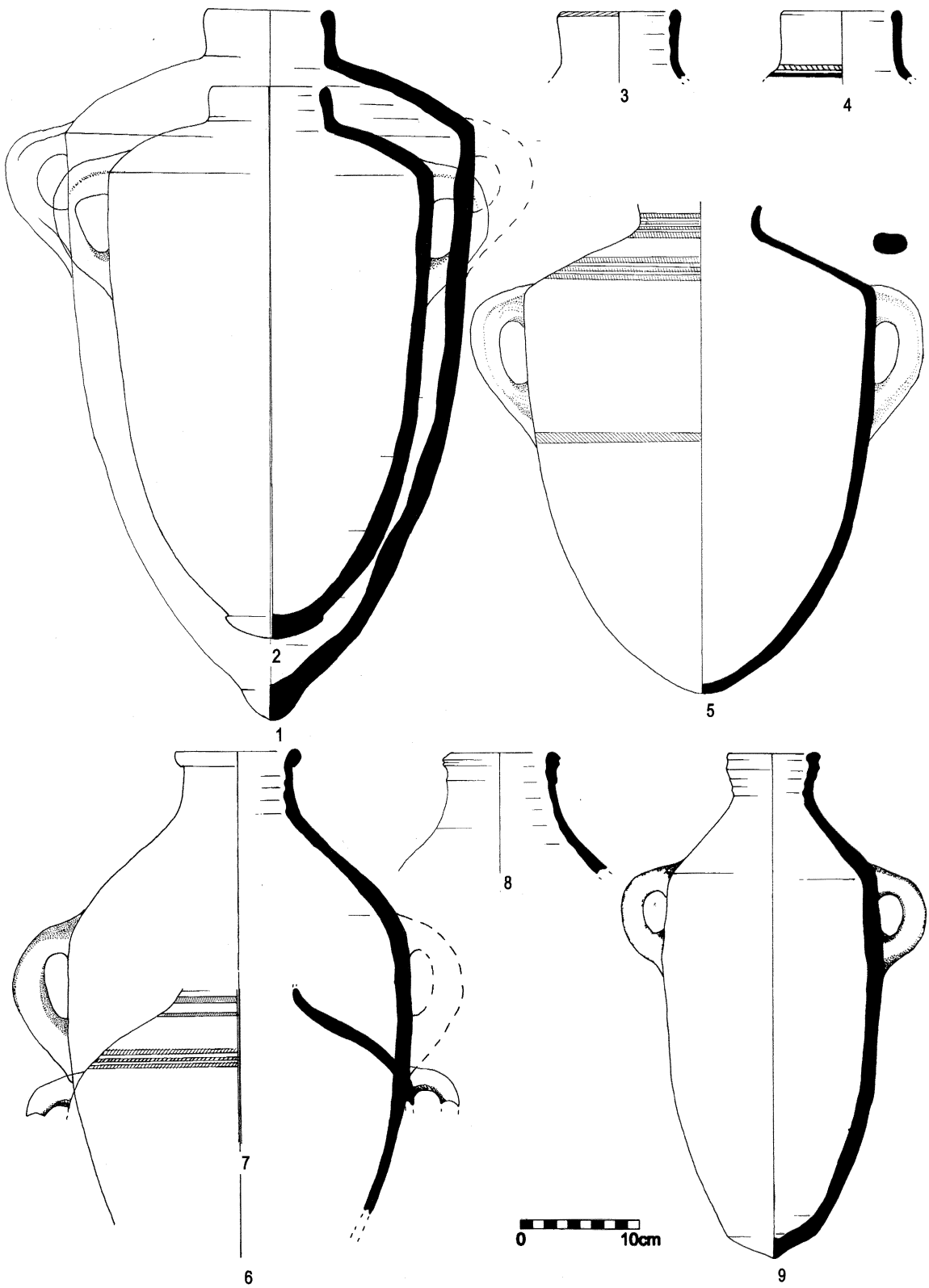


Fig. 4. Dor: Selected pottery of the Ir1a (*l*) horizon (cont.). *1:* SJ4; *2, 5:* SJ5; *3, 4:* SJ4/5; *6–8:* SJ3; *9:* SJ1.

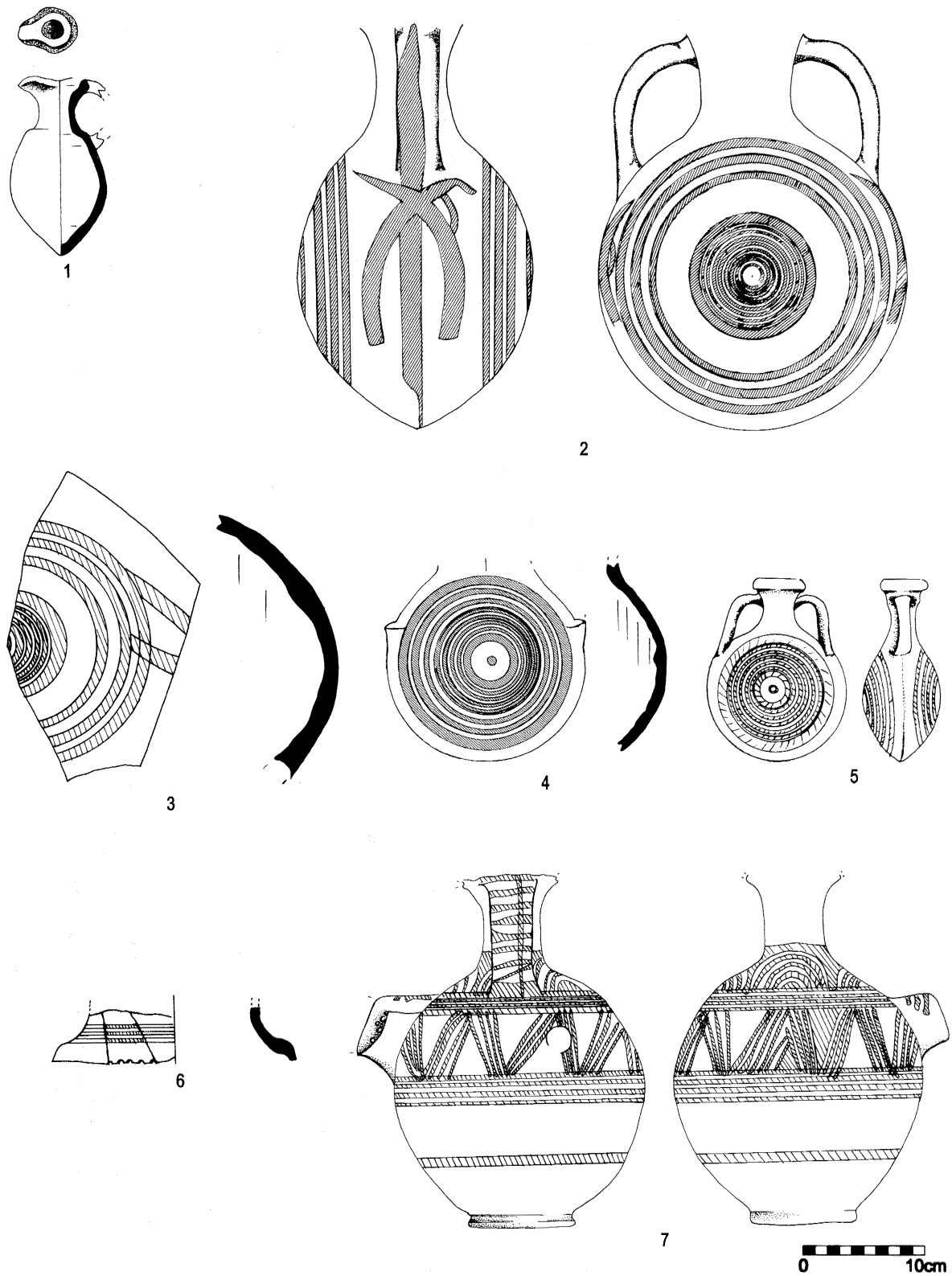


Fig. 5. Dor: Selected pottery of the Ir1a (*l*) horizon (cont.). *1:* DJ1; *2, 3:* FL1; *4, 5:* FL2; *6:* PJ21; *7:* unclassified.

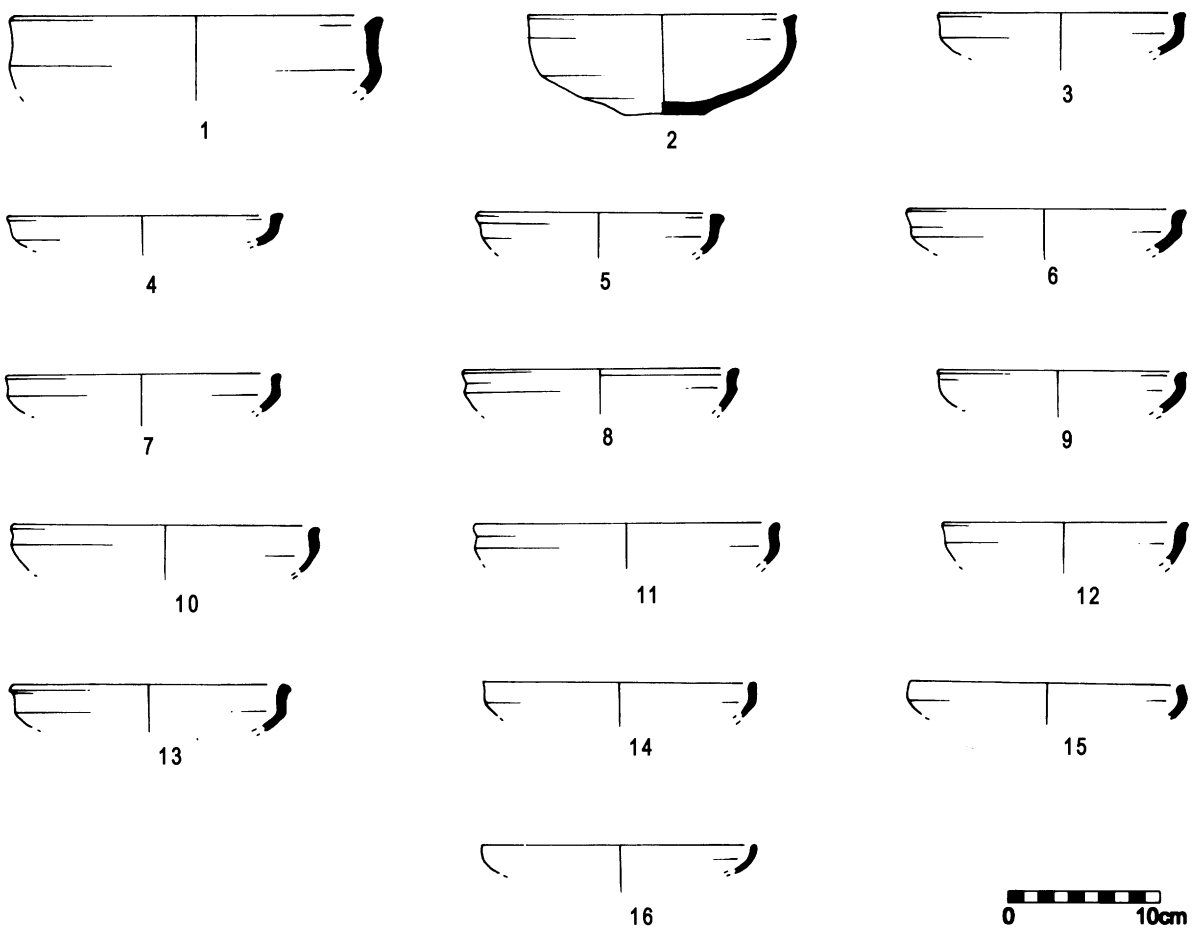


Fig. 6. Dor: Selected bowls of the Ir1a|b horizon. *1:* unclassified; *2:* BL22; *3–14:* BL24; *15:* BL25; *16:* BL31.

As regards ornamentation, the Ir1a, and even more so the Ir1a|b horizons, constitute a distant echo of the Late Bronze Age. A minority of the bowls is decorated, and even then only with a red band or striations in one or two colors on the rim (fig. 2:7–10). Some of the jars are painted with red or red-and-black horizontal bands, in Bronze Age tradition (fig. 4:4, 5, 7). The only vessels systematically painted (see below) are the flasks, large and small, and the strainer jugs (fig. 5:2–6). Household vessels, including all tableware, remain undecorated during Ir1b, with very few exceptions. On the other hand, a genuine decorative outburst is evident on jugs/flasks and strainer jugs, the forms to which the Monochrome and Bichrome decoration is most usually applied (see below). The reason is that they were intended to serve specific economic and other ends (Gilboa 1999a).

By the Ir1|2, decorations are even scarcer than before on most of the repertoire, again excluding jugs and strainer jugs. The painting of jars has totally been abandoned and hardly any bowls are decorated. Very rare specimens of red slip and burnish occur (fig. 10:8, 9).

Ir2a seems to have started a new era. Both open and closed vessels (though still not many) are now red-slipped and burnished (figs. 12:6–9, 11; 13:5), and Bichrome decoration proliferates to vessels other than small containers (figs. 12:5, 13:4).

The decorative designs, when they do occur, are extremely simple. Other than the prolific concentric bands, there are only net patterns and very simple linear, mainly diagonal, designs. The characteristic Late Bronze Age panel configurations have disappeared, and there are hardly any floral motifs, not to mention animal or human depictions.

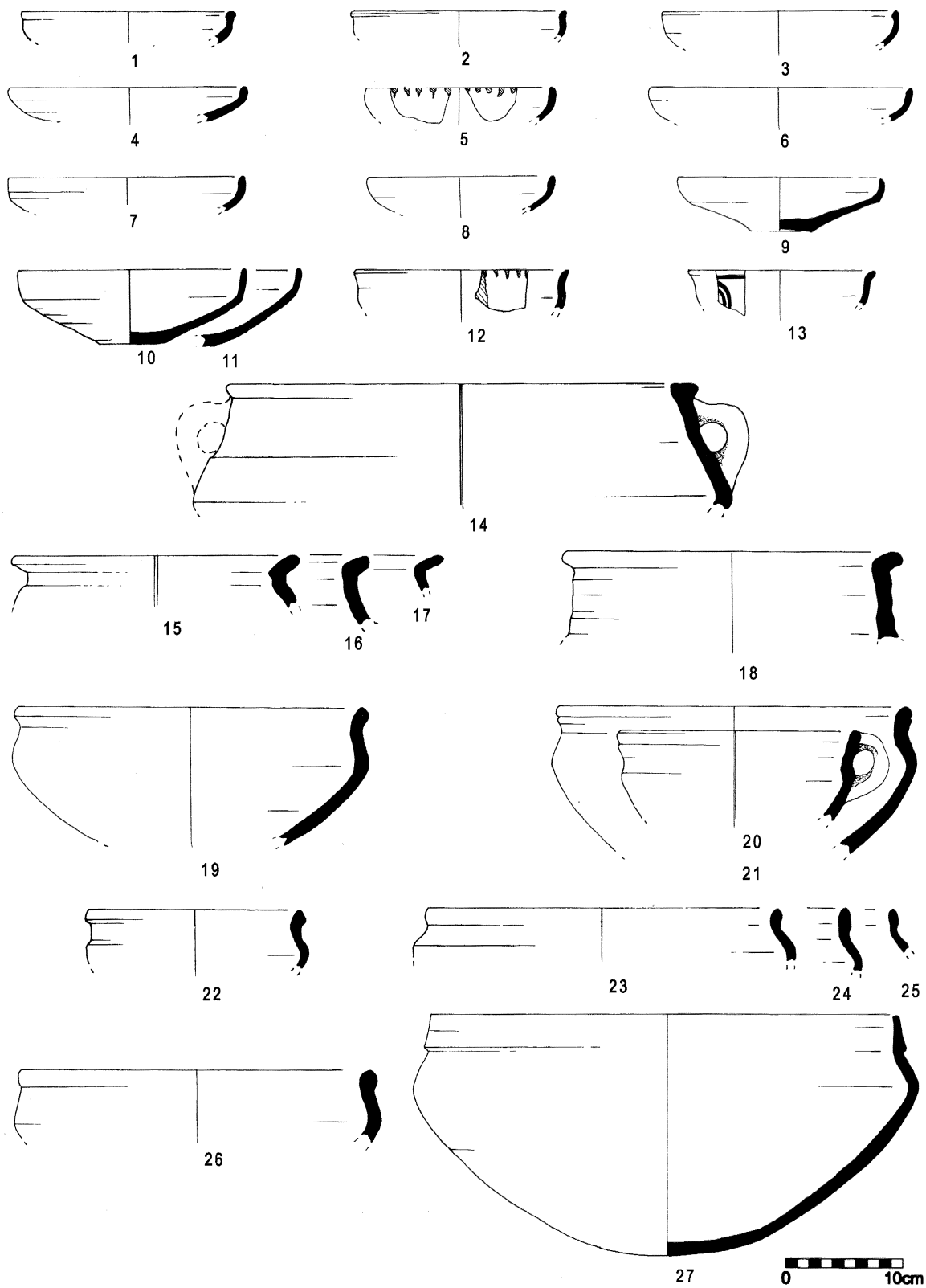


Fig. 7. Dor: Selected pottery of the Ir1b horizon. *1:* BL23; *2:* BL24; *3:* BL25; *4:* BL31; *5–11:* BL33; *12, 13:* BL1; *14:* unclassified; *15–18:* KR1; *19–21:* KR13; *22:* KR20; *23–26:* KR21; *27:* CP7.

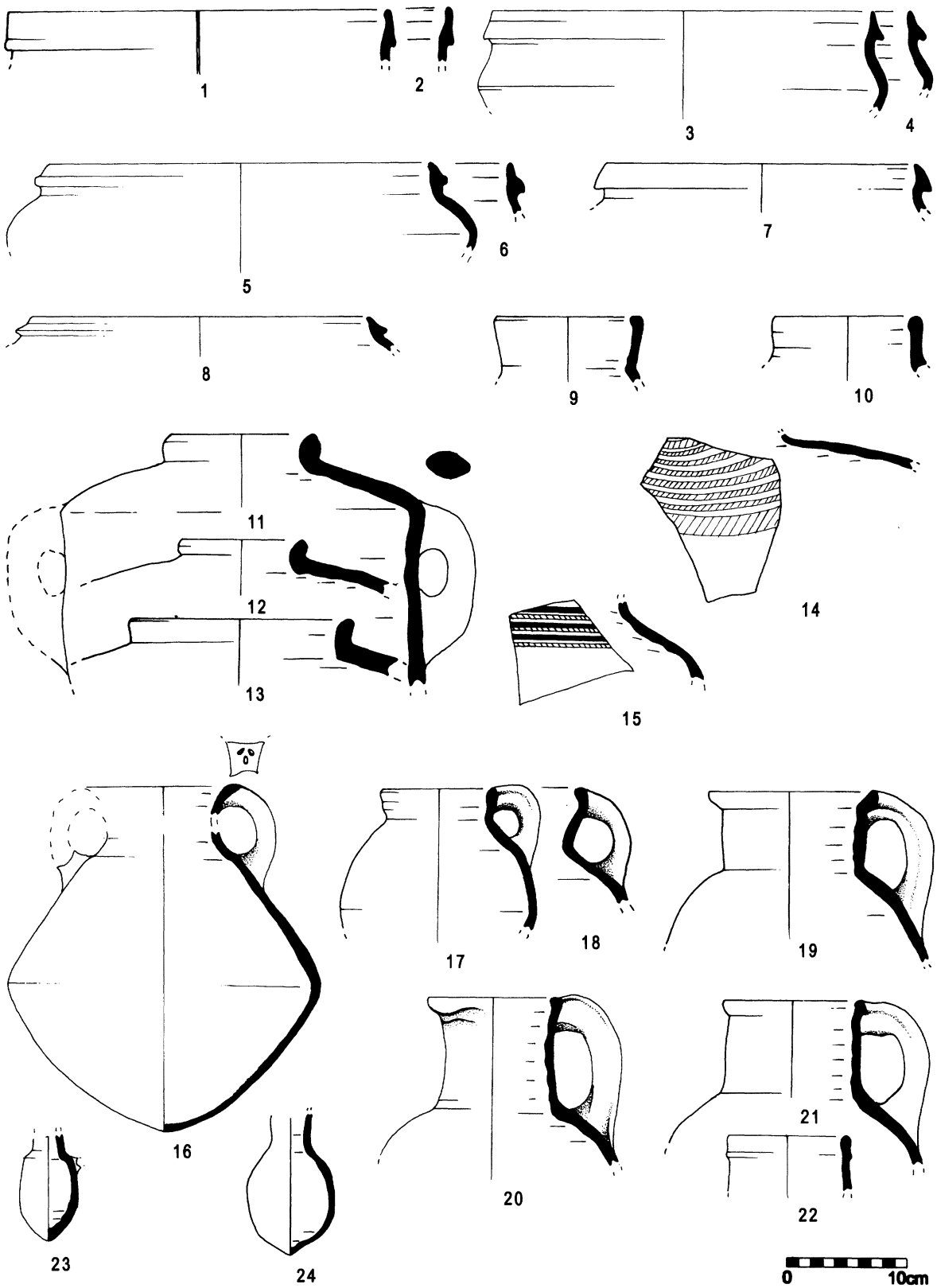


Fig. 8. Dor: Selected pottery of the Ir1b horizon (cont.). *1, 2:* CP7; *3, 4:* CP8; *5, 6, 8:* CP12; *7:* CP11; *9, 10, 14:* SJ4/5; *11–13:* SJ6; *15:* SJ3; *16:* JG5; *17:* JG7; *18:* JG6; *19–22:* JG2; *23:* DJ1; *24:* DJ2.

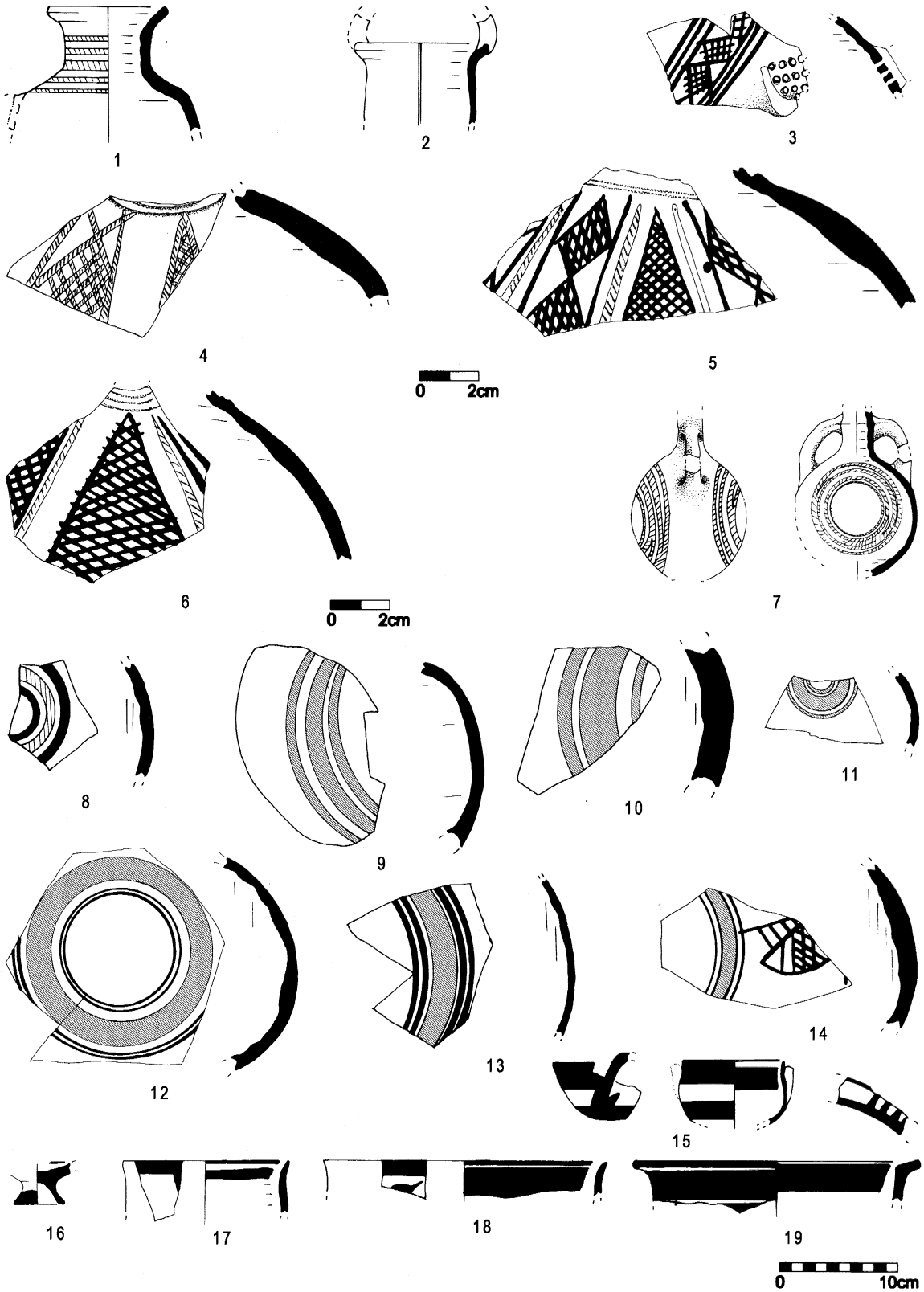


Fig. 9. Dor: Selected pottery of the Ir1b horizon (cont.). *1:* PJ21; *2:* PJ20; *3:* PJ24; *4:* PJ23; *5, 6:* PJ30; *7, 9:* PJ3; *8:* PJ6; *10, 11:* PJ4; *12–14:* PJ11/12; *15–19:* Cypriot WP.

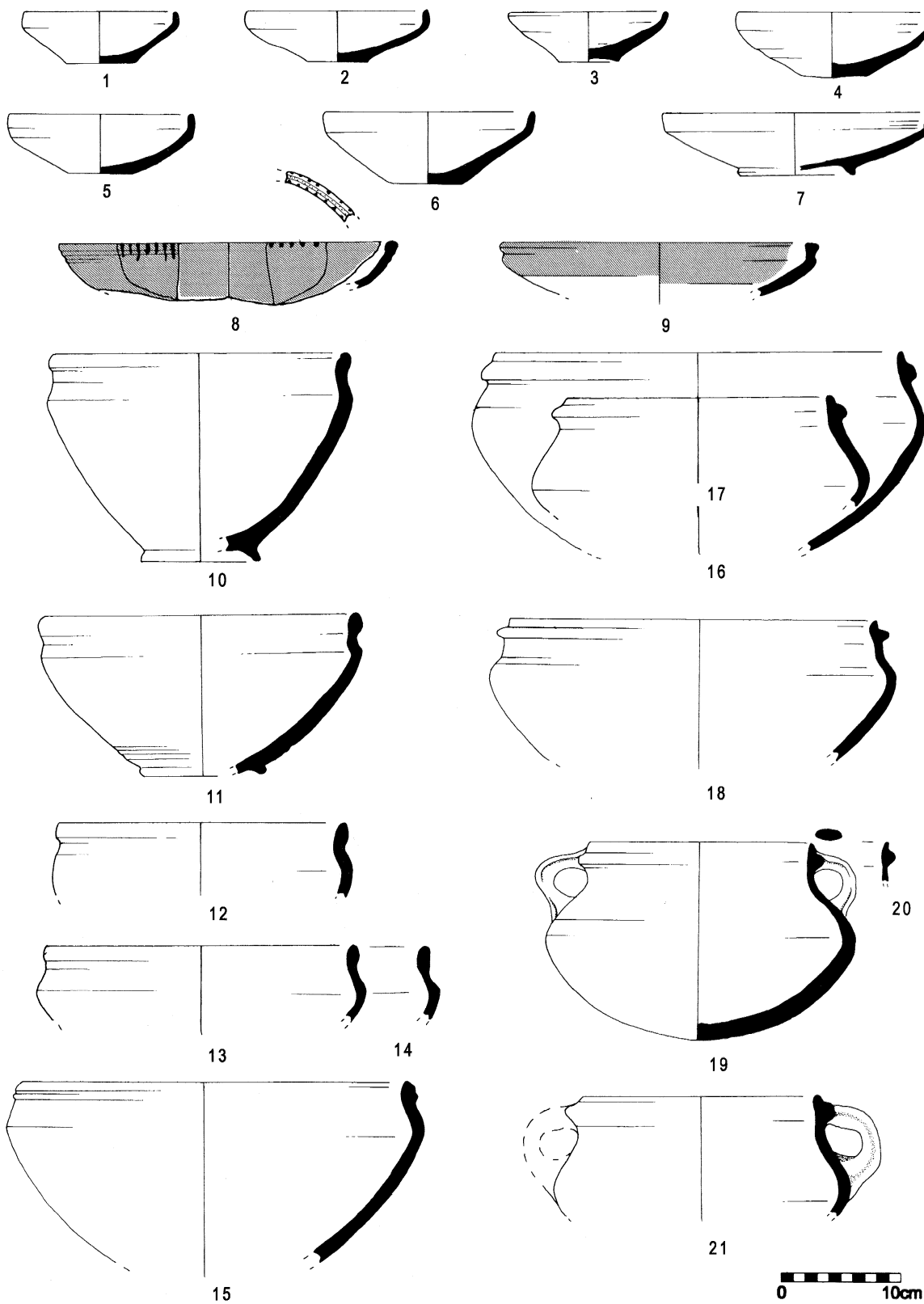


Fig. 10. Dor: Selected pottery of the Ir1|2 horizon. *1–6:* BL33; *7:* BL34; *8, 9:* BL20; *10:* KR13; *11–15:* KR21; *16, 17, 21:* CP21; *18–20:* CP22.

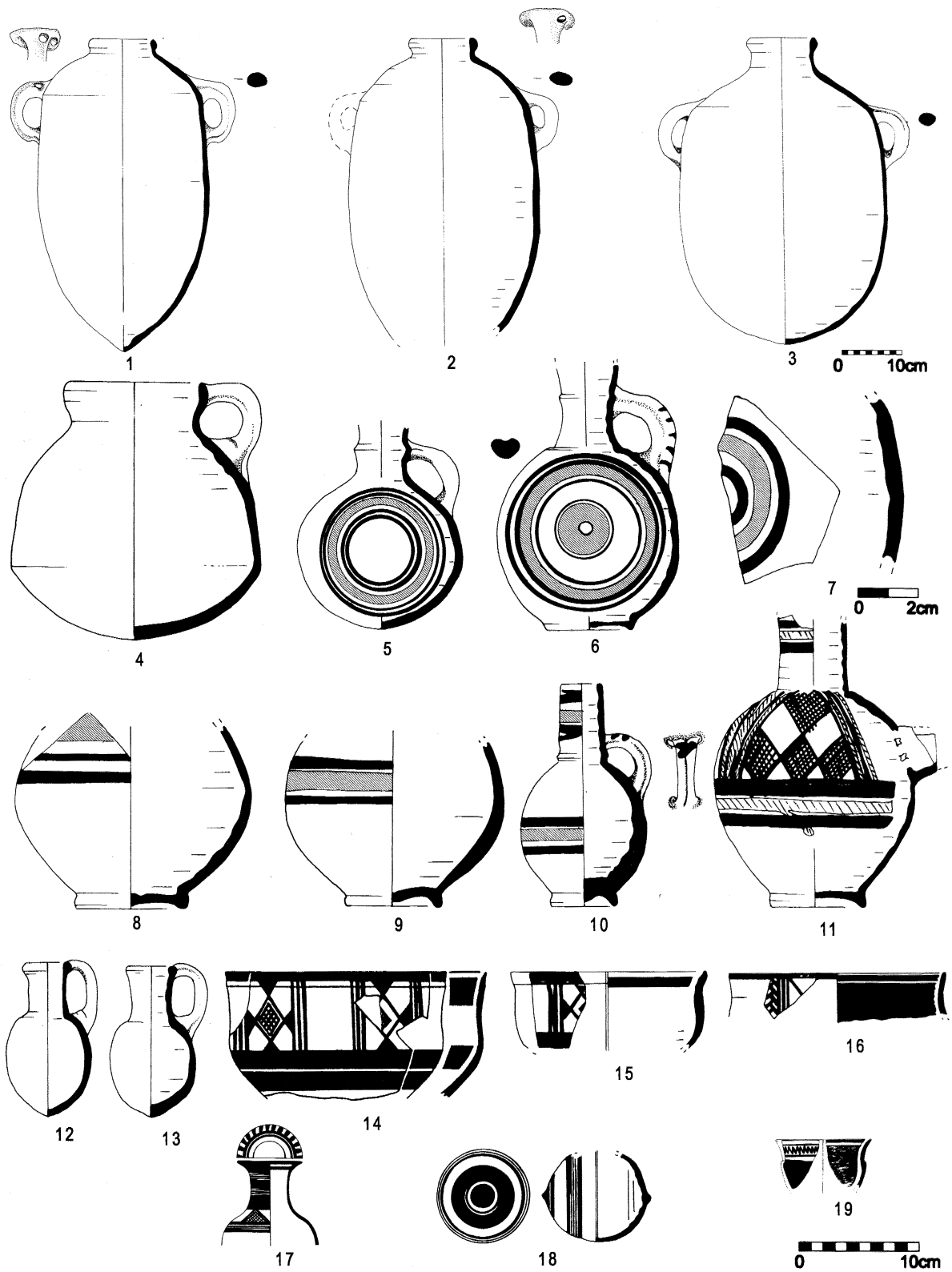


Fig. 11. Dor: Selected pottery of the Ir1|2 horizon (cont.). *1, 2:* SJ10; *3:* SJ12; *4:* JG6; *5:* PJ12; *6:* PJ14; *7:* PJ12/14; *8, 9:* PJ15; *10:* PJ16; *11*: PJ30; *12, 13:* DJ3; *14–18:* Cypriot WP; *19:* Euboean PG.

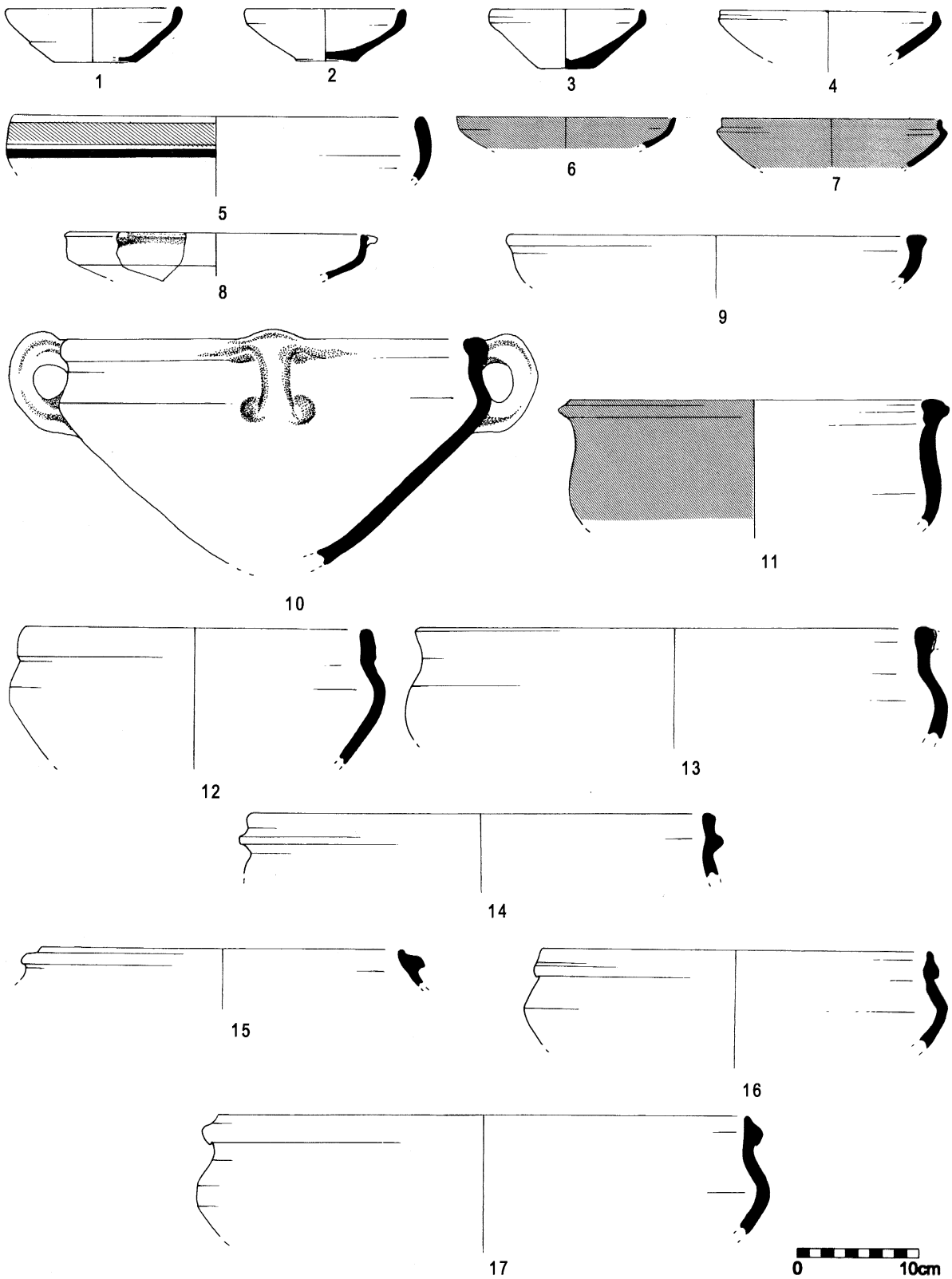


Fig. 12. Dor: Selected pottery of the Ir2a horizon. *1–4:* BL33; *5:* BL12; *6:* BL32; *7, 8:* unclassified; *9:* BL20; *10:* KR22; *11:* unclassified; *12, 13:* KR21; *14:* CP20; *15–17:* CP22.

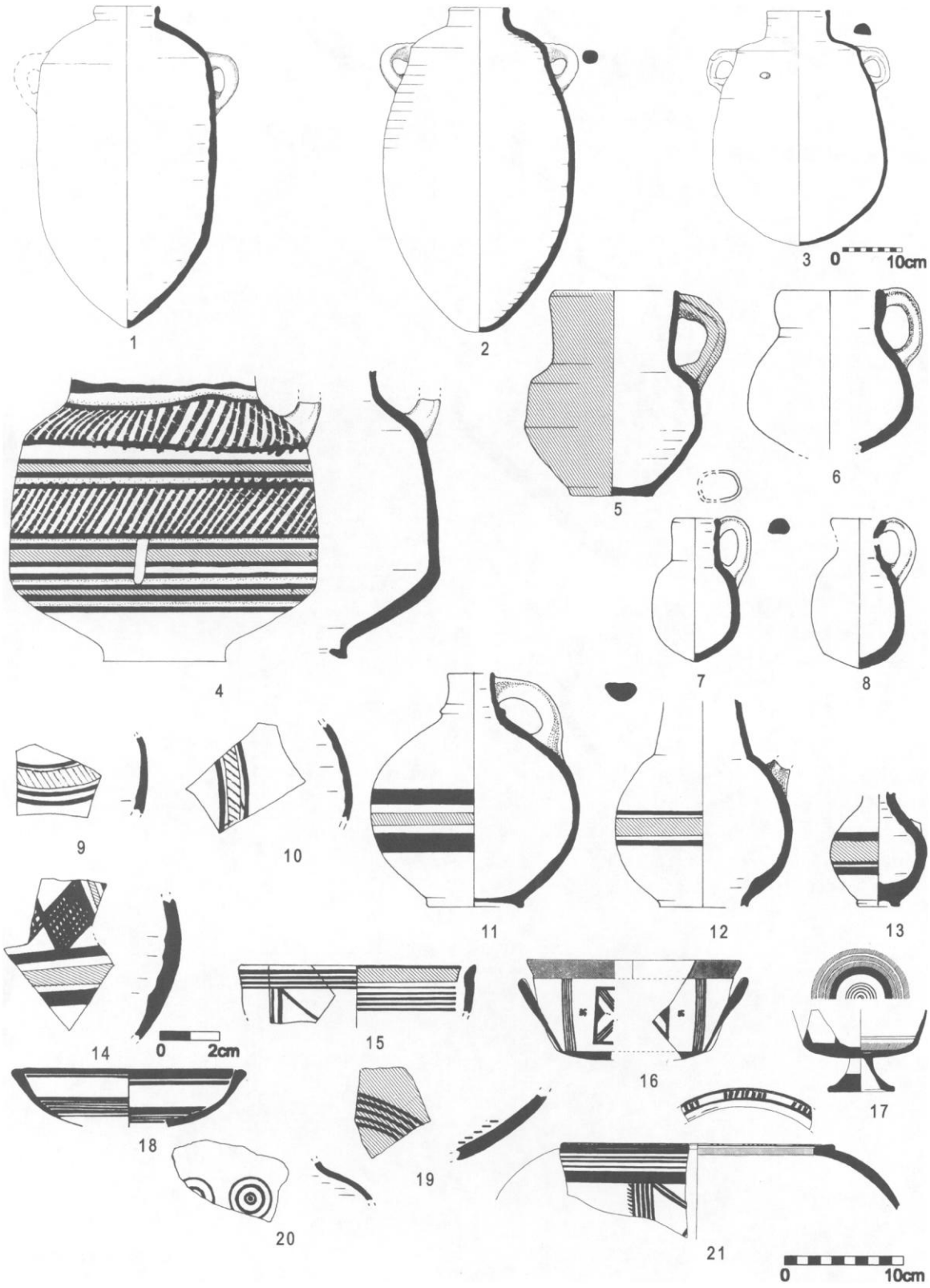


Fig. 13. Dor: Selected pottery of the Ir2a horizon (cont.). *1:* SJ10; *2–5:* unclassified; *6:* JG8; *7:* DJ3; *8:* DJ4; *9, 10:* PJ12/14; *11, 12:* PJ15; *13:* PJ16; *14:* PJ30; *15–17, 21:* Cypriot Bichrome; *18–20:* Cypriot BoR.

TABLE 2. Temporal Distribution of Main Bowl Types in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1a|b*	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
—	Present (fig. 2:1, 2, 12)	*Rare*	*Very rare*	—	—	Typology not defined yet; medley of rounded bowls and shallow bowls with ledge rims of clear Bronze Age tradition.
BL 1	*Rare* (fig. 2:13)	*Rare*	*Rare* (fig. 7:12, 13)	—	—	Bell-shaped bowls, or skyphoi. One of the few open vessels usually painted, either with an inner red band or striations on the lip, sometimes with spirals.
BL 22	Present (fig. 2:4)	??	*Very rare*	—	—	Carinated bowls with flat bases, short upper walls, and sharply thickened accentuated rims, projecting in and out or outward only.
BL 23	**Dominant** (fig. 2:5–9)	Present	*Very rare* (fig. 7:1)	—	—	Later, cruder variants of BL 22. Less sharply shaped carination and rim. Many have red bands on their rims and some have red or black or two-colored striations.
BL 24	Present (fig. 2:10, 11)	**Prolific** (fig. 6:3–14)	*Rare* (fig. 7:2)	—	—	More delicate variations of BL 23; thinner, with thinner rims. The rim is very close to the carination point, elongated, rounded at its top and outturned. Rarely painted with red band on the rim or concentric bands.
BL 25	*Rare* (fig. 2:3)	Present (fig. 6:15)	*Rare* (fig. 7:3)	*Very rare*	—	Carinated bowls with incurving upper walls and slightly thickened rounded rims.
BL 31	*Rare*	*Rare* (fig. 6:16)	Present (fig. 7:4)	*Very rare*	*Very rare*	Simple carinated bowls with very short, upright, sometimes incurved simple rims; precursors of BL 33.
BL 33	*Rare*	*Rare*	**Dominant** (fig. 7:5–11)	**Nearly exclusive** (fig. 10:1–6)	**Dominant** (fig. 12:1–4)	Simple, shallow carinated bowls with flat bases, short, vertical upper walls, and hardly any rim treatment. Very rarely decorated. As from Ir2a: many of the short upright rims are even shorter and triangular. Occasionally red-slipped.
BL 34	—	??	*Very rare*	*Rare* (fig. 10:7)	*Rare*	Fine-ware bowls. Morphologically resembling BL 31, BL 32, BL 33, but delicate, burnished, and with ring bases.
BL 20	—	??	—	*Rare* (fig. 10:8, 9)	*Rare* (fig. 12:9)	Broad category. Shallow, rounded, or carinated bowls, with carefully shaped rims and occasionally red-burnished slip.
—	—	—	—	*Rare* (Gilboa 1989: fig. 1:21)	Present (fig. 12:5; BL 12)	Bowls with Phoenician Bichrome decoration. Early types are open, shallow, with inner decoration; as from Ir2a, also deep rounded bowls with incurved upper walls and external decoration.

As mentioned, the most notable exceptions to this trend are the famed Phoenician Bichrome ware and the group dubbed at Dor "Phoenician Monochrome" (see below)—a variety of new decorative techniques and designs which clearly spring to life in the Ir1b, partially proliferating in the Ir1|2, and persisting into the Ir2a (see below). This, however, involves only very specific types of small containers (flasks, jugs, and strainer jugs; cf. fig. 17). The Phoenician Bichrome and Monochrome were discussed in detail in Gilboa 1999a, and we have little to add to this analysis at the present time, other than new examples of Phoenician Monochrome that have been uncovered since (e.g., fig. 9:10, 11). Some misunderstanding, however, has arisen regarding the use of the term "Monochrome." It has been claimed that there are

TABLE 3. Temporal Distribution of Main Krater Types in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
KR 1	Present (fig. 2:18–20)	Present (fig. 7:15–18)	—	—	Amphoroid kraters with ledge rims, often decorated with simple linear motifs in red. For fig. 1:18, see text.
KR 2	Present (fig. 2:17)	Present	*Very rare*	—	Kraters with carefully molded, hammer-shaped rims.
KR 13	??	**Abundant** (fig. 7:19–21)	Present (fig. 10:10)	—	Open, slightly carinated kraters with ring bases, high carination, flaring upper walls, and simple rims.
KR 21	**Common** (fig. 2:14, 15)	**Abundant** (fig. 7:23–26)	**Dominant** (fig. 10:11–15)	**Dominant** (fig. 12:12, 13)	Open, gently carinated kraters with ring base, high carination, and numerous variants of folded, thickened rims (Gilboa 2001b: pls. 5.VI, 5.VII). From Ir1|2 most rims are from less carefully shaped varieties, and two or four handles occasionally appear.
KR 20	Present (fig. 2:16)	Present (fig. 7:22)	*Very rare*	—	Morphologically similar to the above, but more delicate.
KR 22	—	—	*Rare*	Present (fig. 12:10)	Kraters with concave upper walls and rounded, thickened inturned rims, usually with two or four handles.
	—	—	??	*Rare* (fig. 12:11)	Broad category. Various red-slipped kraters of different shapes, with carefully molded rims.

TABLE 4. Temporal Distribution of Main Cooking Pot Types in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
CP 7	??	Present (figs. 7:27; 8:1, 2)	??	—	Open pots with nearly vertical, elongated, relatively delicate rims. No handles attested.
CP 11	**Prolific** (fig. 3:3)	Present (fig. 8:7)	*Very rare*	*Very rare*	Open pot with upper convex walls; rim is elegantly shaped—convex outside, with a marked inner concavity. No handles attested.
CP 14	**Prolific** (fig. 3:1, 2)	??	—	—	Similar to CP 11, but rims are more delicate, longer and overhanging, with a sharp point. No handles attested.
CP 8	??	**Prolific** (fig. 8:3, 4)	*Rare*	*Rare*	Open pot with short, nearly vertical rim, with both inner and outer concavities. No handles attested.
CP 12	??	**Prolific** (fig. 8:5, 6, 8)	*Rare*	—	Pots with upper convex walls, like CP 11, but rims are different: there is a distinct ridge under the rim. No handles attested.
CP 21	—	*Very rare*	**Dominant** (fig. 10:16, 17, 21)	**Frequent**	Rounded, usually small and relatively deep pots with coarse, thick, squat rims, often with a slight inner concavity. The ridge below the rim is coarse, horizontal, with square or triangular section. Nearly always with two handles.
CP 22	—	—	**Dominant** (fig. 10:18–20)	**Frequent** (fig. 12:15–17)	Very similar to CP 21, but the rim is characterized by a marked difference in thickness between the narrow pointed top and the thick squarish ridge. Nearly always with two handles.
CP 16, 17, 20	—	*Extremely rare*	**Frequent** (Gilboa 2001b: CP 16, CP 17, CP 20)	CP 20 present (fig. 12:14)	Other pots with coarse rims.

TABLE 5. Temporal Distribution of Main Storage Jar and Pithos Types in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
SJ 4 SJ 5	**Dominant** (fig. 4:1–5)	Present (fig. 8:9, 10, 14)	*Extremely rare*	??	Straight-shouldered jars with tall cylindrical necks, plain rounded or rims slightly thickened inward, and usually reinforced bases. Some bear painted concentric bands on the rim, shoulder, and body, usually red. Two size categories.
SJ 3	**Prolific** (fig. 4:6–8)	Present (fig. 8:15)	—	—	Pear-shaped jars with a plain, thickened, outturned or ridged rim; thin walls and bases. Occasionally decorated as SJ 4/5.
SJ 1	Present (fig. 4:9)	??	—	??	Small narrow jars with sloping shoulders, a cylindrical, somewhat flaring neck, a ridged rim, and a pointed base. Undecorated.
SJ 6 (rim types JR 8, JR 9)	*Very rare*	**Frequent** (fig. 8:11–13)	*Rare*	??	Compact, neckless, straight-shouldered jars with short rims, either thin, or very thick ones, often with an inner bulge under the rim; sharp carination between the shoulders and the body. Thick walls and bases. No decoration.
SJ 10	—	??	**Nearly exclusive** (fig. 11:1, 2)	**Frequent** (fig. 13:1)	Oblong jar with short vertical neck and rim in and out; undecorated.
SJ 12	—	—	*Rare* (fig. 11:3)	??	Wide bag-shaped jars with tall cylindrical or concave neck, undecorated, of gray brittle fabric.
—	—	—	—	Present (fig. 13:4)	Small "Phoenician Bichrome" decorated jars (Stern 2000a: pl. I:4)
—	—	—	??	Present (fig. 13:2, 3)	Miscellaneous "Iron Age II shapes."
—	Many (Stern 2000a: fig. 250; Gilboa 2001b: pl. 5.8)	Present (Gilboa 2001b: pls. 5.32:23; 5.42:23; 5.47:15)	*Rare or unattested*	*Very rare*	Egyptian jars made of Nile clay.
PT 2	Many (fig. 3:5)	Present (Gilboa 2001b: pls. 5.32:24; 5.42:24)	*Apparently extinct*	—	"Wavy-band" pithoi of Cypriot derivation.
PT 1	Many (fig. 3:4; Gilboa 2001b: pl. 5.9)	Present	*Apparently extinct*	—	"Collared rim" pithoi; all variants.

already too many "Monochromes" and "Bichromes" around, e.g., "Canaanite" Bichrome, Cypriot Bichrome, and especially the Monochrome and Bichrome phases of Philistine pottery (which occupy roughly the same time period but *do not* coincide with our "Monochrome" and "Bichrome"). There are also grounds for confusion as to the position of the Monochrome group vis-à-vis what other people would call "late Canaanite." The following comments should clarify our position.

In coining the term "Phoenician Monochrome" we did not wish to imply that we found at Dor (or anywhere else) a never-before-seen pottery group. Rather, we tried to delineate, within the "late Canaanite" decorative tradition, a specific subgroup, never explicitly discussed before, which can shed light on the transformation of said late Canaanite painted vessels into the "Phoenician Bichrome." We can also pinpoint, at Dor, a very specific time span in which this type of ornamentation was in vogue.

TABLE 6. Temporal Distribution of Main Dipper Juglet Types in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
DJ 1	**Dominant** (fig. 5:1)	Present (fig. 8:23)	—	—	Elongated, narrow, and pointed dipper juglets, in Late Bronze Age tradition.
DJ 2	??	Present (fig. 8:24)	Present	??	Dipper juglets wider than DJ 1, and more rounded, with somewhat pointed bases; most have flaring necks.
DJ 3	—	??	**Dominant** (fig. 11:12, 13)	Present (fig. 13:7)	Dipper juglets wider and shorter than the above types, with angular, "boxy" shapes. Necks are relatively wide and vertical.
DJ 4	—	—	Present	**Many** (fig. 13:8)	Oval dipper juglets with nearly totally rounded bases.

TABLE 7. Temporal Distribution of Selected Jug Types (excluding Strainer Jugs) in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
JG 2	Present	**Abundant** (fig. 8:19–22)	Present	Present	Rounded ring-based jugs with cylindrical or conical necks and with numerous variations in rim shapes (see Gilboa 2001b: JG 2).
JG 6, JG 7, JG 8	??	**Abundant** (fig. 8:17, 18)	**Abundant** (fig. 11:4)	Present (fig. 13:6)	Rounded cooking jugs with one handle, usually a convex neck, and otherwise cylindrical or flaring; of different size categories.
JG 5	??	Present (fig. 8:16)	??	—	Deep, biconical cooking amphorae with rounded bases and two handles.
—	—	—	*Extremely rare*	*Rare* (fig. 13:5)	Red-slipped jugs.

TABLE 8. Temporal Distribution of Strainer Jugs in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
PJ 20 PJ 21 PJ 22	Abundant (fig. 5:6)	Present (fig. 9:1, 2; Gilboa 2001b: pls. 5.36:1–6; 5.38:2–4)	—	—	Wide-mouthed, carinated strainer-spouted jugs with basket handles, usually red-painted with simple linear designs, sometimes alternating red and black.
PJ 23 PJ 24 PJ 25	Unattested	Abundant (fig. 9:3, 4; Gilboa 2001b: pls. 5.36:7–18; 5.37:1–16; 5.38:6–8; 5.45:1–5; 5.48:8–12)	—	—	Long-necked, globular strainer-spouted jugs with long spouts, loop handle perpendicular to spout, elaborate decoration in red, brown, black, or two colors. Many designs are of Cypriot derivation. Jug fig. 5:7 is not included in this category (see text).
PJ 30	—	Abundant (fig. 9:5, 6; Gilboa 2001b: pls. 5.38:16–22; 5.45:10–17)	**Dominant** (fig. 11:11)	Present (fig. 13:14)	Same as above, but adorned with Phoenician Bichrome. Decoration in Ir1b is variegated and in Ir1|2 and Ir2a very uniform (see text).

The mark of the Phoenician Bichrome group at its inception (Ir1b, see below) is the enclosed band—a wide band flanked by one or two narrow strips on either side. The addition of varying band widths (*in deliberate, consistent patterns*) is new to the Levantine decorative syntax and is not shared by either the Canaanite or the Philistine traditions, both of which are predominantly linear (i.e., designs are either linear to begin with, or are rendered in outline, and all of the lines in the composition are approximately of the same width). Secondary motifs are discussed by Gilboa (1999a, supplemented in 2001b); most signif-

TABLE 9. Temporal Distribution of Painted Pilgrim Flasks and Flasks/Jugs (Main Types) in the Early Iron Age Horizons at Dor

Type	*Ir1a*(1)	*Ir1b*	*Ir1|2*	*Ir2a*	*Description and comments*
FL 2	**Abundant** (fig. 5:4, 5)	*Rare*	—	—	Small lentoid flasks with small plain or funnel mouth, two handles, usually painted with red (rarely black or both colors) concentric circles on the body.
FL 1	Present (fig. 5:2, 3)	*Very Rare*	—	—	Oversized lentoid flasks with large funnel mouth, decorated as above, plus a "ribbon" or "star" shape on the shoulder.
FL 4	—	Present	??	??	Small lentoid flasks with Phoenician Bichrome decoration.
PJ 3, PJ 5, PJ 6	—	Many (fig. 9:7–9)	—	—	Monochrome red (usually), black, or two-colored (rarely), one-handled or two-handled globular flasks with concentric circle decoration. Often with very thick walls.
PJ 4	—	Present (fig. 9:10, 11)	??	—	Same as PJ 3, but decorated in Monochrome configuration (usually red): wide band enclosed by two narrow stripes.
PJ 11, PJ 12	—	**Prolific** (fig. 9:12–14)	Present (fig. 11:5)	Present?? (no bases preserved; fig. 13:9, 10?)	Phoenician Bichrome globular flask/jugs, decorated with a concentric red band enclosed by narrow black stripes and usually geometric motifs opposite the handle. Occasionally white is added. Rounded bases. In Ir1b they are often very thick, often wet-smoothed or burnished. These latter characteristics disappear in Ir1|2.
PJ 14	—	?? (apparently not present)	**Prolific** (fig. 11:6)	Present?? (no bases preserved; fig. 13:9, 10?)	Phoenician Bichrome jugs, as above, but with ring base. No thick examples.
PJ 15	—	?? (apparently not present or extremely rare)	**Prolific** (fig. 11:8, 9)	**Prolific** (fig. 13:11, 12)	Phoenician Bichrome jugs with ring base, as above, but the decoration is horizontal. In Ir2a some have conical necks, and on many the black "stripes" and red "bands" are of the same width.
PJ 16	—	—	Present (fig. 11:10)	Present (fig. 13:13)	Small, narrow-necked piriform jugs with Phoenician Bichrome decoration.

icant among these are cross-hatched triangles and lozenges, sometimes composite patterns of these, and other motifs of Cypriot antecedence. A few are shared with the Philistine Bichrome group, but none except the trivial ones seem to be derived from the Late Bronze Age Canaanite repertoire. This decoration is applied to a narrow choice of vessels—in Ir1b exclusively small containers, specifically, small flasks (usually lentoid), one-handled (and occasionally two-handled) globular flask/jugs, and strainer jugs.

During Ir1b, this very same set of attributes (and also the very same decorative impetus and the function of the vessels) also characterizes vessels painted in one color only (usually red). Thus, as long as we do not dispose of the "Phoenician Bichrome" label for such vessels painted in two (or three) colors (and we don't), "Phoenician Monochrome" is the only suitable label for the single-color ones. This holds despite the fact that other attributes of both Bichrome and Monochrome groups, especially the vessels' forms, gradually develop from the Late Bronze Age, through the typical Ir1a and Ir1a\|b concentric-circle "late Canaanite" decoration, into the Ir1b. Regarding morphology, the evolution may schematically be described as follows: The LB-derived large lentoid flasks gradually start to inflate (and are often asymmetric), lose one handle, and are transformed into one-handled globular flasks/jugs (this transformation does not involve the small flasks, which remain lentoid and usually two-handled). It is yet unclear whether ring-based jugs appear in this phase. If they do, they are extremely rare. The carinated/

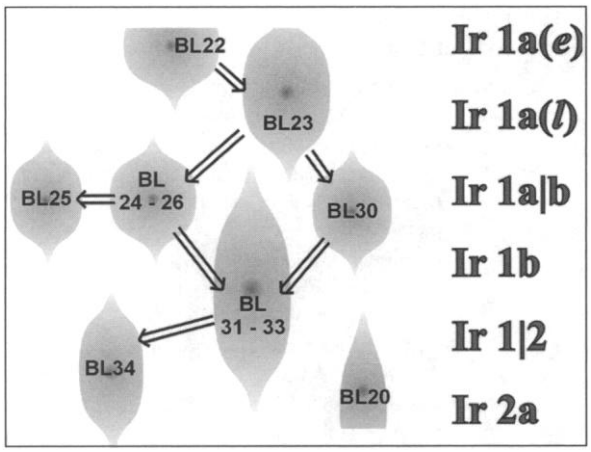


Fig. 14. Diagram showing the morphological evolution of carinated bowls at Dor.

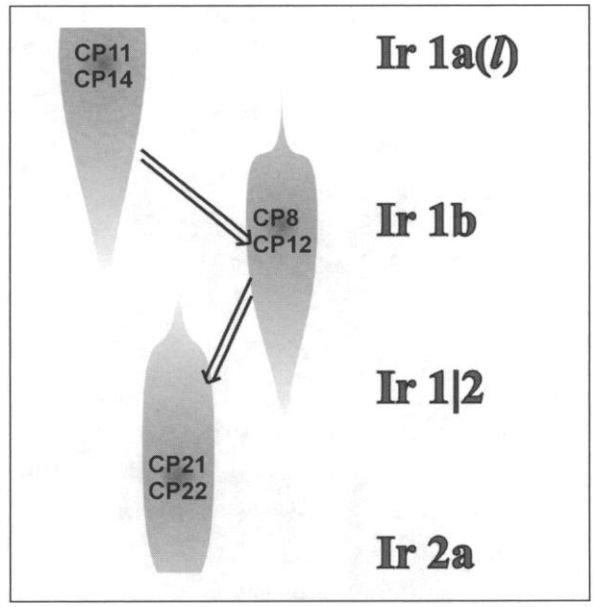


Fig. 15. Diagram showing the morphological evolution of cooking pots at Dor (main types).

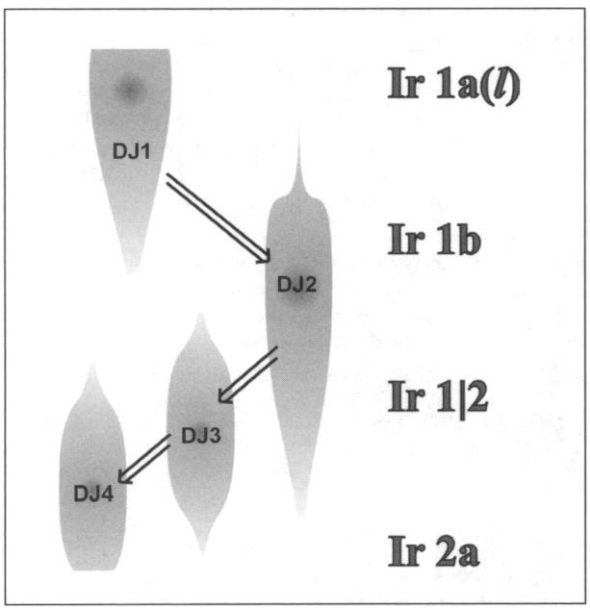


Fig. 16. Diagram showing the morphological evolution of dipper juglets at Dor (main types).

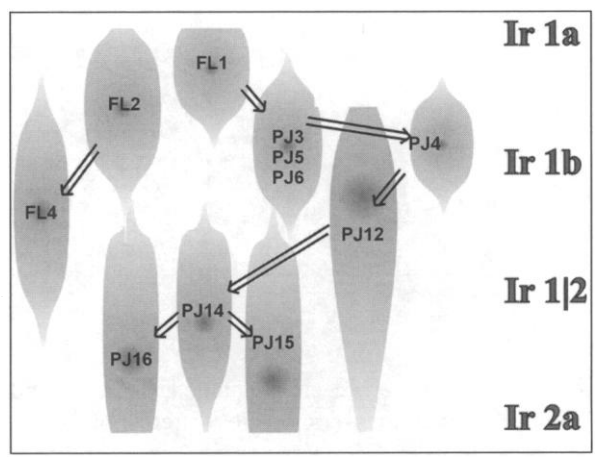


Fig. 17. Diagram showing the morphological evolution of the Phoenician flasks/jugs at Dor.

biconical strainer jugs, usually with a basket handle, develop into rounded vessels, with one loop handle perpendicular to the spout.

During Ir1|2 Phoenician Monochrome disappears and Bichrome prevails. Concurrently, the Bichrome round-based jugs/flasks are supplemented by other shapes of small containers (fig. 11:6–10), most notably provided with a ring base. Other vessels exhibiting "Bichrome" colors and syntax (an occasional bowl) are extremely rare.

Only during Ir2a, other than further additions to the Bichrome small container repertoire (e.g., fig.

13:12), is the technique more widely applied to other forms (bowls, jars, chalices; e.g., figs. 12:5, 13:4), a phenomenon that becomes much more evident in Iron Age IIB (see Gilboa 1999a: fig. 14, including funerary receptacles). Also in this stage, the maintenance of the established width of the bands (wide red flanked by narrow blacks) is often neglected (fig. 13:11).

The consistent application of the Phoenician Bichrome and Phoenician Monochrome decorative syntax to small closed containers is in stark contrast both to the predominance of jars and open vessels (bowls and kraters) chosen for decoration in the Canaanite tradition and the typically Philistine forms of tableware (skyphoi, kraters, jugs, bottles, stirrup jars, though the two groups do share one common form—the strainer jug).

Lastly, a word about red slips and burnishes. These have been widely used as criteria since the first attempts at periodization of the Levantine Iron Age (for recent treatments, see, e.g., Holladay 1990; Mazar 1998). The first appearance of red slips in Iron Age Dor is in the Ir1|2 horizon, and they become somewhat more prevalent in the Ir2a. But they never become as predominant at Dor (nor elsewhere on the northern littoral; see, e.g., Bikai 1978: table 1; Anderson 1988: tables 19, 20) until Iron Age IIB, in contrast to many inland sites.

The Late Bronze Age, the LB\|Ir Transition, and Early Ir1a

As noted above, these horizons were clearly defined to date only in Area G. Although they precede the chronological span discussed here, a few comments are in order. In Phases G/12 and G/11 the (very fragmentary) pottery is generally of LB II date, including both Mycenaean and Cypriot (LC II) ceramic imports, but for the time being cannot be characterized beyond that. The uppermost surfaces of Phase 11 produced only very scant pottery, mainly small fragments that defy a clear chronological attribution and cannot decisively be defined as either Late Bronze Age or early Iron Age. This small assemblage does not contain any imports.

In contrast to the above, the early Ir1a assemblage, of Phase G/10, is clearly from the Iron Age. It includes, for instance, cooking pots of Iron Age types (with either upright or inturned rims). Generally, the whole repertoire is very similar to that of the subsequent phase, G/9 (see below), though there are clearly discernible differences in formal attributes of some types (mainly the bowls, whose rims are more carefully shaped). No clear western imports are attested, but there are some decorated sherds, mainly skyphoi, some of which seem to be of local manufacture, and others of very uncommon fabrics.

As the ceramics of the upper layers of phase G/11 are scant, the degree of continuity or discontinuity between Phases G/11 and G/10 cannot be assessed. A gap, at least in this area, is definitely a possibility.

"Aegeanizing" Wares. Several fragments of an amphoroid krater (Stern 2000a: pl. IX:1 right) and a stirrup jar (Stern 2000a: pl. IX:1, upper left) are attributed to Phase G/11, uncovered under the Phase G/10 construction. They are finished with a lustrous orange slip and painted with reddish-orange circles. They have corollaries both in Cyprus, in the LC IIC–LC IIIA chronological range, and in Ugarit.[3] Thin-section petrography indicates that both vessels were produced in the Levant (A. Cohen-Weinberger and Y. Goren, pers. comm.).

Phase G/10 is the first horizon at Dor in which a few fragments of Philistine Bichrome ware, made in Philistia, are clearly attested, as well a few fragments of related wares of non-Philistine manufacture (see Gilboa, Cohen-Weinberger, and Goren in press; for color photographs of some of these sherds, see Stern 2000a: pl. IX:2, 3). Though they are very rare, they are significantly better attested in this horizon than in others.

Late Ir1a

All the pottery illustrated from this horizon (figs. 2–5) originates from the primary, mostly in situ contexts sealed under the destruction of Phases B1/12 and G/9. By far the most dominant bowls in this horizon are different variants of carinated bowls with short upper walls and relatively thick, molded rims (fig. 2:5–9). The outer projection of the rim is triangular and usually is significantly thicker than the inner projection. Many of them bear red bands on their

[3] A similarly adorned krater, from the destruction level of Ugarit, was presented by A. Caubet in a lecture held at Ben-Gurion University on May 4, 2000. For another similar krater from Ugarit, see de Contenson et al. 1972: fig. 14. Both M. Iacovou and S. Sherratt suggested a date in the LC IIC–LC IIIA chronological range for this piece (pers. comms.; Sherratt in press). Iacovou, who examined the sherd itself, was of the opinion that the vessel may indeed be Cypriot.

rims; and some have red or black or two-colored striations. These bowls seem to be a development of similar bowls, attested mainly in Phase G/10, whose rims, and apparently also other parts of the vessels, are more sharply shaped and accentuated. The dominance of these carinated bowls is one of the best chronological markers for the late Ir1a horizon at Dor. Also present, but in much lesser quantities, are, on the one hand, a few of the above-mentioned earlier types (fig. 2:4) and, on the other, more delicate cyma-shaped bowls with thinner and only slightly molded rims (fig. 2:10, 11), which develop from the late Ir1a bowls and become prolific in the next horizon. Other bowls present in this horizon are of clear Bronze Age derivation (fig. 2:2, 12). There are also a few occurrences of simple carinated bowls, which become the dominant form in Ir1b (see below), and a few bell-shaped bowls, or skyphoi, adorned either with an inner red band on the lip, or with spirals (fig. 2:13). No open vessels that may be considered fine ware could be attributed to this horizon.

Only a few kraters were uncovered in the late Ir1a assemblages, and the commentary below should thus be regarded as preliminary. The most common ones are variants of the open, gently carinated kraters with simple, folded, thickened rims (fig. 2:14, 15), as is the case throughout the early Iron Age at Dor. Also attested are some examples of kraters that are morphologically similar to those just mentioned, but more delicate (fig. 2:16). Amphoroid kraters (fig. 2:18–20) are present, often decorated (a rare phenomenon for tableware in this phase), but in yet unknown relative quantities. There are also a few examples of kraters with carefully molded, hammer-shaped rims (fig. 2:17).

The different cooking pot types have rims that are delicately shaped, usually with a marked inner concavity (fig. 3:1–3). Most rim types end with a long and thin down-turned ridge (fig. 3:1, 2). Cooking pots with coarser rims, evident in later horizons (see below), are absent.

The most frequent jars in this horizon are straight-shouldered jars of two size categories (fig. 4:1 vs. fig. 4:2), nearly all equipped with reinforced bases. Some of them bear painted decoration (fig. 4:4, 5). The numerous jar rims/necks in this horizon (fig. 4:3, 4) are mostly variants of tall cylindrical necks with either plain rounded or slightly thickened rims, which belong to these types of jars.

The next most frequent type is the pear-shaped jar, usually equipped with a plain, thickened, out-turned or ridged rim (fig. 4:6–8). No jars of this type have reinforced bases. Some bear painted decoration. Also frequent are small jars with sloping shoulders, a cylindrical, somewhat flaring neck, and a ridged rim (fig. 4:9).

Other than the small containers (see below), and very rarely other vessels such as some of the amphoroid kraters, the two groups of jars are the only class of vessels that seems to have been (occasionally) decorated. The configuration of the decoration hardly varies: a band on the rim, a group of bands around the shoulders (sometimes in an enclosed configuration; see below), and one band (seldom two) lower down the body. Other than in rare two-colored cases, the paint is red.

Both collared-rim and "wavy-band" pithoi of Cypriot derivation are well represented in this horizon (fig. 3:4, 5; see Gilboa 2001a; Cohen-Weinberger and Wolff 2001).

The dipper juglets (fig. 5:1) are narrow and elongated, usually with a flaring neck and a pointed base, in Late Bronze Age tradition.

The lentoid flasks and the strainer-spouted jugs, both types clearly of Canaanite Late Bronze Age ancestry, are the only vessels of this horizon that are *systematically* decorated, usually in red, seldom in two colors. Most of the flasks are of the small variety (fig. 5:4, 5); few are of the very large size (fig. 5:2, 3), equipped with large funnel mouths. Undecorated flasks (of the small variety only) are rare. Some of the larger flasks exhibit decoration other than the concentric bands—a ribbon or star in all cases. Red-painted strainer-spouted jugs are abundant, but very fragmentary. Most of them are carinated (fig. 5:6), apparently equipped with basket handles.

Imports. Among the vessels that can be demonstrated to have been manufactured outside the northern coast of Israel, Egyptian jars, manufactured of Nile clays (A. Cohen-Weinberger, pers. comm.), are the most abundant (for complete Egyptian jars, see Stern 2000a: fig. 250; Gilboa 2001b: pl. 5.8). Among the wavy-band pithoi, most of which are of mainland manufacture, a few may have been actual imports from Cyprus. This has been demonstrated petrographically for the Ir1b horizon (see below), but as yet not for the Ir1a. One fragment of a Philistine Bichrome container and one red-painted skyphos (Gilboa, Cohen-Weinberger, and Goren in press; Sharon and Gilboa in press) were imported from the Negev or the Shephelah. It is possible that the rare Philistine

Bichrome piece was redeposited, as this ware is somewhat better attested in the early Ir1a.

Vessels of Foreign Affinities. The locally produced wavy-band pithoi, of Cypriot derivation (Gilboa 2001a), are a poor chronological index. Whether they are evidence of firsthand contact with Cyprus at this time or are an already-acculturated form merely bearing witness to earlier contacts cannot be ascertained at present. It is likewise impossible to construct any specific temporal links for the locally produced coarse skyphoi, also of western affinities (fig. 2:13). Though painted in one color, these coarse skyphoi are certainly not comparable with the early Philistine Monochrome group, usually distinctive for well-levigated clay and careful execution. Also, their development in the north is totally different from that in Philistia, as already observed by A. Mazar (1985a: 90). Indeed, in Phoenicia, skyphoi that are spiral-decorated, decorated with simple band designs, or altogether unpainted, typically quite coarse, occur throughout the early Iron Age, most notably at Tell Keisan (see below).

The painted amphoroid krater in figure 2:18, undoubtedly a local product, has both morphological and decorative corollaries in Syria and south Anatolia, both in terminal Late Bronze Age and early Iron Age contexts (at Alalakh, Ugarit, Hama, Tell Afis, and Tarsus; see Sharon and Gilboa in press). The best comparanda, however, are in Cypriot Proto-White Painted (PWP) and White Painted (WP) I wares (see, e.g., Myres and Ohnefalsch-Richter 1899: pl. 3:439; Karageorghis 1985: 826, fig. 5; Flourentzos 1997: pls. 30:20; 29:12; Karageorghis and Iacovou 1990: pl. 7:83).

The orange-painted strainer-spouted jug in figure 5:7 (for a color photograph, see Stern 2000a: pl. IX:6) is a unique vessel. Again, though both visual inspection and petrography suggest that it is a mainland product (A. Cohen-Weinberger, pers. comm.), the decorative scheme is obviously "westernizing," especially bringing to mind Philistine pottery and even more so Cypriot ceramics. In Cyprus, the closest parallels to its decorative scheme occur on a PWP belly-handled amphora uncovered at Enkomi on *Sol* II of the Ingot God Sanctuary (J.-C. Courtois 1971: fig. 140, no. 826); and less so on a PWP kalathos uncovered just north of this temple at Enkomi (J.-C. Courtois 1971: fig. 107, no. 1220); on a PWP pyxis in the Cyprus Museum (Iacovou 1988: fig. 34, cat. no. 15); and on a Bichrome I amphora from Tomb I at Salamis (Yon 1971: pl. 22:65) (for details, see Sharon and Gilboa in press).

The pottery from Floors III–I of the Ingot God Sanctuary is considered by Iacovou to be early LC IIIB; in fact, according to her, this sequence "defines the transitional stage from LC IIIA to LC IIIB" (Iacovou 1988: 8). Also according to her, stratigraphically, amphora No. 826 should be attributed to *Sol* III rather than to *Sol* II. (For a later, LC IIIB/CG I date suggested by Webb and by Courtois, and rejected by Iacovou, see Iacovou 1988: 9 and n. 137; a WP, rather than PWP definition for this amphora was suggested by the excavators [J.-C. Courtois 1971: 324].) Stylistically, then, without imposing too much of a burden on a single vessel, we may conclude that this rare jug at Dor best fits an LC IIIB, perhaps early CG I, horizon.

Ir1a\|b

This horizon is represented to date mainly by one partial assemblage, in Phase D2/12 (for possible contemporaneous phases in other areas, see table 1). The assemblage as a whole is very similar to that of the previous horizon—other than the bowl repertoire, which is what we chose to illustrate (fig. 6). As regards bowl types, there is now a significant change in relative quantities. The carinated bowls with thickened rims, the hallmark of late Ir1a, are now few, and in their stead different variants of generally smaller and more delicate, cyma-shaped bowls, with thin, only slightly molded and much less accentuated rims form the majority (esp. nos. 6–15). Painting on these bowls—either a red band on the rim or, rarely, concentric bands inside—is much rarer than in late Ir1a. As indicated above, these bowl types are important in two respects. First, they form an evolutionary morphological link between the bowls with more conspicuous rim treatments of the Ir1a horizons, and those with hardly any rim treatment, which are dominant from Ir1b on (for a mathematical exposition of this process, see Gilboa et al. in press). Second, as the bowl assemblage is typologically distinct from both earlier and later phases, this implies that some "chronological space" should be allowed for this horizon. Neither Cypriot pottery nor Phoenician Bichrome ware are yet attested.

Ir1b

Extensive ceramic assemblages of this horizon were identified in all three excavation areas, but

most clearly in Area D2 (Phases 10–9). The pottery in figures 7–9 originates in contexts sealed within the mudbrick building of these phases. For the purpose of this paper, the pottery of both is presented as one assemblage, to avoid further subdivisions.

The ceramic characteristics of this horizon are detailed in tables 2–9. The main features differentiating this horizon from the previous ones are the following: (1) the predominance of the simple carinated bowls with simple rims, including the variety with the short rim (concurrently, all the earlier types become rare); (2) the abundance of heavy carinated jars with short, thickened rims, at the expense of the types with the tall cylindrical necks; (3) the occurrence of cooking jugs (rounded and carinated); (4) the transformation of the painted containers repertoire, both morphologically and in decoration; and (5) as part of this phenomenon, the emergence of the Phoenician Bichrome group.

Imports. Only a few rim pieces of Egyptian jars were found in this horizon (Gilboa 2001b: pls. 5.32:22, 23; 5.42:23; 5.47:15), but the conspicuous body sherds of such jars were encountered in numerous loci. Wavy-band pithoi are represented in as yet unknown quantities, but none in primary deposition. As in the previous horizon, most are of local manufacture, but at least one, by petrography, is probably an actual import from Cyprus (Cohen-Weinberger and Wolff 2001: no. 66, which belongs to Ir1b and not to the destruction layer [late Ir1a] as cited there).

There may be one or two Philistine Bichrome fragments in fills of this horizon (e.g., Gilboa, Cohen-Weinberger, and Goren in press), but as they are so few (and small), they may have been redeposited.

This is the period in which Cypriot Iron Age ceramics are attested for the first time, in WP and Black-slip wares (fig. 9:15–19; for additional examples from the same contexts, see, e.g., Gilboa 1999b: figs. 2:1–5; 3:1–7; forthcoming; for a photograph of some examples, see Stern 2000a: fig. 256). Typologically, as an ensemble, these fragments represent an early to mid-CG I horizon. They are all Type I vessels (and there are no PWP examples). All in all, however, the Cypriot pottery of this horizon is not nearly as abundant as in the next.

Vessels of Foreign Affinities. As in the previous horizons, Cypriot-style wavy-band pithoi are attested (but only by fragments), and there are a very few locally produced skyphoi (fig. 7:12, 13; see also Sharon and Gilboa in press). Also, it is possible that some of the "Cypriot" tableware is locally produced (e.g., Gilboa 2001b: pl. 5.48:15), but this will have to be confirmed by clay analysis. For the Cypriot stylistic affinities of the Phoenician Monochrome and Bichrome decorative modes, see above.

Ir1\|2

Extensive primary assemblages of this horizon were unearthed in all Iron Age excavation areas, in addition to many sealed contexts; thus the repertoire is well defined. Ceramically speaking, in many respects this is a degenerative phase.

The main ceramic phenomena differentiating this horizon from the previous one are (1) the nearly absolute dominance of the simple carinated bowls, even more so than previously, to the near exclusion of all earlier types; (2) the first, but extremely rare occurrences of new bowl types with molded rims and red-slip coating, of Iron Age II character; (3) the first, very rare occurrences of bowls with Bichrome decoration (Gilboa 1989: fig. 1:21); (4) the dominance of the simple kraters with short, thickened, folded rims, many of them with two or four handles, to the near exclusion of all other types; (5) the decrease in the number of kraters with upper flaring walls and the disappearance of amphoroid kraters; (6) the transformation of the cooking-pot repertoire, including the near disappearance of the more delicate rim shapes, and the dominance of new types—namely, cooking pots with various squat, coarse rims and, less so, completely triangular rims, and the abundance of handles; (7) the transformation of the jar repertoire, namely, the dominance of the oblong jar with very short, upright neck and thickened, folded rim, along with the concomitant disappearance of earlier types, and a few new occurrences of bag-shaped jars; concomitantly, reinforced bases become rare, as do collared rim jars and wavy-band pithoi (the latter two attested as fragments only, and probably redeposited) and Egyptian jars; (8) a significant change in the shape of the dipper juglets, as nearly or totally rounded juglets with cylindrical necks almost entirely replace the narrower ones with pointed bases and flaring necks (and are, seldom, red-slipped).

Moreover, the repertoire of small painted containers has also completely changed: the monochrome and two-colored methods of painting have disappeared and Bichrome dominates the scene; large lentoid flasks have vanished, and small ones (only Bichrome ones) are extremely rare. In addition to the

round-based Bichrome jugs with concentric decoration, there are now many ring-based ones, similarly adorned. This is also the clear beginning of the horizontal Bichrome decoration on jugs, occurring now mainly on rounded jugs and on small piriform jugs/juglets. Out of the variegated decorative techniques and motifs manifested on the strainer jugs of the Ir1b horizon, what remains now is a very limited range of geometric ornamentation, only on rounded Bichrome jugs.

Imports. Cypriot ceramics in Iron 1|2 contexts are prolific, though as a rule very fragmentary. The better-preserved fragments (fig. 11:14–18; see further Gilboa 1999b: figs. 4–6) span the CG Ib–II range (for photographs of some of these vessels, see Stern 2000a: fig. 45.)

Two fragments of Euboean Proto-Geometric vessels were found in this horizon (fig. 11:19); they are discussed below.

Vessels of Foreign Affinities. There are a few occurrences of tableware produced locally in Cypriot style (see Gilboa 1999b: fig. 5:7; Yellin 1989). Likewise, clear geometric designs of Cypriot origin are still attested on Bichrome containers (fig. 11:11), in addition, of course, to the continued use of the enclosed band configuration.

Ir2a

The Ir2a ceramic horizon at Dor is very similar to Iron 1|2; the two must have been close in time. Still, there are differences. Chiefly, various ceramic phenomena whose initial budding may be traced in the 1|2 horizon are now better attested (though the Ir2a assemblages at Dor are not nearly as rich as the previous ones). Among these are (1) the more careful rim treatments of both bowls and kraters; (2) the more common occurrence of red slip and burnish on these and other vessels; (3) the more common occurrence of Bichrome bowls; (4) the dominance of the relatively squat, round-based dipper juglets; and (5) the degeneration of Bichrome ornamentation. New features are (1) (rare) occurrences of red-slipped and burnished fine ware bowls; (2) the deep Bichrome bowls with external paint; and (3) small Bichrome jars.

Imports. As in the previous horizon, Cypriot pottery is abundant, but the typological vista different. Vessels now are mainly of Type III, reflecting an early CG III horizon (fig. 13:15–21; also Gilboa 1999b: figs. 7, 8; for a photograph of some of these fragments, see Stern 2000a: fig. 54 lower). Concomitantly, two new Cypriot ware groups are now clearly attested: Bichrome and Black-on-Red (see more on this below). At least one Egyptian jar is attested in a reliable Ir2a context.

CORRELATION WITH OTHER SOUTHERN PHOENICIAN SITES

What follows is a proposed correlation of the Dor ceramic sequence with three of the four major sites in Phoenicia in which an early Iron Age sequence has been excavated (and published)—namely, Tell Keisan, Tyre, and Sarepta. Table 21 summarizes this proposed correlation and also includes two other sites in Dor's vicinity that are not explicitly discussed here: Tel Mevorakh (Stern 1978) and ʿEn Hagit (Wolff in press). The one site omitted here is Tell Abu Hawam, whose problematic stratigraphy and associations of the pottery require a lengthy discussion which by far surpasses the scope of this article.

Correlations are offered specifically for the chronological horizons that are well attested at Dor, and for which we possess radiometric dates, i.e., late Ir1a to Ir2a. The best correlation may be offered with Tell Keisan, for two main reasons. First, this is the only other site in the region that also produced a very detailed early Iron Age stratigraphy and abundant, well-segregated ceramic assemblages accompanying it. Second, at this site, relatively close to Dor, the different components of the pottery repertoire are very similar.

Correlations with the more distant sites, which also produced less detailed sequences, are based on the general ceramic developments and on specific pottery groups that have a significant spatial distribution. Chief among these are the jars, the painted containers, and the Cypriot vessels. The following summaries involve only very specific components of the respective ceramic assemblages, namely, those that were instrumental to us in pursuing our chronological ends.

Tell Keisan

Tell Keisan is located at the eastern margins of the ʿAkko Plain, about 8 km southeast of the ancient mound of ʿAkko (fig. 1). In 1971 large-scale excavations were conducted at the site by the École Biblique

et Archéologique Française in Jerusalem, directed first by R. de Vaux and subsequently by J. Prignaud, J. Briend, and J.-B. Humbert, who excavated until 1980. (Late Bronze and Iron Age remains were also uncovered in 1935–1936 during the first excavations at the site, conducted by the Nielson expedition, headed by J. Garstang and A. Rowe, but most of the finds were lost in World War II.)

The relevant occupational strata in the French excavations are 13–8a (the end of the Late Bronze Age until Ir2a; see below). This full sequence has been published from Area B only, on the eastern margins of the mound. For the different chronologies offered for it, see table 10. Strata 10–8a are most relevant for our purposes here, though we will devote some space for Strata 13–11, which provide a detailed stratigraphic/typological sequence for the very end of the Late Bronze Age and the very beginning of the Iron Age—an epoch for which the evidence from Dor is as yet scant.

Data from Strata 9–8a in Areas A and B have been published in a final form, alongside some data pertaining to Strata 11–10 (Briend and Humbert 1980, a report of the 1971–1976 seasons). For Stratum 9b and on, about 500 m^2 have been excavated in Area B. The earlier levels were reached in more restricted probes (see below). Most of the published pottery in the final report originates in Area B. It was not made explicit how the pottery was selected for publication. Presumably the main types and the more complete shapes have been illustrated.

The early part of the Iron Age sequence in Area B (Strata 13–10) was presented chiefly in a preliminary report and in an entry in the *New Encyclopedia of Archaeological Excavations in the Holy Land* by Humbert (1981; 1993), and in two unpublished, thorough ceramic studies by M. Burdajewicz (1992; 1994; the latter is his Ph.D. dissertation). Burdajewicz's reports are generously illustrated and augmented by quantitative data.

Stratum 13 (see also Burdajewicz 1994: level i) was reached in approximately one 5 × 5 grid square, which revealed part of a structure built in an unusual manner of brick and wood (Humbert 1988: 66). It was heavily destroyed, and sealed by about a meter of destruction debris, particularly burned bricks. A rich ceramic assemblage was uncovered here, part of it in situ (Humbert 1981: 389). Traces of purple dye in the debris led Burdajewicz (1994: 80–81) to suggest that this was an industrial area.

Stratum 12b–a was exposed in a somewhat larger area than Stratum 13. Above the destruction debris of the latter was a layer of an apparent leveling operation (Burdajewicz 1994: 7, level h), above which a new building (buildings?) was constructed, oriented similarly to the Stratum 13 structure but of inferior construction. The two phases recognized within this building were segregated by floors, and by a layer of mudbricks which Burdajewicz considered evidence of some disruption. In Stratum 12b some industrial activity was hinted at but not described explicitly (Burdajewicz 1994: 7). The exact nature of the deposits here is as yet unclear, but the published pottery seems to indicate fills rather than finds in primary deposition (this holds true for the entire 12–10 sequence). The excavators state that the stratigraphic sequence was clear and undisturbed (Humbert 1981: 385).

Stratum 11 (Burdajewicz 1994: levels b, a) also marks (in Area B) new building operations. The new building is oriented slightly differently and is much more substantive: the walls are wider (0.9 m), with foundations built of boulders, and the rooms are larger. No evidence of destruction was observed between Strata 12 and 11, but the excavators suggested that the very imposition of this structure on the previous ones marks some cultural change (Humbert 1981: 388). Their assessment was that this occupation was of short duration, and that the building was soon abandoned. There was, however, no evidence of violent destruction, and no substantial artifactual assemblages were uncovered on the building's very clear floors and stone pavement (Humbert 1981: 388).

In *Stratum 10* (Burdajewicz 1994: levels d, c), the imposing Stratum 11 structure of Area B was replaced by modest constructions, of which little survived (and no plan published yet). They consisted of walls built entirely of mudbricks or *pisée*, without stone foundations. Much pottery has been assigned to this stratum (see below), but the nature of the deposits is yet unclear. According to Burdajewicz (1994: 7), Stratum 10b was sealed by a clear destruction layer (chiefly burned bricks), a destruction that was not mentioned by the excavators.

Stratum 9 has been exposed over a fairly large area (about 500 m^2) and was divided into three substrata (c–a). Of the early phase (c), only very fragmentary remains have yet been published. About 95 percent of the pottery attributed to Stratum 9c (and the lion's share of the pottery published to date as representing it) originated in one deposit, probably a pit (6067; see below; Briend and Humbert 1980: 26), whose exact location is not indicated on the published plans. The stratigraphic attribution of this

TABLE 10. Tell Keisan Stratigraphy and Proposed Dates

Stratum	*Final report (Briend and Humbert 1980: 26–27, 229)*	*Amended dates (Humbert 1981: 375)*	*Later studies (Burdajewicz 1994: 112–17)*
13			1st quarter of the 12th century B.C.E.[1]
———	1200/1190 B.C.E.	1200/1190 B.C.E.	1180/1170 B.C.E.
12 (a+b)			
———	1150 B.C.E.	1150 B.C.E.	1150 B.C.E.[2]
11			mid-12th century B.C.E.[3]
———	1100 B.C.E.		
10 (a+b)			
———	1075 B.C.E.[4]	1100 B.C.E.[5]	1100 B.C.E.[6]
9c			
———	1050 B.C.E.	1050 B.C.E.	
9 (b–a)			
———	1000 B.C.E.	1000/980 B.C.E.[7]	1025 B.C.E.[8]
8 (c–a)			

[1] Based on the observed continuity of the pottery assemblage vs. the Late Bronze Age and on the "WPWM III" jug and "Myc. IIIC" stirrup jar, dated by Burdajewicz (1994: 112) ca. 1190/1180 B.C.E. See our remarks in the text.

[2] Burdajewicz's considerations in dating Stratum 12 were the appearance of cooking pot types MII and MIII ("Iron Age types with short triangular rims") and the poor nature of this stratum which, according to him, reflected the harsh conditions of the first half of the 12th century (Burdajewicz 1994: 116).

[3] Stratum 11 was considered short-lived by the excavators. Its pottery was similar to that of Stratum 12 and thus was dated by Burdajewicz to around the mid-12th century.

[4] The so-called Cypro-Mycenaean assemblage of Stratum 9c was linked by E. Peuch (Briend and Humbert 1980: 230–31) to that in the Alaas cemetery in eastern Cyprus and dated 1075–1050 (late LC IIIB) according to the date suggested by Karageorghis for this cemetery. But there also exist relevant stylistic comparanda in CG I; see further comments and discussion in the text for Stratum 9c.

[5] In Stratum 10 there were a few fragments whose fabric was identical to that of the so-called Cypro-Mycenaean pottery of Stratum 9c. Peuch dated the latter group 1075–1050 (see below), but Humbert (1981: 391–92) felt this is too restrictive and assigned an initial date to 9c ca. 1100 B.C.E. In his view Stratum 10 could not antedate that by much. See our notes below and the text for Stratum 9c.

[6] Burdajewicz's considerations for this dating of Stratum 10 (Burdajewicz 1994: 117) are not clear. He mentions that bowls of Type BI.6 were prolific, but according to Table II.5 there were only three examples. Also, he correlates these bowls to bowls at Tell Qasile XII, but accepting, as he does, Dothan's higher chronology for Philistine Bichrome, he should have assigned a higher date to this horizon. Also, he disavows the connection between the "Cypro-Mycenaean" group and the Cypriot Proto White Painted pottery/LC IIIB horizon, on the strength of sherds of similar fabric found as early as Stratum 12a (Burdajewicz 1994: 77). Instead, he suggests Late Bronze Age antecedents for this group; this, again, should have induced him to suggest an earlier date. In our opinion, since this fabric was shown to be local, and the early (12a and 10a) sherds are not particularly Cypriot in shape or in decoration, this is neither here nor there.

[7] The Stratum 9 destruction was correlated by the excavators to those of Tell Abu Hawam IV, Megiddo VIA, and Tell Qasile X and attributed by them to some local event or, alternatively, to hostilities of a neighboring polity (Tyre being a possibility), to a destruction by David ca. 980 B.C.E., or possibly to the Aramaean expansion (Humbert 1981: 389–90; 1988: 77). We agree with the correlation to Megiddo VIA and possibly Tell Qasile X but think that this horizon parallels the latest phase of Stratum V, rather than IV at Tell Abu Hawam. For further discussion, see Gilboa 2001b: 212–16.

[8] Burdajewicz's (1994: 117) higher date for the end of Stratum 9 was based on his assessment that 8c was still an "Iron I" stratum. This is based on the existence of degenerated bell-shaped bowls; the Stratum 8 jars are compared to jars from Tel Mevorakh VIII ("late 11th century"), and the two BoR bowls of Stratum 8b were offered a late 11th century date (according to Birmingham's chronology and their occurrence at Tell Qiri VIII). We do not think the attribution of BoR to the Iron Age I can any longer be maintained (see below)—and the same type of jar occurs also later (e.g., at Tel Mevorakh VII).

pit to Stratum 9c was not straightforward. The pit is located south of W6102 of Stratum 9c (a wall that runs under W5222, the southernmost wall of a Stratum 9a–b building; see Briend and Humbert 1980: figs. 51, 54), and the fill in it seemed to be abutting the former wall (also, no foundation trench for W6102 seemed to cut the pit). On the other hand, there were fragments of the same restorable pots on both sides of W6102. The attribution of L6067 to this stratum was based on typological considerations (Briend and Humbert 1980: 203). A pithos (apparently a wavy-band one) was uncovered in this stratum, associated with purple dye residue. According to Burdajewicz, its find spot was very close to the

place where, in Stratum 13, purple dye traces were also found with a fragment of a similar pithos. This suggests a remarkable functional continuity between Strata 13 and 9c.

Generally speaking, Stratum 9 was characterized by well-planned, high-quality construction, of residential/cottage industry units (Briend and Humbert 1980: figs. 51, 52, 54). This was especially evident in Stratum 9b (Briend and Humbert 1980: fig. 51; for an analysis of the architectural layout, see Humbert 1981: 392–95; 1988). The differences between Phases 9b and 9a were demarcated both by changes of the internal divisions of the structures and by clear floor levels, including stone pavements (e.g., Briend and Humbert 1980: 18–22, figs. 51, 54, 119–21).

The Stratum 9a structures in Area B were violently destroyed. Many artifacts were uncovered in situ, under destruction debris. A few architectural fragments that were attributed to Stratum 9a–b were encountered in Area A and were also provided with clear floors (Briend and Humbert 1980: fig. 53). In Section 05 in Area A, however, the destruction was less apparent, and the excavators postulated that part of the Stratum 9 constructions may not have been destroyed (Briend and Humbert 1980: 20, fig. 4).

In *Stratum 8*, above the Stratum 9 detritus, a new structure was built, though a few Stratum 9 walls were evidently reused. Here too three substrata were recognized. The general character of the area, however, does not seem to have changed. It retains the same domestic/industrial (?) nature (but stone pavements are no longer in evidence). The new building also retains the same orientation. Deposits of this stratum were attested also in Section 04 in the adjacent Area A, immediately above the Stratum 9 destruction. The two earlier phases (8c–b) could be defined only in two rooms, where floors were raised (in Loci 605 and 506/637). Very few finds attributable to these subphases have been published (see below), and the excavators found it hard to assess their duration (Briend and Humbert 1980: 190). In Stratum 8a the basic architectural unit of Strata 8b–c continued in use, but with significant constructional changes. In most rooms there were well-preserved floors, including one stone pavement.

Thus it would be fair to conclude that the Tell Keisan stratigraphic sequence ranks very close to ideal (though some more primary assemblages would certainly have been welcomed): a very detailed stratigraphy, involving frequent, significant architectural alterations, with most deposits segregated and related to the architecture by clear (and, judging by the plans and photographs, also well-preserved) floors. As mentioned above, stratigraphically, the only problematic assemblage is that of Stratum 9c.

Though the assemblages at Dor and Tell Keisan are often similar, there is no straightforward correlation between the typologies constructed at each site. Thus the comparisons are based more on the drawings than on the formal types defined by Burdajewicz (no typology was constructed for the 9–8 sequence). For the early part of the sequence (Strata 13–10), this is greatly aided by Burdajewicz's graphic presentation of the pottery. In tables 11–14 several different types (at Keisan and/or at Dor) often were put into a single category to aid the comparison. Also, the comparative tables are highly selective. We noted only the distinctive ceramic phenomena that could be compared, mainly those where a similar evolution could be discerned (for the most part excluding, for example, cooking pots).

Stratum 13. This stratum precedes the sequence discussed here. We shall confine our remarks to the imported wares—since some of these provide the terminus post quem to the Tell Keisan sequence—and hence to the southern Phoenician sequence as a whole.

Stratum 13 produced a significant amount of imported pottery, chiefly from Cyprus, including dozens of White Slip II, hand-made Bucchero, and Base Ring fragments as well as of further Late Cypriot (LC) II ware groups. "Myc. III A2–B" pottery (exact provenance unknown) was present, but much less frequent. Assuming that not all of these fragments were redeposited, we would have to place at least the beginning of Stratum 13 well in the Late Bronze Age.

Some other vessels, however, do indicate a somewhat later typological horizon. These include one fragment of a wheel-made Base Ring bowl (Burdajewicz 1992: pl. 16:7); a "WPWM III" jug,[4] and a

[4]This jug (Burdajewicz 1994: pl. 13:20) was first discussed by Balensi (1981: 399) and termed by her a "Levanto-Mycenaean jug" of WPWM III ware (FS116). She compared it to "Rude Style" vessels from Enkomi. Warren and Hankey too (1989: 163) considered it a WPWM III jug, but it is not clear whether they actually studied it or are quoting Balensi. The jug, as claimed by Burdajewicz, is certainly Cypriot in style, but after personally examining its fabric, it seems that it is apparently not Cypriot-made. We thank J.-B. Humbert for this opportunity. See Burdajewicz 1994: pl. 13:1 for another jug, of rather poor quality and obviously local workmanship, which resembles it both in shape and decoration. He also notes a jug from Ashdod Stratum XIII (Dothan and Porath 1993:

TABLE 11. Comparison of Tell Keisan 12–10 with the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*				
			Ir1a(*l*)	Ir1alb	Ir1b	Ir1l2	Ir2a
BII.1	Simple rounded bowls in Late Bronze Age tradition (Burdajewicz 1994: pls. 17:10–11a; 25:15–18; 29:13, 14, 33:25–25c).	**Dominant**	Present	*Rare*	*Very rare*	—	—
B.IV	Bell-shaped bowls/skyphoi (Burdajewicz 1994: pls. 25:10–14; 29:10–12; 33:1–5).	Many; past their prime[1]	*Rare*[2]	*Rare*		—	—
BI.5, BII.5, BI.6	Rounded and carinated bowls with molded rims (Burdajewicz 1994: pls. 17:1–1e; 7–7b; 25:1–20a; 29:1–4; 33:6–8; 33:15–24).[3]	**Dominant**	**Dominant**	*Very rare*		—	—
BC.IV	Kraters with short horizontal or triangular rims (Burdajewicz 1994: pls. 16:18; 19:1–1c; 24:1–2b; 28:1–3; 32:1–2c; Briend and Humbert 1980: pl. 81:9.	**Prolific**	*Rare*[4]	??	??	—	—
BC.II, BC.I	Gently carinated kraters with simple thickened rims (Burdajewicz 1994: pls. 28:4, 5, 7–9; 32:6, 10–12e, 14).	Frequency starts increasing in 10	Present	Present	**Abundant**	**Dominant**	**Dominant**
J.III, J.II, J.IV	"Canaanite jars" of Bronze Age ancestry: with thickened, ridged, and outturned rims, respectively.	On the wane	Present	??	??	—	—
J.I	Late "Canaanite jar" with tall, cylindrical neck and simple rim.	**Dominant** and rising[5]	**Dominant**	Present	Present	*Extremely rare*	—

[1] Prolific in Stratum 13, diminished in quantity in 12, and comprising about 10% of the bowl assemblage in 11 and 10.

[2] At Dor bell-shaped bowls/skyphoi are never as prevalent as at Tell Keisan but are better attested in early Ir1a than in the later horizons.

[3] The typology at Dor is different, and the comparison is based on rim treatment. Most of the Dor bowls are carinated. Type BI.6 was found at Keisan only in 10a.

[4] These relatively elaborate rim treatments are rare at Dor in Ir1a and later, but seem to be more frequent earlier.

[5] 75% in Stratum 10 vs. 58% in Stratum 11.

"Myc. IIIC" stirrup jar.[5] The latest Cypriot and Cypriot-style vessels in Stratum 13, which, by their complete preservation, must belong to the in situ assemblage buried by its destruction, reflect an LC IIIA horizon, which is earlier than that reflected at Dor for late Ir1a (LC IIIB and possibly even somewhat later). This is also borne out by the general character of the local assemblage, which is definitely Late Bronze Age in character.

The only substantial anchor for an absolute date is indeed the "Myc. IIIC" stirrup jar, for which we would offer the following comment: To date, based on Levantine evidence (mainly from Ugarit, Deir Allah, and Emar), the Myc. IIIB/IIIC transition is dated ca. 1190/1180 B.C.E. (e.g., Mountjoy 1999: 6, table 1; lately, based on ^{14}C dates from various Late Cypriot sites, a date for the end of LC IIC has been offered in the 1200–1160 B.C.E. range; see Manning, Weninger, et al. 2001).

The Keisan Cypriot stirrup jar, which does not belong to the very beginning of the IIIC sequence (see n. 5), should thus be placed somewhat after that date, probably no earlier than ca. 1160 B.C.E. This then should be the terminus post quem for the destruction of Tell Keisan 13, lower than the dates proposed by both the excavators and by Burdajewicz;

fig. 13:5, but with red pigment), which likewise does not seem to be Cypriot-made. For LC III parallels for this jug, see Burdajewicz 1992: 38; 1994: 102 and n. 351. It should be borne in mind, though, that according to these very same parallels, it is obvious that such jugs may be earlier than LC III (parallel to Maa-*Palaeokastro*, Floor II).

[5] The stirrup jar was found together with the typologically earlier Mycenaean and Cypriot imports. It was initially published as Myc. IIIC:1a (Balensi 1981), a terminology that, as almost unanimously agreed nowadays, cannot be employed for Cyprus, whence this jug originates (see Gunnewewg and Perlman 1994). Burdajewicz attributed it to Myc IIIC early, and dated it ca. 1190/1180 B.C.E. (for his considerations, see Burdajewicz 1994: 114). Mountjoy first termed it LH IIIC Middle (Mountjoy 1986: 169), but now considers an earlier typological attribution: LH IIIC Early, but not the very beginning of this style (pers. comm.).

TABLE 12. Comparison of Tell Keisan 9c with the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*				
			Ir1a(*l*)	Ir1a|b	Ir1b	Ir1|2	Ir2a
BI.5, BII.5	Rounded and carinated bowls with thickened molded rims (Briend and Humbert 1980: pl. 79:5–6d, 7c–11f).[1]	**Dominant**	**Dominant**	**Dominant**	*Very rare*	—	—
	Kraters with flaring upper walls and simple rims (Briend and Humbert 1980: pl. 78:4–4e).	**Many**	??	Present	**Abundant**	Present	—
BCI, BCII	Kraters with simple folded, thickened rims (Briend and Humbert 1980: pl. 78:2–2b, 2k–2n).	**Dominant**	**Common**	**Abundant**	**Abundant**	**Dominant**	**Dominant**
MIII	Open cooking pot with vertical or inturned rim and a pronounced ridge under it (Briend and Humbert 1980: pl. 77).[2]	**Dominant**	Present	Present	Present	—	—
	"Late Canaanite" jars with slanting shoulders, sharp carination between shoulders and body, and still somewhat triangular shape; cylindrical or slightly convex necks (Briend and Humbert 1980: pl. 67).	**Dominant**	**Dominant**[3]	Present[4]	Present	*Extremely rare*	—
	Small egg-shaped jars of Bronze Age tradition, with rounded shoulders and ridged rims (Briend and Humbert 1980: pl. 69:2, 2a).	Present	**Prolific**	Present	Present	—	—
	Collared-rim pithoi (Briend and Humbert 1980: pl. 68:1).	A few	**Many**	??	Present	*Apparently extinct*	—
	Dipper juglets with pointed bases (Briend and Humbert 1980: pl. 71:4, 4b).	Some	**Dominant**	Present	Present	—	—

[1] There are numerous variations to these rims (within Burdajewicz's types BI.5 and BII.5)—a continuous spectrum starting with bowls with a more pronounced carination and thick rims (e.g., Briend and Humbert 1980: pl. 79:5b, 5c, 7h, 8a, 9c, 11–11d), which at Dor are indicative of the Ir1a horizons, through bowls with a slight cyma-shaped profile and thinner rims (e.g., nos. 5, 5b, 5d, 8), which at Dor are particularly significant in Ir1a|b. Bearing in mind that we do not possess quantitative data for 9c, the assemblage as a whole seems closer to Ir1a|b, but there definitely are also earlier profiles.

[2] This type amalgamates numerous rim variants, of different shapes and lengths. Most of the rims in Stratum 9c are elongated and have an inner concavity and a very pronounced ridge outside. Others lack the inner concavity and have less pronounced ridges. As no quantitative data exist, a close comparison to Dor is impossible, but it is certain that this assemblage is earlier than Ir1|2.

[3] The Dor jars are narrower, and the shoulders less slanting. The painted decoration at both sites is identical.

[4] No complete or near complete jars were uncovered at Dor in this period, and the comparison is based on rims.

the destruction, of course, could have occurred even later.

Strata 12–10. Table 11 details the comparanda between Strata 12–10 at Tell Keisan and the chronological horizons established at Dor. Additional considerations: One jar and one jug (Briend and Humbert 1980: pl. 81:3; Burdajewicz 1994: pl. 34:1) bear relatively composite painted decoration. This Late Bronze Age configuration does not exist at Dor after early Ir1a, and at Tell Keisan disappears after Stratum 9c. One Philistine Bichrome sherd was uncovered in Stratum 12a (Burdajewicz 1994: pl. 22:19), and another was uncovered in a mixed 13/12b deposit (Burdajewicz 1994: pl. 15:17).

Suggested Relative Date: The best fit for the ceramic phenomena of these strata at Tell Keisan is in the Ir1a (*e*) and (*l*) horizons (though an earlier correlation cannot be dismissed due to lack of good comparanda at Dor). Strata 12 and 11 seem to be earlier than the late Ir1a horizon; Stratum 10 may partially, or even entirely, overlap it. This impression is supported by the fact that it is the next stratum at Tell Keisan (9c) which should be correlated

TABLE 13. Comparison of Tell Keisan 9a–b with the Early Iron Age Horizons at Dor (Selected Types)

Description and comments	*Frequency*	*Parallels at Dor*				
		Ir1a(*l*)	Ir1alb	Ir1b	Ir1l2	Ir2a
Rounded and carinated bowls with thickened molded rims (Briend and Humbert 1980: pls. 65:1–1e; 66:2b–h, 8a, 10, 10a).	**Still numerous**	**Dominant**	**Dominant**	*Very rare*	—	—
Rounded and carinated bowls with only slight rim treatment, usually pointed or rounded (Briend and Humbert: pl. 66:3, 3a, 4, 4a, 4c, 7–7a, 8c, 9).	Increasing	*Rare*	*Rare*	**Dominant**	**Nearly exclusive**	**Dominant**
"Late Canaanite" triangular jars with sharp carination between shoulders and body and bulbous bases (Briend and Humbert 1980: pls. 59, 60).	Present	**Dominant** Similar	Present	Present	*Extremely rare*	??
Small pear-shaped jars of Bronze Age tradition, with rounded shoulders (Briend and Humbert 1980: pl. 58).	Present	Abundant	Present	Present	—	—
Straight-shoulder neckless jars with short vertical or triangular rim (Briend and Humbert 1980: pls. 59:2, 60:3).	Present	*Very rare*	??	**Frequent**	*Rare*	??
Dipper juglets with rounded bases (Briend and Humbert 1980: pls. 61:7; 65:15).	Present	—	—	—	Present	**Many**
Carinated monochrome and two-colored strainer jugs, some with a basket handle (Briend and Humbert 1980: pl. 61:11, 14–16, 18).	Present	**Abundant**	Present	Present	—	—
Rounded monochrome or two-colored strainer-spouted jug (Briend and Humbert 1980: pl. 61:12).	One	—	Present	**Abundant**	—	—
Red-painted flasks midway between lentoid and globular, or globular (Briend and Humbert 1980: pl. 62:3, 9).	Present	??	Present	**Many**	—	—
Rounded Bichrome jugs/flasks (Briend and Humbert 1980: pl. 62:4, 5, 6, 8).	Present	—	??	**Dominant**	**Numerous**	??

with either the latter part of Ir1a and/or with early Ir1alb at Dor (see below).

Stratum 9c. As mentioned, this typologically significant stratum is poorly known architecturally, and the lion's share of the pottery published to date as representing it originated in one deposit, probably a pit. It seems fairly certain that it is earlier than the 9a–b deposits, but its relation to the reportedly earlier Stratum 10 has not been made explicit. The significant ceramic phenomena are concentrated in table 12.

A precise correlation of this assemblage is severely hampered by the lack of quantitative data both here and for some of the horizons at Dor and by our poor knowledge of the Ir1alb horizon at Dor. As can be seen in the table, the possible comparanda of this stratum form a wide range. Still, ignoring the simple kraters, which are prolific in the north throughout the early Iron Age, the plain pottery, especially the bowls and jars, would narrow the options down to the Ir1a(*l*)–Ir1b range at Dor, most plausibly only the Ir1a(*l*)–Ir1alb range. This conclusion is further endorsed if we add to it the terminus ante quem for the phases that precede it, and the terminus post quem for those that succeed it (see below), and a consideration of the decorated wares. Other significant chronological phenomena include the following.

Decorations: As at Dor (mainly in late Ir1a), some of the bowls have red bands on their rims and a few have inner concentric circles, either in red or in two colors. Quite a few jars bear painted decorations, in exactly the same configurations as at Dor: horizontal bands on the rim and neck, groups of bands on the shoulder, and one band under the handles (Briend and Humbert 1980: pl. 69:4–6a). At Dor, these types of decoration become rare in Ir1b and then disappear. None of the distinctive patterns of the Monochrome or Bichrome decorative syntax are as yet evident, though.

The monochrome strainer-spouted jugs in this stratum comprise both LB-derived carinated vessels and rounded shapes (Briend and Humbert 1980:

TABLE 14. Comparison of Tell Keisan 8 with the Early Iron Age Horizons at Dor (Selected Types)

Description and comments	*Frequency*	*Parallels at Dor*				
		Ir1a(*l*)	Ir1a|b	Ir1b	Ir1|2	Ir2a
Carinated bowls with only slight rim treatment—pointed or rounded—and a flat base (Briend and Humbert 1980: pl. 55:9–9c, 11–11a, 13a, 14).[1]	**Dominant**	*Rare*	*Rare*	**Dominant**	**Nearly exclusive**	**Dominant**
Delicate carinated bowl with high carination and concave upper wall (Briend and Humbert 1980: pl. 55:12).	At least one	—	—	—	—	Present (fig. 12:7, Gilboa 2001b: pl. 5,70:6)
Small elongated jar (Briend and Humbert 1980: pl. 54:4).[2]	One	—	—	—	—	One
Oval jar with slanting shoulders, one with a collar-like neck (Briend and Humbert 1980: pl. 54:1, 2).[3]	Present	—	—	??	**Nearly exclusive**	**Frequent**
"Boxy" and bag-shaped dipper juglets with rounded bases (Briend and Humbert 1980: pl. 56:6, 7).	Present	—	—	??	**Dominant**	**Many**

[1] Most of them have the sharp carination and pointed rim that exist on these bowls at Dor in the Ir1|2 transition, but especially in Ir2a.

[2] This particular jar is a near-exact analogy to the Ir2a jar of this type at Dor (Gilboa 2001b: pl. 5.78:3).

[3] It is very close to oval jars at Dor in its general shape (but not in rim shape).

pl. 71:1–3, 7, 8c). The transition from carinated to rounded strainer jugs fits at Dor the Ir1a|b and Ir1b horizons (see above).

There were also a few Philistine Bichrome vessels/sherds in Stratum 9c (Briend and Humbert 1980: pls. 71:8, 8a; 72:5, 6, 10; 80:11, 12).

The "Cypro-Mycenaean" Group: *Fosse* 6067 produced an unusual amount of painted containers characterized by distinct fabric and surface treatment: light brown-orange, polished ware, decorated in semi-lustrous, light red-orange paint. Some of the vessels were hand-burnished. Petrographic analyses proved this group to be of mainland manufacture (L. Courtois 1980: 354–58). The group comprised chiefly pyxides, flasks, and jugs, of which the latter two classes are chronologically significant. Small and large flasks are represented (Briend and Humbert 1980: pls. 74–76), comprising lentoid, asymmetric, and more rounded vessels. Some of the larger vessels are equipped with Late Bronze Age–derived funnel mouths. The concurrence of lentoid, asymmetric, and rounded flasks fits at Dor the Ir1a|b to Ir1b horizons (for the evolution of the Late Bronze Age lentoid flask into the Iron Age globular containers, see above). Like Tell Keisan 9c, at Dor, Ir1a|b is the last horizon in which large lentoid flasks with funnel mouths occur.

The jugs (Briend and Humbert 1980: pl. 70:2–4b) are rounded or (mostly) squat vessels with either short concave or tall cylindrical necks. The shapes and decorative designs evoke (but are not identical to) Cypriot prototypes in the LC IIIB–CG I range.[6] Burdajewicz (1994: 77) identified a few fragments of similar fabric in Strata 12a and 10a, which led him to deny the association of the group with LC IIIB and consequently define the jugs as *bilbil* imitations, but the Strata 12a and 10a fragments are pieces of small red-circle-decorated flasks—a local shape and decoration common from the Late Bronze Age to the Ir1b—and do not bear on the chronology of the Stratum 9c group as a whole.

[6] The excavators first interpreted the whole "Cypro-Mycenaean" group as of local production in Mycenaean tradition, but most of the parallels cited by them, especially for the jugs, were Cypriot LC IIIB ones (indeed, there are no direct links between this group and the Mycenaean repertoire). E. Peuch suggested a Cypriot Proto-Geometric association for the group (Briend and Humbert 1980: 230–31, chiefly nn. 23–29, 34). This association is indeed plausible for the jugs of this group (and for them only), but with some reservations. Among the comparable jugs cited by Peuch, there are some that originate in tombs that have since been redated to the CG I. Moreover, the occurrence of such jugs in this latter period is attested in other tomb groups securely attributed to this latter period, e.g., in Tomb 503 at Lapithos *Agia Anastasia* (Pieridou 1972: nos. 4–7a), in Tomb 521 at Amathus (Karageorghis and Iacovou 1990: fig. 4:58, 64, 33), and in Tombs 44, 51, and 67 at Palaepaphos-*Skales* (Karageorghis 1983: figs. 54:11, 151; 96:14, 15, 35; 124:37, 128, 129, 191). Moreover, the Keisan jugs are seldom identical to the Cypriot "originals," and this distance, inter alia, means that though a chronological association of Keisan 9c and LC IIIB Cyprus is indeed likely (on other grounds; see below), the jugs themselves could be also associated with a slightly later Cypriot horizon.

At Dor, the only vessels reflecting the LC IIIB (and possibly slightly later) horizon were in the late Ir1a. The Ir1alb horizon did not produce yet Cypriot or Cypriot-related pottery, and the subsequent one (Ir1b) produced an early or mid-CG I assemblage (see above).

Suggested Relative Date: Stratum 9c at Tell Keisan probably parallels either the end of Ir1a (*l*), or the Ir1alb, or both.

Stratum 9a–b. Many of the types found in Strata 9a–b are similar to those of 9c and hark back to the Ir1a (see, in table 13, rounded and carinated bowls with thickened rims, the two variants of the Late Bronze Age–style jars—the triangular and the pear-shaped [some with red or two-colored decoration]—the large lentoid-to-rounded and rounded monochrome flasks, and the biconical strainer-spouted jug, one at least with a basket handle). By and large, the Ir1b is the last horizon at Dor where such types are found. Concurrently, new types—with parallels in the Ir1b–Ir1|2 and even the Ir2a range at Dor—are beginning to appear. These include the carinated bowls with only slight rim treatment (and a significant overall decrease in the energy input in shaping bowls); (rare) neckless storage jars with rims thickened both in and out; round-bottomed dipper juglets; round, narrow-necked strainer-spouted jugs; and the globular jugs/flasks. These "later" types are not found in Stratum 9c. This transformation of the assemblage—the twilight of most Ir1a types (and the swan song of LB-derived prototypes and methods of decoration) in conjunction with the dawn of later-Iron-Age types—is the hallmark of the Ir1b at Dor. The impression, though, is that at Tell Keisan (especially in 9b) it is the old types that still predominate (but again, no concrete quantitative data are available).

This impression is strengthened by the decorative styles. Stratum 9a sees the last of the monochrome red decoration (e.g., Briend and Humbert 1980: pls. 57:8, 9; 61:11, 14–16; 62:3, 9) and the first appearance of the Phoenician Bichrome style, starting in 9b (Briend and Humbert 1980: pl. 62:4, 5, 6, 8). One Philistine Bichrome jug was uncovered in Stratum 9a (Briend and Humbert 1980: pl. 61:3).

Suggested Relative Date: Ir1b, possibly starting in Ir1alb.

Stratum 8(c–a). A very restricted number of vessels was published from this stratum, including just a few vessels from its two lowermost phases. Moreover, it is not always possible to infer the stratigraphic attribution of the published vessels within the Stratum 8 sequence.

As table 14 shows, the bulk of the comparanda, for all substages of Stratum 8, are in the Ir1|2 and Ir2a horizons at Dor. None of the Stratum 8 vessels is either red-slipped or burnished. This may be in part why Burdajewicz felt that at least the first subphase(s) of 8 should still be relegated to the Iron Age I (but see our comment above regarding the rarity of red slip in Ir2a Phoenicia). The crucial chronological pegs in this stratum, at least for 8b and 8a, are the imported wares, and these impel a later relative dating.

Two Black-on-Red (henceforth BoR) bowls were attributed to Stratum 8b (Briend and Humbert 1980: pl. 56:1, 2). No. 1, according to its locus number (659), should actually be attributed to Stratum 8a. One fragment of a closed vessel was determined by Burdajewicz to be Cypriot WP I and attributed to Stratum 8 in general (Burdajewicz 1992: pl. 28:2). One jug, considered by Burdajewicz to be Cypriot Bichrome III, is apparently a local Phoenician jug but may indeed echo in its neck shape Cypriot Type III vessels. The Cypriot parallels thus point to the Ir2a horizon at Dor (where CG III imports are prevalent) rather than Ir1|2, where the general horizon of imported wares is CG IB/II. The evidence, admittedly, is scant.

Suggested Relative Date: Stratum 8b–a: Ir2a (Stratum 8c: possibly Ir1|2).

Tyre

Iron Age remains were uncovered at several excavations at Tyre, particularly those conducted by Emir Maurice Chéhab in the early 1970s (see, e.g., Coldstream 1988; 1989), but they mostly remain unpublished. The tomb material, too, is irrelevant for the purposes of this paper. Our comparative database is thus confined to the 1973–1974 excavations conducted by Patricia Bikai and promptly published (Bikai 1978).

The excavations revealed a portion of an industrial/storage area (most notable was the faience bead production attested from Strata XVI–XIV). All in all, throughout the period that concerns us here—the Late Bronze Age until Iron Age IIA (Strata XV–IX; see below; Bikai 1978: pls. 63–67)—the area retains the same character, orientation of walls, and method of construction. By and large, differences between strata are manifested by gradual changes, the shifting of walls, relocating of industrial installations,

raising of floors, etc.; more substantial changes to the architecture are rare. The deposits of Stratum XV (the last "true" Late Bronze Age deposit) and those of Stratum XIV (the first stratum containing Iron Age ceramics) relate to the same wall system. According to Bikai, the end of Stratum XIV was marked by the destruction/robbing of some of its walls and possibly by a short period of abandonment (Bikai 1978: 8). The succeeding strata (XIII, XII, XI) are each marked by a partial reuse of earlier walls and by the addition of new ones; Strata XII and XI by and large relate to the same wall system. Stratum X witnesses a substantial leveling operation of the area and the construction of new units, but some of the walls of the old complex still remain in use; and these structures, with few alterations, continue to Stratum IX.

This cursory survey of the XV–IX range at Tyre exemplifies the extremely complex nature of its stratigraphy, a problem that is further augmented by a lamentable dearth of floors in the relevant stratigraphic sequence and by the absence of destruction levels (Bikai 1978: 73; 1992: 133; Coldstream 1988: 36–37). Bikai's definition of "strata," and the segregation of pottery therefrom, was perforce largely based on differences in soil matrix (see, e.g., Bikai 1978: pls. 70B–70C). It was often impossible to determine whether adjacent or superimposed layers represent different chronological horizons or merely different depositional features within the same event.

The excavation was limited to approximately 180 m^2, but even this small exposure, at what must be a fantastically rich site, was sufficient for establishing a representative pottery sequence (more than half a million sherds were dug out). A laudable attempt was made at total recovery and comprehensive publication of sherd data, and extensive quantitative information is provided; but there is no clue in the published report as to the reliability or quality of the contexts. Were there sealed loci, and which are they? Was any pottery in primary deposition? How "clean" and clear-cut was the segregation of the pottery assemblages assigned to each stratum? Are mixed or disturbed contexts incorporated in the quantitative presentation (that some apparently were, see Bikai 1978: 18).

The questions raised here are not intended to criticize the excavation methods or the report—considering the constraints, it was exemplary for its time. However, these are considerations necessary for the interpretation of the Tyre ceramic data. Specific implications are found in the following.

Some general remarks regarding the Tyre chronology, as presented in table 15, are also in order here. Comparisons with pottery assemblages in (inland) Palestine, as recognized by Bikai, did not contribute much to the dating of the Tyre sequence. Some general resemblance was suggested between Strata XIV–XIII and Tell Abu Hawam IV and between Strata XII–IX and Tell Abu Hawam III, but was (correctly, in our opinion) deemed useless for even nearly accurate dating. Thus Bikai based her chronology chiefly on the Cypriot and Greek imports and their respective conventional chronologies. These are by and large lower than the conventional chronology usually used in the Levant (and see further remarks below).

Even when compared with southern Phoenician sites, the ceramic sequence of Tyre is in most respects very different (e.g., cooking pots and kraters). However, a meaningful relative chronology may be suggested based on the development of the decorated Phoenician wares, on some specific types of plain wares, and on the profile of the Cypro-Geometric imports.

Stratum XIV. We consider the Stratum XIV assemblage to be a mixture of ceramics representing a fairly long duration and hence will not discuss it in detail (other than to justify that pronouncement).

In offering the chronology for this stratum, Bikai ignored the lingering occurrence of "true Late Bronze Age" (i.e., LC IIC and LH III) imports. True, these had dropped to about one-third their frequency in Stratum XV, but they are still present and not in negligible numbers (Bikai 1978: table 13). Given the nature of the deposits, there is no way to determine whether they represent redepositions or are in their proper contexts. Be that as it may, significant numbers of Late Bronze Age pieces should also be expected to occur among the local pieces.

One bowl was defined as "Myc. IIIC" (Bikai 1978: pl. 39:20).[7] Another bowl (Bikai 1978: pl. 41:4) was once considered a Cypriot PWP bowl; according to

[7]Coldstream (1988: 38) compared it to Late LH IIIC and Sub-Mycenaean vessels from Asine, a convincing parallel indeed. Attempting to substantiate a provenance and date for this piece based on the illustration alone would be presumptuous, but it seems that it indeed should be placed in that typological horizon, most probably Sub-Mycenaean (see Mountjoy 1986: 191–92, fig. 254, esp. no. 5; 200, fig. 286). Lately, S. Sherratt (in press: n. 10) compared it to Greek Early Proto-Geometric shapes and suggested that it might be a genuine Greek import. If so, it is the earliest Greek Iron Age piece in the Levant (see below).

TABLE 15. Tyre Stratigraphy and Proposed Dates

Stratum	*Final report (Bikai 1978: 68)*	*Nitsche (1986–1987: 43)*[1]
	1200	
XIV		
————	1070/1050 B.C.E.[2]	
XIII-2 and XIII-1		
————	1000 B.C.E.[3]	
XII		
————	925(?) B.C.E.[4]	975 B.C.E.
XI		
————	850 B.C.E.[5]	900 B.C.E.
X		(X-1)
————	ca. 850 B.C.E.[6]	850 B.C.E.
IX (and VIII)		
————	ca. 800 B.C.E.[7]	800 B.C.E.

[1] Based on his proposed correlation between the Tyre sequence and the Greek conventional chronology, discussed in detail in the text.

[2] The occurrence of a "Myc. IIIC" bowl was a decisive factor in dating Stratum XIV largely to the 12th century. Other considerations were the general resemblance of its assemblage to Hazor XII, Megiddo VI (for its chronology, see below), and to certain types in the Cape Gelidoniya wreck. The lower limit was based on the absence of any glyptics later than the 20th Dynasty and likewise of Cypro-Geometric pottery (though five CG skyphoi were recorded!). The stratum was correlated with LC III (Bikai 1978: 65). See our comments in the text.

[3] The "first" (but see text) occurrence of CG sherds defined the upper limit of Stratum XIII (Bikai 1978: 66), based on Gjerstad's date for the beginning of the Cypro-Geometric period (1050 B.C.E.). A possible gap around the year 1000 was suggested between Strata XIII and XII (but the reasoning was not made explicit).

[4] The Cypriot Bichrome barrel-shaped jug in Stratum XII, which according to Birmingham could not date earlier than 950, was taken to indicate that Stratum XII ended later than that date.

[5] The Proto-Geometric skyphoi with pendent semicircles, occurring "sporadically" from Stratum XI, were dated by Bikai to the first half of the ninth century and served to establish the chronology of this stratum (Bikai 1978: 66; see her n. 23 for the problematics of dating these pieces; and see further discussion of these skyphoi in the text). The Bichrome strainer jug in this stratum has, according to Bikai, Cypriot Bichrome II parallels.

[6] According to Bikai, Cypriot Type III vessels did not appear until Stratum IX (but see discussion of BoR in the text). Strata XII–X were considered to span CG I–II (until 850 according to Gjerstad; 900 according to Birmingham). Stratum X exhibited a similar ceramic profile to XI and thus was dated to a very close chronological range. C. M. Adelman was consulted on the Stratum X-2 Cypriot pottery (Bikai 1978: 68, n. 29) and opined that they belonged chiefly to Type II.

[7] Stratum IX was dated by the following considerations (Bikai 1978: 67): the Greek pottery in it indicated a date later than 850 B.C.E., and likewise the Bichrome juglet in pl. 22A:8 (according to Birmingham's chronology). Most of the Cypriot imports were judged by Bikai to be of Type III, with some earlier and later types. Here Bikai followed Gjerstad's chronology, placing the beginning of CG III at 850 B.C.E.

Iacovou (1999a: 149), it may indeed be Cypriot but of the LC IIIA horizon. However, along with these "early" imports, five fragments of Cypro-Geometric skyphoi were recorded (but not illustrated; Bikai 1978: table 13). Also, Bikai (1978: 56) noted that it was in this stratum that the Bichrome jug could be seen to develop from the pilgrim flask, a phenomenon that at other sites can be placed in Ir1b and is indeed concurrent with the first Cypro-Geometric imports. The period spanned by Stratum XIV, in terms of Cypriot chronology, is thus LC IIC or even earlier, through LC IIIA and IIIB, to CG I, and in Greek terms, LH IIIB to Sub-Mycenaean or even Proto-Geometric (see n. 7). This renders it almost meaningless for the type of precise relative dating we are attempting here.

Suggested Relative Date: The beginning is unclear, but probably still within the Late Bronze Age. Some 12th-century pottery is definitely present. The end is within Ir1alb or (early?) within Ir1b.

Stratum XIII. Within this stratum two substrata were defined. Stratum XIII-2 comprises in fact one stone-lined bin (15) in Unit IC-6C, underneath a

Stratum XII fill. The stratigraphic relationship between the bin and the rest of the deposits, designated Stratum XIII-1, was unclear (Bikai 1978: 9), but there is no real sequence between the two. Stratum XIII-1 contained a deep deposit of large pieces of pottery which hints at some sort of primary deposition. Relative to the other deposits at Tyre, the Stratum XIII assemblages seem to be chronologically homogenous. Table 16 shows that those types that can be cross-dated between Tyre (the heartland of Phoenicia, as it were) and the southern Phoenician littoral display the conjunction of early (Ir1a–Ir1b) and late (Ir1b–Ir1|2) Iron Age I types, a phenomenon that is typical in the Ir1b horizon at Dor and Tell Keisan.

The decorations, too, show the same conjunction of "early" (monochrome) with classic Bichrome—the enclosed-band configuration being much in vogue. (For concentric circles and monochrome decoration, see, e.g., the jar in Bikai 1978: pl. 34:10 with a typical Ir1b–Ir1|2 oval shape; cf. Gilboa 2001a: pl. 5.25:1 for a Dor parallel and an "early" [Ir1a–b] decorative scheme: groups of red bands on the shoulders and on the base of the neck and a wider red band under the handle.) In the same vein, the jug in Bikai's (1978) plate 33:20 has a "late" shape, complete with ring base which does not appear on these jugs/flasks until late in the Ir1b/Ir1|2, but is decorated with horizontal monochrome-red bands. For Bichrome, cf. Bikai 1978: pl. 33:19, 22, 24, 25. Altogether, 138 fragments with Bichrome decorations are recorded—quite a substantial number. Concurrently, there is a significant increase in ridge-necked jugs and of vertical-handled strainer jugs, whose method of decoration is not always specified. This notwithstanding, the phenomenon is definitely at home in Ir1b.

We have already noted that Cypro-Geometric fragments do occur in Stratum XIV. Stratum XIII witnesses a marked increase of WP and BS wares, though. From here on the quantities, in this quite limited excavation, are impressive. Combining the two fills of Stratum XIII, there are 87 WP fragments (31 of them skyphoi) and 14 BS vessels. The illustrated fragments from these strata (Bikai 1978: pls. 34:1–5, 7–9, 12; 37:7) seem to reflect a mid-CG I horizon.

Suggested Relative Date: Ir1b, with a possible overlap into the beginning of Ir1|2.

Strata XII–X. These three strata were very similar in their ceramic contents and thus are presented below as one. The few significant changes between them are noted. A further remark is needed concerning "Strata" X-1 and X-2: These were two separate fills, uncovered in different units of the excavation, and the stratigraphic relation between them could not be ascertained. As is the case with the two substrata of Stratum XIII, here too it should be borne in mind that X-2 is not necessarily earlier than X-1.

Table 17 shows that the best parallel to Tyre XII–X is the Ir1|2 horizon at Dor, though Ir2a corollaries are also numerous. This impression is strengthened by looking at decorations and the imports.

Bichrome, which first appeared in quantity in the previous phase, is now by far the preferred mode of decoration, a phenomenon that parallels the transition from Ir1b to Ir1|2 at Dor. Other parallels are the appearance of ring bases on some of the globular flask/jugs of this class, and the spread of Bichrome decoration from the ubiquitous jugs/rounded flasks to bowls, including, at the end of this range, an example of a deep, externally decorated such bowl. Unlike in the south, horizontal Bichrome decorations on flask/jugs are a rarity at Tyre.

Red slip and burnish among indicative sherds (Jug 7) are negligible (Bikai 1978: table 6); red-slipped and burnished body sherds (of unspecified vessels) retain the same low percentages as found since the Late Bronze Age strata (Bikai 1978: table 1).

Tyre is the only site on the mainland in which the quantities of Cypro-Geometric imports match, indeed surpass, those of Dor. WP and BS vessels continue to be featured (Bikai 1978: table 13: Imports 2, 5, 6, 7). The earliest Cypriot *Bichrome* vessels occur in this range; the only illustrated vessel is a barrel juglet (Bikai 1978: pl. 32:7; from Stratum XII). The earliest attested such vessels at Dor are in the Ir1|2 (but at Dor it is yet unclear whether Cypriot Bichrome occurs in this horizon). Collectively, the Cypriot pottery illustrated from Strata XII–X (Bikai 1978: pls. 23:20; 24:3; 28:1–11; 30:2; 32:7, 10) reflects a CG Ib/II horizon, possibly with some later (early CG III) traits, as at Dor in Ir1|2.

Bikai (1978: table 13A) attributes one fragment of BoR to Stratum X-1. We would tend to disregard this one piece and ascribe the initial definite appearance of BoR at Tyre to Stratum IX, when it becomes somewhat more abundant. The possibility that it actually starts in Stratum X (and thus that this stratum should be extended somewhat into Ir2a) should, however, be borne in mind.

Stratum XI is the earliest stratified context at Tyre that produced Greek (Euboean) ceramics, and further fragments were uncovered in Stratum X-1. They are discussed below.

TABLE 16. Comparison of Tyre XIII to the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*			
			Ir1a(*l*)	Ir1b	Ir1|2	Ir2a
Plate 13, Plate 11	Carinated or somewhat more rounded bowls with hardly any rim treatment, occasionally with bar handles (Bikai 1978: pls. 33:2, 3, 5, 7–9; 37:5, 6, 8).	**Dominant** (80% of the bowls)	*Rare*	**Dominant**	**Nearly exclusive**	**Dominant**
Jar 9	Indistinguishable jars with tall neck, thick rim, either vertical or with an inner bulge (Bikai 1978: pl. 35:11, 13).[1]	**Dominant** (66% of the jars in XIII-1)	Jars like Bikai 1978: pl. 35:13 are **dominant**	Jars like Bikai 1978: pl. 35:13 are present	Jars like Bikai 1978: pl. 35:11 are **nearly exclusive**	Jars like Bikai pl. 35:11 are **dominant**
Jar 10	A late version of the "Canaanite" jar, triangular in shape and with a short, upright, thickened rim (Bikai 1978: pl. 35:12).[2]	**Frequent** (sharp drop in quantities hereafter)	*Rare*	**Frequent**	*Rare*	??
Jars 11–14	Tall, cylindrical necks and outturned rims.	Present (soon to disappear)	**Prolific**	Present	—	—
Included in Jar 11	Wide oval jar with wide cylindrical neck and red-painted bands (Bikai 1978: pl. 34:10).	*At least one*	Only decoration abundant	At least one (Gilboa 2001a: pl. 5.25:1); decoration present.	Similar jars rare, but decoration unattested	??
	Undecorated small lentoid pilgrim flask (Bikai 1978: pl. 37:3).	*One (at least)*	*Rare*	*Rare*	—	—
Jug 9	Tall and ridged neck that can be associated with either Bichrome or Monochrome/monochrome jugs/flasks.[3]	**Significant increase**	—	**Prolific**	**Numerous**	Present
Jug 10	Bichrome jugs with concentric circles (Bikai 1978: pl. 33:22, 24, 25)	**Significant increase**	—	**Prolific**	**Numerous**	**Many**
Jug 11	Strainer-spouted jugs with handle at right angle to the spout, apparently Bichrome (Bikai 1978: table 6, pl. 33: 19).	**Increase in number**	—	**Prolific**	**Dominant**	Present

[1] This category, to our mind, is too broadly defined. The two complete examples differ from each other both in rim and shoulder shape. The jar in Bikai 1978: pl. 35:11, with rounded shoulders, closely resembles the oval jar, which at Dor starts to be important in the Iron 1|2 horizon (but it should be borne in mind that at Dor there are no complete examples for the Iron Ib horizon, and these jars could have started earlier). The jar in Bikai 1978: pl. 35:13, on the other hand, with the straighter shoulders, relatively triangular shape, and sharp carination between shoulders and body, is close to jars at Dor characterizing the late Ir1a–Ir1b horizons. For jars of completely different morphology, still categorized as jar 9, see, e.g., Bikai 1978: pls. 31:19; 41:9. There is thus no way to judge to which types the non-illustrated examples belong.

[2] Though the general shape is attested at Dor from Ir1a to Ir1b, there are no identical jars. The very thick rim shape of this type, however, and its nearly horizontal shoulders (see also Bikai 1978: 45), are among the most conspicuous characteristics of jars in Ir1b contexts at Dor. The parallels are based on these two attributes only.

[3] One complete jug in Stratum XIII-1 is identical in shape to the early ring-based Bichrome jugs from Dor, but bears horizontal monochrome red bands (Bikai 1978: pl. 33:20). Jugs of identical shape and decoration occur at Tell Keisan 9c (e.g., Briend and Humbert 1980: pl. 71:1a).

TABLE 17. Comparison of Tyre XII–X to the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*			
			Ir1a(*l*)	Ir1b	Ir1l2	Ir2a
Plates 13, 11	Carinated or somewhat more rounded bowls with hardly any rim treatment, occasionally with bar handles (Bikai 1978: pl. 26:1–5).[1]	**Dominant** but decreasing	*Rare*	Carinated variety **dominant**	Carinated variety **nearly exclusive**	Carinated variety **dominant**
	Bichrome bowls, either shallow and open (Bikai 1978: pl. 31:8) with enclosed bands inside, or deep bowls with external Bichrome decoration (Bikai 1978: pl. 27:1, 2).[2]	Present	—	—	*Rare*	Present
Jar 9	Broadly defined type (Bikai 1978: pls. 26:13, 15, 17, 18, 21; 31:19).[3]	**Dominant**	—	??	**Nearly exclusive**	**Dominant**
Jar 10	The late "Canaanite" jar, with short, upright, thickened rim.	*Last occurrences*	*Very rare*	**Frequent**	*Rare*	??
Jars 11–12	Tall, cylindrical necks and outturned rims.	*Last occurrences*	**Prolific**	Present	—	—
Juglet 3	Dipper juglets with an angular or rounded base (Bikai 1978: pl. 25:1–4).	**Exclusive**	—	??	**Dominant**	**Dominant**
Jug 10	Bichrome jugs/flasks (Bikai 1978: pls. 31:15, 11; 25:10–15).[4]	**Dominant**	—	**Prolific** (but with rounded bases)	**Dominant**	**Dominant**
Jug 8	Jug with squared-off rim.[5]	*Few*	—	—	—	??
Jug 7	Red-slipped and burnished jugs.	*Few*	—	—	*Rare*	*Rare*

[1] Plate 13, the simple carinated bowl that was dominant in Stratum XIII, is still abundant in the beginning of the range (XII–XI) and then rapidly diminishes in quantities. In its stead Plate 11 becomes the dominant form. This is a very similar form, but almost completely rounded, with a shorter, slightly more thickened rim.

[2] The shallow, open Bichrome bowls appear at Tyre in Stratum XII and at Dor start to occur in Ir1l2, becoming somewhat more prevalent in Ir2a. The deep Bichrome bowls appear in Stratum X at Tyre, and in the south are in evidence from Ir2a.

[3] Jar 9, as already mentioned, is a broad category. The jar in Bikai 1978: pl. 31:19 is a very wide cylindrical jar with slightly concave sides. Jars of similar proportions are attested at Dor from Ir1l2. The jars in Bikai 1978: pl. 26:13, 15, 17, 18, 21 are relatively narrow, with a rounded shoulder and a body that widens a little midway and then tapers toward a small rounded or reinforced base. Jars of these proportions are the hallmark of the Iron 1l2 horizon at Dor, though they are generally somewhat wider, usually provided with a different rim (thickened rather than simple), and seldom have reinforced bases.

[4] The ones with vertical concentric decoration continue to be dominant, comprising jugs with both rounded and ring bases, a phenomenon paralleled at Dor from Ir1l2. Only one Bichrome jug with horizontal decoration is illustrated, from Stratum X-2 (Bikai 1978: pl. 25:9). This is in marked contrast to the abundance of horizontal decorations at Dor (where they start in Ir1l2).

[5] According to Bikai 1978: table 6, it already occurs from Stratum XIII; then there are 7 fragments in XII; 3 fragments in XI, and 14 in X-1. It springs into abundance in Stratum IX. This early distribution seems improbable to us. No examples earlier than Stratum VIII are illustrated, and no information as to the quality of the contexts from which these fragments were retrieved is available. We tend to attribute the beginning of the *meaningful* occurrence to Stratum IX, probably even to VIII.

Suggested Relative Date: Ir1l2; with Stratum X possibly overlapping the beginning of Ir2a.

Stratum IX. Ceramically, this stratum constitutes the beginning of a new era at Tyre. As this era is slightly later than the Dor comparanda, we shall forgo a detailed analysis and merely describe the main ceramic phenomena.

The relative quantities of shallow, open rounded bowls (Bikai 1978: plates 8, 9, 10) increase dramatically, and keep increasing steadily, to become the dominant bowl types (at the expense of the simple carinated bowls; see Bikai 1978: table 3). The quantity of Fine Ware plates increases drastically (Bikai 1978: table 4) and keeps increasing afterward. Practically all the jar types that were attested from the Late Bronze Age through Stratum X disappear, and only Jar 9 is present (Bikai 1978: table 10; but concerning its problematic classification, see our table 16, n. 1).

Decorations: Among the Bichrome vessels, the jug with a squared-off rim (Jug 8) becomes significant now (but see comments in table 17, n. 5). Bichrome bowls also become more prevalent. There is a significant increase in red-slipped and burnished jugs, especially those with a trefoil mouth, followed by even wider proliferation later on, in Stratum VIII. Also, there is a general doubling of the number of

TABLE 18. Sarepta Area II/Trench Y Stratigraphy and Proposed Dates

Stratum	*Final report (Anderson 1988)*
G	
———	1200/1190 B.C.E.[1]
F	
———	1150/1125 B.C.E.[2]
E	
———	1050/1025 B.C.E.[3]
D2	
———	850 B.C.E.[4]

[1] The date of the G/F transition was dictated by the two "Myc. IIIC" bowls, one in Stratum G1 and the other in Stratum F, both considered by Anderson (1988: 385–86) to be early in the IIIC sequence. The Stratum F pottery was considered by Anderson to be very similar to that of G, and he compared it to the ceramic assemblages of Tyre XIV, Megiddo VIIa, Tell Abu Hawam IV, and the Ingot-god sanctuary at Enkomi, which he considered LC IIIA1/2. Another consideration was the occurrence, still, of Myc. IIIB and LC IIC imports (Anderson 1988: 389–90).

[2] According to Anderson, the pottery indicated some overlap with Strata XIV and XIII at Tyre. Other comparable strata were, to his mind, Megiddo VI and part of Tell Abu Hawam IV (Anderson 1988: 395–96). He especially noted the initial occurrence of Bichrome jugs. The one LC III fragment provided an indication that the beginning of the range is somewhere in the late 12th/early 11th century.

[3] The end of Stratum E was established on the basis of the WP I piece, which was sealed under a D2 floor. Based on current Cypriot chronology, this sherd was considered no earlier than the second half of the 11th century (Anderson 1988: 396).

[4] Anderson considered the following phenomena trustworthy as regards to the chronology of Stratum D2: the occurrence of Phoenician Bichrome, which he considered to have started in the 11th century; the existence of combination burnish in D2; and the increase in wheel burnish in D1, which he compared to the beginning of the same at Samaria in Period III and to the increase to dominance in Period IV. He therefore dated the D2/D1 transition to ca. 850. Ashlar masonry, which he determined to have initially occurred in Stratum D, also indicated to him a chronological proximity between Sarepta Y/D and Samaria I–II. Another consideration (Anderson 1988: 407) was the profile of the Cypriot imports: The WP I fragments in D2 pointed to an initial date for this stratum in the second half of the 11th century, possibly somewhat later if a gap between E and D is postulated.

red-slipped and burnished fragments (of unspecified vessels; see Bikai 1978: tables 1, 7). This increase, too, is even more drastic in the next stratum.

Imports: In Stratum IX the distribution of the Cypro-Geometric WP and BS imports remains much the same as in the XII–X range. They are now generally of a CG III horizon (Bikai 1978: 67, pl. 22A:15, 16), and BoR now makes its first certain appearance (concerning the problem of its possible occurrence earlier, see above). It is still a rarity but is much more abundant than in Stratum X, and its occurrence in Stratum IX cannot be doubted. Greek imports in Stratum IX slightly increase in number (Bikai 1978; table 13; and see the discussion below).

Suggested Relative Date: Ir2a.

Sarepta

Ancient Sarepta is identified at the mound of Sarafand, situated on the Lebanese coast, between Tyre and Sidon, about 13 km south of the latter. The Pennsylvania University Museum excavations, conducted in 1969–1974, headed by James B. Pritchard, uncovered a Bronze–Iron Age architectural sequence in two areas ("trenches"). Pritchard published a relatively comprehensive preliminary report (1975), but the detailed analysis of the stratigraphy and artifacts fell to his students.

Trench Y, a small area of about 100 m^2 on the summit of the tell, was the subject of a Ph.D. dissertation by William P. Anderson, eventually published as *Sarepta I* (Anderson 1988). Though severely restricted by a dearth of illustrations, Anderson's type series (partly based on those of the preliminary report: Pritchard 1975), morphological descriptions, and extensive quantitative data constitute one of the most thorough publications of Iron Age pottery in the Southern Levant.

Throughout the late Late Bronze and early Iron Ages (Strata G–D; see table 18), Trench Y retained its character as an industrial-cum-residential area. As at Tyre, Sarepta (in both trenches) exhibits a continuous architectural development, as well as functional continuity throughout this range (Anderson

1988: 380–81, pls. 4–9). No destruction was apparent. One major break in architecture (but not in function) was observed between Strata E and D (see below).

From Stratum G (1320/1290–1200/1190 according to Anderson; see table 18) only scant remains of architecture survived, probably mostly foundations. They are new buildings, but they retain the same orientation as those of Stratum H. A few plastered bins were uncovered, possibly for grains (but no ovens or hearths). A few finds suggested some metallurgic activity and possibly pottery production (Anderson 1988: 380–81, pls. 4, 5). Another notable feature was the abundance of pithoi (which continues in Strata F and E). Most of the deposits of this stratum were separated from those of the previous and next strata by floors (which, however, were not really intact).

In Stratum F the character of the excavated area remained much the same, but the architecture was mostly confined to one square (II-K-20; Anderson 1988: pl. 6). Of the few wall fragments, most were built anew, some exactly on the lines of old walls and one or two reused from Stratum G. Part of a bilobate kiln was uncovered (AA), associated with an open area, a few ash pits, a possible potter's tool, and also one oven. Most of the deposits assigned to this stratum were separated from those of Stratum G by fragmentary floors. Likewise, floor surfaces (though none intact) segregate most of the deposits of this stratum from those above them (Stratum E2).

Within Stratum E, two architectural substrata were determined, of which only the lower (E2) was well-enough preserved to be associated with meaningful artifactual assemblages. Some walls continued in use from Stratum F, and so did Kiln AA, indicating both architectural and functional continuity, but there were also new features. The main architectural feature was a new rectangular fieldstone room (Room 38; Anderson 1988: pl. 7), with an oven. This oven, and two others, uncovered outside the room, led Pritchard to assume that this was now a domestic area or "work area" (Pritchard 1975: 46). Slight modifications to Room 38 were defined as Substratum E1. Substratum E1 was indeed a stratigraphically definable horizon but was poorly preserved and ill defined architecturally, as it had been damaged by the leveling operation of the subsequent stratum (D2), by extensive robbing (Anderson 1988: 133, n. 55), and also, in our time, by two years' worth of erosion until excavations were resumed in 1972. Only scant pottery could be associated with it, and no real segregation between the pottery of the two substrata was possible; it was thus dealt with as one assemblage. The segregation between Stratum E and D2 deposits was somewhat more straightforward, as in a few locations these were separated by floors.[8] The end of Stratum E was considered both by Pritchard (1975: 75) and Anderson (1988: 96) a point of discontinuity, an interference in the G–D continuum (see more on this below). Thus, the pottery of both phases was dealt with as one assemblage.

A "general burning level" underlay the foundations of Stratum D. Two constructive substrata were determined (Anderson 1988: pls. 8, 9; D2 and D1), but there may have been three (Anderson 1988: 97 and n. 56). Of these, only the latest (D1) was well preserved. Stratum D2 consists of three wall stumps, cutting Stratum E walls and deposits, and of a new kiln (BB). From Stratum D1 chiefly two parallel rectangular rooms were preserved, separated by an alley (according to Pritchard [1975: 48] these were open spaces). West of them were two ovens (Pritchard 1975: 49; not on plan). Pritchard (1975: 70) emphasized the new plan in this stratum and postulated a change of function, as Kiln AA no longer existed (but he noted that the kiln may have stopped functioning already somewhat earlier, during Stratum E [Pritchard 1975: 46]). He suggested that the area was transformed from an industrial quarter to a domestic one, as indicated by the many ovens (for a similar interpretation, see Anderson 1988: 365). However, the character of the area remains much the same, as does the orientation of the architecture (indeed, as noted by Anderson, some walls are built directly

[8]However, most of the pottery illustrated by Anderson as representing Stratum E (Anderson 1988: pl. 31) originates in "II-L-20, Level 26 and Level 26*," which are parts of one deposit, a fill above the lowermost floor of Room 38. This deposit was excavated first in 1970 and then again in 1972, separated by a two-year interval during which both erosion and robbing had taken place. Level 26 is its upper part, excavated in 1970, and 26* its lower part, excavated in 1972. This fill, according to Anderson, was an "undifferentiated" deposit, spanning both Strata E and D. Still, he believed that the 1970 season ended exactly on the transition level between Stratum D and Stratum E, and thus the 1970 pottery (Level 26) was assigned to Stratum D and the 1972 assemblage (Level 26*) to Stratum E. Some mixture, per Anderson, should be expected (Anderson 1988: 92 and n. 45). This, however, seems to be somewhat of an understatement; most of the Stratum E pottery illustrated in Anderson's plate 31 should be regarded as possibly intrusive.

above those of E, somewhat offset; Anderson 1988: 397), and most importantly, a new bilobate kiln (BB) is built not far from where the Strata F–E kiln used to be. It thus seems that not too much should be read into the architectural changes of Stratum D2.

As Stratum E1 was badly preserved, Anderson considered the possibility that the lowermost deposits of Stratum D2 (the "general burning level") should actually be attributed to a destruction of E1. Still, he finally dismissed this possibility as the burned level seemed to have related to an oven of Stratum D2 and to the deposits superimposed *on* E1 architecture (Anderson 1988: 133, n. 55). As far as artifactual assemblages are concerned, the difficulty in segregating the D2 deposits from those of Stratum E has already been noted. In addition, in many locations, especially in Unit II-K-20 (an open space), it was impossible to separate between D2 and D1 deposits (Anderson 1988: 97). All in all, artifactually D2 is a very poorly defined stratum.

Generally speaking, for most of the G–D range, most assemblages could be securely defined by floors below and above them. Anderson's stratigraphic analysis (1988: chap. II) presents the considerations underlying his suggested stratigraphy and also includes statements as regards the degree of certainty with which deposits were assigned to the respective strata, as well as assessments of the "cleanliness" of the deposits. It is unclear, however, to what extent ceramics from problematic loci were taken into account in the presentation of quantitative data.

The Late Bronze and Iron Ages of Area II/Trench X, on the northwestern slope of the tell, were the subject of a dissertation by Isaam A. Khalifeh, published as *Sarepta II* (Khalifeh 1988). Though Trench X is indeed a large area (about 875 m^2), the stratigraphy and artifactual sequence as constructed by Khalifeh are based on an analysis of only four grid units, which were considered relatively undisturbed (Khalifeh 1988: 2, pl. 23), i.e., 100 m^2. Thus the stratigraphic associations of many finds from this area remain unknown, including those of many of the pottery vessels published by Pritchard (1975; 1988) and most of the imports studied by Robert B. Koehl (1985) in his Ph.D. dissertation and published as *Sarepta III*. The Trench X quantitative tables are not accompanied by illustrations at all, and thus the typological attributions cannot be evaluated. Also crucial for our purposes here is the fact that the latter part of the sequence (the Ir1|2 transition) is incorporated within Khalifeh's Period VII, spanning two centuries and possibly more (Khalifeh 1988: 46). We shall thus use the Trench Y data and terminology as our primary source, referring to Trench X data where appropriate.

Stratum F. This ceramic horizon is clearly earlier than the chronological range of interest to us here and is therefore discussed only briefly. The pottery of this stratum was nearly the same as that of the preceding one (G), with only a few new types in evidence. The imports, similarly to Stratum G1 but in more restricted quantities (see Anderson 1988: table 18), include four fragments recognized as Cypriot LC II(C?) wares, an unspecified number defined as LC III, and three as "Mycenaean." One sherd is illustrated: a "Myc. IIIC" deep bowl (FS 284) with a solid dark red interior, and a black, matte antithetic spiral outside (Anderson 1988: pl. 30:10). Like a bowl from Stratum G (Anderson 1988: pl. 28:19), this is either an early or mid-IIIC specimen.

The parallel horizon in Trench X, Period V (Khalifeh 1988: 110), is the lowest ebb of imports of any sort in this area. Typologically, the latest are a LH IIIC stirrup jar (Koehl 1985: no. 191, fig. 8), a LH IIIC bowl (no. 192, figs. 8, 20) and another bowl (no. 198, figs. 8, 21) considered by Koehl (1985: 44) to be "derivative Granary Style," which seems highly probable (see Mountjoy 1986: fig. 253). Most of the other "Myc. IIIC" and related wares from Trench X cataloged by Khalifeh originate in contexts whose stratigraphic associations have not been elucidated yet and thus do not concern us here (see also discussion in Sherratt in press).

There are no new insights we can offer as regards the chronology of these two strata. On current "Myc. IIIC chronology," the G1–F continuum indeed seems to span at least the first three-quarters of the 12th century. This horizon, by its imports, definitely starts earlier than the Tel Dor sequence discussed here, falling somewhere within the transitional LB|Ir1 (and the possible gap preceding early Ir1a) and possibly paralleling also early Ir1a. It is, however, difficult to pinpoint its end, and its terminal date as proposed in table 21 is conjectured; indeed this is the least secure transition in this table. As regards Tyre, though Stratum XIV cannot be considered a meaningful chronological assemblage (see above), we concur with Anderson (1988: 389 and n. 150) that some of the pottery there is definitely later than that in Strata G–F in Trench Y. This is confirmed by the

TABLE 19. Comparison of Sarepta II/Y Stratum E to the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*			
			Ir1a(*l*)	Ir1b	Ir1|2	Ir2a
X-28, X-29	Carinated or slightly carinated bowls with simple rims (Anderson 1988: pl. 31:12, 14, 16).	**Significant increase**[1]	*Rare*	**Dominant**	**Nearly exclusive**	**Dominant**
K-4, K-5, K-6, K-8	Kraters with ledge rim (Anderson 1988: pl. 31:1).	**Many** (but decreasing)[2]	Present	Present	—	—
K-13, K-3, K-7	Kraters with simple, upright, thickened rim (Anderson 1988: pl. 31:3, 4).	**Many**	**Common**	**Abundant**	**Dominant**	**Dominant**
K-9, K-10, K-11	Kraters with carefully molded hammer-shaped rims (Anderson 1988: pl. 31:2).	**Many** (but decreasing)[3]	Present	Present	*Very rare*	—
SJ-8, SJ-7	Jars with tall, cylindrical neck and inner concavity under the rim (Anderson 1988: pl. 31:6; Khalifeh 1988: table 9).	**Dominant** (last significant appearance)	**Dominant**	Present	*Extremely rare*	??
SJ-12	Jars with short, relatively thin, upright rim (Anderson 1988: pl. 31:7).	**Significant increase**	*Very rare*	Frequent	*Rare*	??
SJ-11, SJ-13	Jars with short, heavy, upright rim with inner thickening.	**Significant increase**	*Very rare*	Frequent	*Rare*	??
	"Wavy-band" pithoi of Cypriot derivation.	Last appearance[4]	**Many**	Present	*Apparently extinct*	—
PF-4, PF-5	Lentoid pilgrim flask of Bronze Age type (Anderson 1988: table 11).	Last significant appearance	**Abundant**	*Rare*	—	—
	Bichrome strainer jugs (Anderson 1988: pl. 31:10).[5]	*First appearance*	—	**Abundant**	**Dominant**	Present

[1] These two types make up 20% of the bowls, but there is still a meaningful quantity of other types, mostly with more carefully molded rims and of Late Bronze Age ancestry (e.g., Anderson's types X-6, X-17, X-21), which, however, decrease in quantity. The low-input bowls never become as dominant at Sarepta as they are at the other sites. Still, Anderson (1988: 391) considered the increase in X-28 the most meaningful change vs. Stratum F.

[2] These types are very long-lived at Sarepta, attested in Strata G–D. K-4 only starts decreasing in D2.

[3] For analogies at Tell Keisan, see, e.g., Briend and Humbert 1980: pl. 78:1, 1a.

[4] No complete examples are published, but "Heavy rolled rims" (RR-1, RR-2), which should be associated with these pithoi, are very significant, as they were in previous strata and as they are in Trench X, Period VI. They quickly disappear after Stratum E (Anderson 1988: table 8). Stratum E also witnesses the last significant occurrence of heavy body sherds with plastic decoration (Anderson 1988: table 21), and of the stump bases (B-17; Anderson 1988: table 16) that are also primarily associated with these pithoi.

[5] Anderson (1988: 393 and table 35) notes three sherds each for Strata E, D2, and D1. It should be noted, however, that the only such sherd illustrated from Stratum E comes from the problematic Level 26*, which surely incorporates intrusive material. See text nn. 8, 9.

later skyphos there and by the Cypro-Geometric sherds.

Suggested Relative Date: LB|Ir; end unclear, but prior to Ir1a|b.

Stratum E. As table 19 shows, the horizon best fitting most of the typological phenomena exemplified in Sarepta II/Y Stratum E (and II/X Period VI) is Ir1b. As regards decoration, the overwhelming majority of the pottery in this stratum (about 90%) is undecorated. This situation, however, changes soon. Generally speaking, this stratum witnesses the end of the distribution of most Late Bronze Age–derived types (other than the types enumerated in table 19, this is also attested by the cooking pots; Anderson 1988: table 13). Stratum E apparently witnesses the first clear evidence of genuine Phoenician Bichrome,[9]

[9] As is evident both from Anderson's discussion of the decorated pottery and the illustrations, he employs the term "Bichrome" in the strict technical sense. Thus the specific decorative syntax we labeled Bichrome was not differentiated in his distribution charts from other two-colored designs—which do of course exist earlier (and alongside, and later). As for (the few) illustrated examples, the Bichrome mushroom jug in Anderson 1988: pl. 31:15, originating in the problematic Level 26*, is surely intrusive,

which was indeed Anderson's assessment, also specifically regarding Bichrome strainer jugs (Anderson 1988: 394).

According to Anderson, Stratum E is the first in which there are red-slipped and burnished fine-ware bowls, although they are significantly less numerous than in D (Anderson 1988: 393, table 49). In fact, only five such sherds were attributed to E (Anderson 1988: table 48A), and it is hard to assess whether this is significant. (For a similar dilemma regarding the early appearance of red slip and burnish at Tyre, see above.)

Only a handful of imported sherds were attributed to Stratum E, of which two were almost certainly redeposited LC IIC pieces. In addition, a LC III Decorated Ware fragment is mentioned (Anderson 1988: 267) but not illustrated. There was also a WP I amphora (Anderson 1988: pl. 32:2), considered by Anderson (1988: 394) to be early WP I. The Period VI deposits in Trench X did not produce any imports.

Suggested Relative Date: Ir1a|b and Ir1b, with a possible earlier beginning.

The E/D Gap. As early as the preliminary report, Pritchard suggested quite a lengthy gap between Strata E and D, after which habitation was resumed, in the excavated areas, in the ninth century (Pritchard 1975: esp. pp. 64, 70). He argued for a break in ceramic tradition before Stratum D. Anderson (1988: 365–66, 393–94) did not consider the break to have been "complete" and posited a transitional phase, comprising some of the higher architectural elements in E and the lower ones in D. According to him, however, this phase cannot be defined ceramically. In Trench X too, a contemporary change in architecture was evident between Periods V and VI, but there also there was both an obvious functional continuity and by and large a ceramic one (Khalifeh 1988: 113).

The existence of a gap between the E and D assemblages, as suggested by all the Sarepta investigators, is indeed borne out by the present analysis. As Stratum D2 best parallels the Ir2a phases at the other sites (see below; perhaps even not the very beginning of Ir2a), this gap seems to span (at least most of) the chronological phase that was termed transitional Ir1|2 at Dor, paralleling early Stratum 8 at Tell Keisan and Strata XII–XI and possibly also X at Tyre. Not too much should be read into this gap, other than the chances of site formation and excavation, as already claimed by Anderson.

Stratum D2. This is the first Iron Age stratum in which an increase of decorations and elaborate surface treatments is attested. There is an increase in painted wares, especially bichrome. Most significantly, the "true" Bichrome decoration now appears on bowls, and horizontal decorations (both one- and two-colored—though whether "true" Bichrome cannot be ascertained, but probably may be assumed) now appear on some of the globular jugs (Anderson 1988: table 35). Both of these traits start only in the Ir1|2 at Dor and become more prolific in Ir2a. This is also attested at other Phoenician sites, and it is clear that Bichrome bowls are even more prolific in Iron Age IIB (see Gilboa 1999a: fig. 14).

Red-slipped and burnished rims increase somewhat in relative frequency (but much more drastically so in Stratum D1; see Anderson 1988: e.g., tables 19, 20, 45, 47), the technique of preference being combination hand-and-wheel burnish. Note, however, that the total amounts of red-slipped and burnished wares (about 4% of all rims) is pretty low when compared with roughly coeval sites in inland Palestine (or in Philistia).

Concomitant to both of these, there is a decrease of 17 percent in plain wares (Anderson 1988: 399; and see more on this below). These developments are even more conspicuous in Stratum D1, when only about half of all rims are undecorated (Anderson 1988: 402). An identical process is attested in Trench X, Period VII (e.g., Khalifeh 1988: 133, 138, table 20B), but within this period the horizons represented in Trench Y by Strata D2 and D1 could not be segregated.

Regarding imports, Stratum D2 produced only four Cypriot sherds, of which three could be identified: a WP (I?) bowl (Anderson 1988: pl. 32:19) with a ring base rather than the usual trumpet base of such bowls; another WP (I?) fragment, possibly of an amphora (too small to be properly identified; Anderson 1988: pl. 43A:11); and a Bichrome III

as concluded by Anderson as well (Anderson 1988: 394). A Bichrome strainer-spouted jug with pendent triangles (Anderson 1988: pl. 31:10), which typologically might well fit into this horizon, also comes from the same context, and so is suspect too. All in all, Anderson (1988: tables 35, 36) attributes 13 "two-colored" pieces to Stratum E, a modest amount but a significant increase from previous phases. These include sherds of five "Bichrome" flasks; five "Bichrome" jugs/flasks with concentric decoration (his "style III"; Anderson 1988: pl. 44b:7), and one neck.

TABLE 20. Comparison of Sarepta II/Y Stratum D2 to the Early Iron Age Horizons at Dor (Selected Types)

Type	*Description and comments*	*Frequency*	*Parallels at Dor*			
			Ir1a(*l*)	Ir1b	Ir1|2	Ir2a
X-28	Simple carinated bowl (Anderson 1988: pl. 32:16, 17).	Most frequent (approx. 25% of the bowls)[1]	*Rare*	**Dominant**	**Nearly exclusive**	**Dominant**
X-1, X-2	Shallow, sharply carinated bowls with long outturned ledge rims of late Iron Age type.	First appearance	—	—	—	—
	Bowls with Bichrome decoration (Anderson 1988: pl. 32:9, 10).	First appearance [2]	—	—	*Rare*	**Dominant**
K-14, K-15	Kraters with convex walls (Anderson 1988: pl. 32:12).[3]	Most frequent	—	—	—	—
SJ-8, SJ-7	Jars with tall, cylindrical necks.	*Virtually disappeared*	**Dominant**	Present	*Very rare*	??
SJ-11, SJ-13	Jars with short, upright rim (Anderson 1988: pl. 32:7, 8).	**Dominant**[4]	*Very rare*	**Frequent**	*Rare*	??
SJ-10a	Thickened, upright rim with inner concavity, on a short neck[5] (Anderson 1988: pls. 36:1, 3; 49).	Initial occurrence	—	??	**Nearly exclusive**	**Frequent**
	Small, painted, globular jugs (Anderson 1988: 399; table 35; pls. 32:5:44B:1).[6]	Some	—	**Many** (but no horizontal decoration)	**Many**	**Many**
	Painted strainer-spouted jugs with pendent triangles (Anderson 1988: 399; table 35).[7]	Still in evidence	—	Present	Present	??

[1] These types are much more dominant at the southern sites (from Ir1b to Ir2a) than at Sarepta. At Tyre, too, this type (PL 11, PL 13) is dominant through Strata XIII–X. In Stratum IX there, it is still very frequent (48% of the bowls), and then quantities start to diminish. At Sarepta these bowls all but vanish (2.6%) by the next stratum (D1).

[2] 15% of the bowl rims in D2 have red-and-black decoration (vs. 1.3% in E); but this is the first stratum for which the Bichrome syntax on bowls is illustrated (see text n. 9 for the difficulty in differentiating between "true" Phoenician Bichrome and other two-colored schemes in Anderson's quantitative tables.

[3] Both types have analogies at Tyre, especially in Strata X–VIII (DB 4 and DB 3, respectively; Bikai 1978: pl. 92, table 5). There are no meaningful analogies at Dor.

[4] This is in marked contrast to the situation at Dor, where these jars are the hallmark of Ir1b, rapidly diminishing in quantities later. At Tell Keisan similar rims continue until Stratum 6, of Iron Age IIB, but on different types of jars, e.g., Briend and Humbert 1980: pls. 48:4; 50:1, 2; and at Tyre they are rare throughout the Iron Age and do not occur at all after Stratum X (Bikai 1978: table 10).

[5] This is the only rim type that may belong to the oval jars which at Dor characterize the Ir1|2 and Ir2a, but this cannot be ascertained as no complete examples were found at Sarepta. It occurs, albeit not frequently, throughout Strata D2–C1.

[6] All are either body or neck fragments, so exact typology is impossible. Some bear concentric decoration and others horizontal; at least two of the latter are "Bichrome" (Anderson 1988: table 35); see n. 2 above.

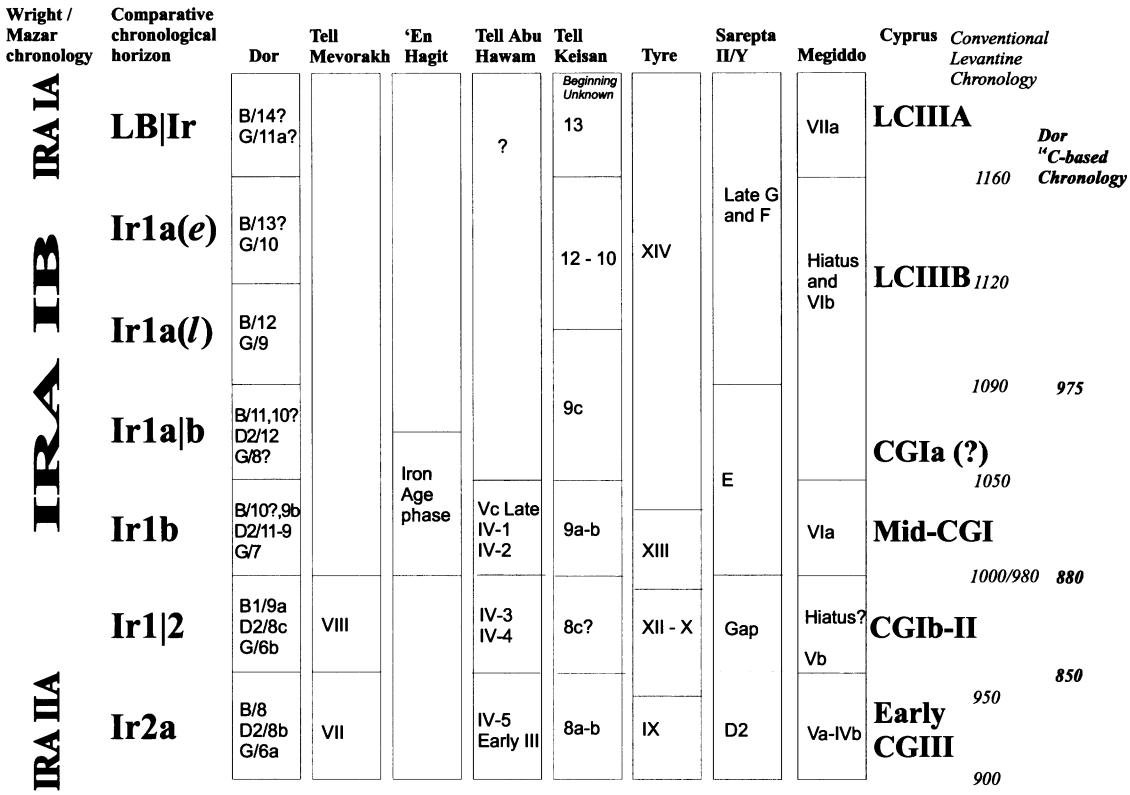
[7] Exact methods of decoration unclear (see n. 2 above).

barrel juglet (Anderson 1988: pl. 32:20). No Black-on-Red sherds were found.

The following seems to us to be the ceramic phenomena in D2 that are the most significant for comparative chronology (see also table 20): (1) the disappearance of Late Bronze Age–derived forms; (2) the abundance of simple carinated bowls; (3) the significant decrease in kraters of all sorts; (4) the first significant increase in all sorts of surface treatment, including burnished red-slip, especially on bowls, and the concomitant general decrease in plain wares; (5) the first clear occurrence of bowls with Phoenician Bichrome decoration; and (6) the occurrence of a Cypriot Bichrome III barrel juglet, which cannot be earlier than the beginning of the late CG II/early CG III. This is not much to go by but does reflect an Ir2a horizon.

Two reservations should be added here. The first is that, of the sites under consideration in this work, this is the only Ir2a assemblage without Black-on-Red in it. This may well be due to the (mis)fortunes of excavation and the general poverty of imports at Sarepta II/Y (when compared with sites such as Dor and Tyre). Even in the following stratum (D1), which surely is not earlier than Ir2a, only five such were found (Anderson 1988: pl. 34:14, 15). The second reservation is that the correlation of this stratum with the Ir2a horizon relies heavily on the increase in red slip and burnish. Otherwise, Stratum D2 could also fit the slightly earlier Ir1|2 horizon. This phe-

TABLE 21. Cross-Dating of the Principal Stratigraphic Sequences for the Iron Age Horizons at Dor (Selected Types)



nomenon could be argued to have started earlier, or to have been more widespread in the Phoenician heartland than in its periphery. If this were the case, then indeed an earlier, Ir1|2 date for Stratum D2 can be argued for. For the time being, however, a correlation with Ir2a seems to be a much better fit. This may find corroboration in Anderson's statement (1988: 405) that the Stratum D2 pottery is even more similar to that of D1 than is evident from his analysis. In fact, the occurrence of "genuine" Iron Age II types, such as the wide cylindrical SJ 14 and shapes like bowls X-1 and X-2, which will typify the late Iron Age, may indicate that Stratum D2 is even somewhat later (or ends later) than the Ir2a horizon at Dor and the other surveyed sites.

Suggested Relative Date: Ir2a, possibly ending somewhat later.

The Southern Phoenician Sequence and Correlation with Megiddo

Table 21 summarizes the suggested relative chronology framework presented above. This table also includes 'En Hagit (Wolff in press) and Tel Mevorakh (Stern 1978), both situated very close to Dor, which were not explicitly discussed above. As stated, the division of the early Phoenician Iron Age into subhorizons is based on the Tel Dor stratigraphy, which is the most detailed one for the latter part of the early Iron Age—namely, the late Ir1a to Ir2a horizons (Tell Keisan offers a better sequence for the earlier part, i.e., LB|Ir to early Ir1a horizons; see above). As stated above, this stratigraphy mostly results from events that may be of local nature and thus in the present context should be perceived only as a chronological heuristic scheme.

A detailed ceramic correlation of this proposed sequence with further sites and other regions is by far beyond our scope here, but a suggested correlation with the sequence at Megiddo is presented in table 21. Megiddo has always been considered a cornerstone of Iron Age chronology (see Mazar 1990: 301, 372, tables 6 and 7 for conventional dates of Megiddo and comparable strata). It is included here in order to provide a benchmark through which the relative sequence proposed here can be correlated to other parts of the Southern Levant (see in particular Zarzeki-Peleg 1997a; 1997b for correlations of Megiddo with "northern Israelite" sites).

Though the ceramic assemblages of the southernmost sites here (Dor and Tell Keisan) are generally similar to those of the western Jezreel Valley, this

similarity is not close enough to enable a correlation based on plain wares, other than in a most general manner. A correlation between the Dor and Tell Keisan sequences and that of Megiddo is further hampered by two other facts. First, the stratigraphic sequence at Megiddo is as yet less refined. At Dor the early Iron Age sequence (including Ir2a) is represented by seven typologically distinct horizons, at Tell Keisan by seven to eight, whereas Megiddo offers for this period five horizons (VIIA, VIB, VIA, VB, VA–IVB, of which VIB and VB are very poorly known). The second is the lack of quantitative data for all Iron Age assemblages published to date for Megiddo, coupled with the predilection to publish only complete vessels, and the numerous problems regarding the stratigraphic provenance of many pots in the Oriental Institute's excavations.

No concrete insights may be offered regarding correlations of the earliest part of the Iron Age (Stratum VIIA at Megiddo) with the Phoenician sites discussed here. The crucial issue is the evidence of relative chronology provided by Philistine Bichrome pottery. This is complicated by the fact that local hand-painted pottery may easily be mistaken for Philistine Monochrome or Philistine Bichrome (see above and Sharon and Gilboa in press). Genuine (i.e., made in Philistia) Philistine Bichrome occurs as of the Ir1a(*e*) horizon (Phase 10 in Area G at Dor; Stratum 12 at Tell Keisan). Correlation with Megiddo depends on the stand one takes in the debate over the earliest contexts in which Philistine Bichrome occurs there—Stratum VIIA as per T. Dothan (e.g., Dothan 1982: 70–76) or VIB as per A. Mazar (1985b). We favor the latter option, and this means that for the time being Dor has not provided clear assemblages that parallel Stratum VIIA at Megiddo. They are either obscured in the sequence of late Phase 11 in Area G (transitional LB|Ir), or else one must postulate some gap in this area. The end of Stratum 13 at Tell Keisan, with its "Myc. IIIC" vessel and other vessels that stylistically reflect the Late Cypriot IIIA horizon (see above; but apparently not its very beginning) can generally be correlated with the end of VIIA at Megiddo, and likewise, for the same reasons, Stratum F at Sarepta II/Y. As explicated above, Tyre XIV encompasses too wide a range but probably includes this horizon too.

The assemblage of Stratum VIB at Megiddo (= Level F-6 of the renewed Tel Aviv University excavations at the site; see Finkelstein, Zimhoni, and Kafri 2000: 244, table 11.1) is hardly known. This stratum should fall after the LB|Ir horizon and is earlier than Ir1b (see below), and thus must parallel the Ir1a and Ir1a|b sequence, or part of it. This equation is in indeed supported by Philistine Bichrome pottery, which unambiguously appears in this stratum. Some of the other ceramic forms of this horizon find close corollaries in Phoenicia (e.g., in Loud 1948: the jug pl. 73:2, the jars pl. 73:6, 8, 10; the bowls pl. 74:2–5; the krater pl. 74:12; the flask pl. 74:14), and they all fit the Ir1a horizon well but could be also slightly earlier or later.

The extensive Stratum VIA destruction assemblage at Megiddo (the destruction conventionally attributed to David) provides a clear peg of relative chronology (it equals Levels F-5 and K-4 of the new excavations). For our purposes, the most conspicuous phenomenon in this stratum is the first abundant appearance of Phoenician Bichrome (e.g., Loud 1948: pls. 72:9; 75:22, 23; 80:2; 86:1, 6, 9). This is the horizon at Megiddo that witnesses the transition/overlap from monochrome and two-colored flasks/jugs and strainer-spouted jugs (e.g., Loud 1948: pls. 80:1, 4, 5; 86:5, 7, 8) to the Bichrome version of these containers, both with regard to decoration and morphology. This transition occurred at all investigated sites within the Ir1b horizon. The Cypriot WP I bowl from this stratum (Loud 1948: pl. 78:20) fits this horizon perfectly, as do the plain-ware vessels, but there are not enough illustrations of the latter to assess whether they perforce belong to this horizon.

The lion's share of the published Megiddo VIA pottery originates from its destruction deposits, and the date of the beginning of this stratum is still obscure. Thus, though in table 21 Megiddo VIA is correlated with the Ir1b horizon, its beginning could have been earlier.[10]

The next chronologically crucial peg at Megiddo is the initial appearance of Black-on-Red (BoR) and other CG III imports. These vessels are definitely present in Stratum VA–IVB (e.g., Lamon and Shipton 1939: pls. 5:123; 8:176; 17:87; Loud 1948: pls. 88:6–9; 90:1–3). This stratum, with its public structures—"Palaces" 1723 and 6000 (and, according to some, fortifications and gates)—is conventionally ascribed to the early monarchic period, more specif-

[10]In earlier publications (Gilboa 1989:205; 1998: 413), the Ir1|2 horizon at Dor (B1/9; G/6a; D2/8c) was equated with Megiddo VIA, etc. After extensive excavation of earlier deposits, it became evident that this was erroneous, that the Ir1b parallels the Megiddo VIA horizon and that Ir1|2 is somewhat later.

ically to Solomon. The CG III horizon it reflects indicates that this stratum—or at least its end—cannot antedate our Ir2a horizon. The crucial question, however, is whether CG III is attested at Megiddo *prior* to the major VA–IVB constructions.

A few BoR sherds were mentioned by the Oriental Institute excavators as originating in Loci 1710, N = 1710 and -1693, supposedly sealed under the lime floor (1693) of the "Palace" 1723 courtyard of Stratum VA–IVB (for a discussion of these loci, see Schreiber 2003: 94–95; see also Finkelstein, Zimhoni, and Kafri 2000: fig. 11.27: 2, 5, 6).[11] The corresponding Stratum K-3 of the renewed Megiddo excavations does not as yet contain BoR; the one vessel attributed to this stratum in the excavation report (Finkelstein, Zimhoni, and Kafri 2000: fig. 11.18:10) does not in fact belong to it (I. Finkelstein, pers. comm.). Another case in point is a Cypriot Bichrome bowl at Megiddo (Lamon and Shipton 1939: pls. 30:141; 61:141). It was found in Locus 1701, also a room under Courtyard 1693. Though often referred to as Bichrome II, this bowl is best classified as Bichrome III. If indeed the Cypriot early CG III horizon, which equals our Ir2a (see above), is already represented under the floors of Megiddo VA–IVB, this has far-reaching implications. It means that Stratum VB ended after the beginning of Ir2a. The data, however, especially the exact contexts of the above-mentioned fragments, are not conclusive enough. In particular, A. Zarzecki-Peleg suggests that Courtyard 1693 may in fact have been constructed *later* than "Palace" 1723 and thus pottery found under it may in fact belong to VA–IVB (pers. comm.; the data are included in her forthcoming Ph.D. dissertation).

As for the local assemblage of Stratum VB, anyone leafing through the Megiddo reports will immediately perceive both the major differences between the destruction assemblages of the preceding stratum, VIA, and those of the following, VA–IVB, and the fact that Stratum VB is much closer in character to VA–IVB than to VIA, a fact acknowledged by many (see Shipton 1939:5; Finkelstein 1999: 38; Finkelstein, Zimhoni, and Kafri 2000: 280, 283).

Thus we tend to correlate Stratum VB with the Ir1|2 horizon; ending it within Ir2a cannot be substantiated at the moment (which would imply, of course, that the VA–IVB "Solomonic" constructions postdate the beginning of our Ir2a).

The substantive differences between the destruction assemblages of VIA and those of VB and VA–IVB point to some chronological gap between the ceramic assemblages of VIA and VB, which are mostly associated with the end of these respective strata. This may mean an occupational gap (see also Shipton 1939: 5; Wightman 1985: figs. 5a, 5b; Finkelstein 1999: 38; Finkelstein, Zimhoni, and Kafri 2000: 300). The alternative would be to perceive Stratum VB as a very lengthy occupation, of which, ceramically speaking, we know only the very end.

ABSOLUTE CHRONOLOGY

Our LB|Ir horizon provides a terminus post quem for the early Iron Age Phoenician sequence presented here. Early to Middle "Myc. IIIC" vessels occur in this horizon in Stratum F (and G) at Sarepta and Stratum 13 at Tell Keisan. The painted krater in Phase G/11 cannot be closely enough dated on stylistic grounds. For the LH IIIB/IIIC and LC IIC/IIIA transitions ca. 1190/1180 B.C.E., see above. Thus, without being too specific, vessels reflecting a typological horizon which do not reflect the very beginning of LC III would probably date no earlier than ca. 1160 B.C.E. The crucial site for dating the imported "Myc. IIIC" ceramics in the Southern Levant, is, of course, Beth Shean, where such vessels and sherds occur in Stratum Lower VI of the Pennsylvania excavations (Strata S-4 and S-3 of Mazar's excavations; starting in Stratum S-4; Mazar 2002: 269–70; pers. comm.). This is definitely a 20th Dynasty stratum, and as is well known, some of its buildings were erected during Ramesses III's reign (low chronology: 1173–1142/1175–1144; Kitchen 2000: 42). The crucial and yet unanswered questions are when in this lengthy reign (or even before that) was this stratum constructed, when does it end, and to which period in this stratum's existence do these fragments belong. As we know that Myc. IIIC occurs relatively early within it (Stratum S-4), we opt for a midpoint position, assuming that the pieces belong around the middle of Ramesses' reign, arriving again at ca. 1160 B.C.E.[12] This then would be the terminus post quem for the beginning of the period

[11] Note, however, that the published illustrations there are not of these specific potsherds but of complete vessels from Stratum VA–IVB.

[12] Assigning this pottery at Beth Shean a post-Ramesses VI date, as suggested by Finkelstein (1996: 175), seems to us too late.

designated here early Ir1a. It may in fact be even lower than that, but this cannot be substantiated. For the entire temporal range under consideration here, the Ir1a horizon until Ir2a, Phoenicia does not offer any pegs for absolute chronology. Needless to say, this is true also for all its neighbors, which is the situation that generated the current chronological debate in the first place (see above).

To anchor the sequence achieved by stratigraphy and ceramic typology to an absolute time scale, we undertook a systematic program of collection of organics for radiocarbon dating from all stratigraphic phases and typological horizons at Dor. Our first consideration was to sample contexts whose relative dating is impeccable, meaning an unambiguous placement in the stratigraphic sequence, minimal postdepositional disturbance within the context, and clear association with an artifact assemblage large enough to be representative. Wherever possible, specimens for radiocarbon dating were chosen only from in situ or other primary contexts (table 22). Where none could be obtained, we sampled contexts sealed by floors or features of the immediately following phase. Furthermore, we did not use contexts whose stratigraphic phasing is in question (e.g., a pit, even containing primary refuse and abundant organics, whose stratigraphic interface to a single architectural phase was not clearly definable). We also confined ourselves to contexts bearing large representative pottery assemblages (and only these actual assemblages are displayed in figs. 2–13). Thus the association between the ^{14}C dates and the ceramic sequence is not dependent on any external considerations.

With the aim of reaching measurement accuracy in the ±25 to ±40 (radiocarbon) year range, conventional radiometric counting was the preferred analytic method, rather than the less-precise AMS (atomic mass spectrometry) technique. We set an acceptability threshold of 3 g clean carbon (after treating the specimen with hydrochloric acid and sodium hydroxide) while aiming for an ideal of 7 g carbon per specimen. The specimens were analyzed at the Weizmann Institute's ^{14}C facility (WIS; for lab procedures, see Gupta and Polach 1985). To assure the desired precision, each sample was counted for 3,000 minutes.

The size-of-sample demands nearly precluded the use of samples from short-lived organic materials (e.g., seeds, reeds). Only rarely (RT-2960 and RT-2961) was it possible to obtain a sufficient quantity of short-lived materials (olive pits).[13] As the carbon in charcoal originating in wood (especially constructional lumber) might be decades (and sometimes centuries) older than the moment the specimen is finally deposited in the soil, our dates should be regarded as termini post quem. As it happens, these prove to be considerably later than the conventional historical dates, and this cannot be explained away by old-wood effects.

Table 22 shows the first 22 radiometric determinations from Dor (for a preliminary presentation, see Gilboa and Sharon 2001; Sharon 2001). Some minor changes of nomenclature have been introduced in the present article, differing from these previous publications: the horizon termed in the 2001 publications "Ir1a" has been split into two (early Ir1a and late Ir1a). All of the samples designated in 2001 as "Ir1a" belong to the *late* Ir1a in the present terminology. Also, we have introduced here a transitional phase, Ir1a|b, not present in the previous publications. Only one of the samples (RT-2929) originates from a context called there "Ir1b" but redesignated here Ir1a|b. Since this is not enough to represent that horizon, we ignore the differences between "Ir1a|b" and "Ir1b" for the purpose of absolute dating at this juncture.

For the earlier publication, we developed a mathematical model that uses a loss-function (actually, any of several loss-functions) to calculate a best-fit date for each transition between two periods in a sequence. Table 23 summarizes these results. Rather than repeat the same analysis, we present here a better-known mathematical model, calculated with the industry-standard Oxford Calibration Package (Bronk-Ramsey 1994; 1995; 2001). This program uses Bayesian inference (Buck, Litton, and Smith 1992; Buck, Cavanagh, and Litton 1996) to assign *posterior probabilities* (or degree of certainty) to statements of the type "the date of event X is *nnn*" given a data set and a set of constraints on it (in this case, the order imposed by the typo-stratigraphic sequence). The results of this analysis are given in figure 18. Of special interest are the probabilities of the *boundary conditions* (i.e., the statements "The boundary between the group defined as 'Ir1a' and

[13] In a currently conducted radiocarbon study of numerous early Iron Age sites in Israel, we *are* using short-lived samples, employing high-precision, multiple-target AMS.

TABLE 22. Radiocarbon Samples from Dor

Lab #	*Locus*	*Phase*	*Provenience*	*Material*	*Context*	*Date*	*BP*	*σ*	*Calibrated range (67%)*[1]	*Calibrated range 95%)*	*Horizon*
RT-2923	L7926	B1/12	From destruction debris (possibly constructional wood)	Charcoal	In situ	2875	±	25	1080–1000 B.C.E.	1120–970 B.C.E.	Ir1a
RT-2924	L7926			Charcoal	In situ	2870	±	25	1070–990 B.C.E.	1120–950 B.C.E.	
RT-3109	L11089			Charcoal	In situ	2685	±	25	830–800 B.C.E.	890–800 B.C.E.	
RT-2925	L18265	G/9	From destruction debris (possibly constructional wood)	Charcoal	In situ	2795	±	50	1010–890 B.C.E.	1050–820 B.C.E.	
RT-2927	L18265			Charcoal	In situ	2785	±	40	990–890 B.C.E.	1000–830 B.C.E.	
RT-2928	L18265			Charcoal	In situ	2770	±	40	930–830 B.C.E.	1000–830 B.C.E.	
RT-3111	L18033			Charcoal	In situ	2860	±	25	1050–970 B.C.E.	1120–940 B.C.E.	
RT-2929	L18278	G/8	One floor above destruction	Charcoal	Sealed	2850	±	40	1050–930 B.C.E.	1120–910 B.C.E.	Ir1a|b
RT-3113	L9899	G/7	One floor above the former	Charcoal	Sealed	2795	±	40	990–900 B.C.E.	1010–830 B.C.E.	Ir1b
RT-3114	L19212	D2/10	Lower phase of the "mudbrick building"	Charcoal	Primary	2820	±	55	1050–910 B.C.E.	1120–830 B.C.E.	
RT-3107	L19207			Charcoal	Primary	2840	±	55	1070–920 B.C.E.	1160–840 B.C.E.	
RT-3105	L19139			Charcoal	In situ	2840	±	50	1060–920 B.C.E.	1130–840 B.C.E.	
RT-3106	L19204			Charcoal	Primary	2725	±	55	910–820 B.C.E.	980–800 B.C.E.	
RT-3108	L19110			Charcoal	Sealed	2735	±	40	900–830 B.C.E.	970–810 B.C.E.	
RT-2926	L17383	D2/9	Upper phase of the "mudbrick building"	Charcoal	Sealed	2705	±	35	890–820 B.C.E.	900–800 B.C.E.	
RT-2930	L17379			Charcoal	Sealed	2745	±	35	910–840 B.C.E.	970–820 B.C.E.	
RT-2931	L17313	D2/8c	Lower floor of "Benni's house," above the "mudbrick building"	Charcoal	In situ	2745	±	20	880–830 B.C.E.	910–830 B.C.E.	Ir1|2
RT-2959	L17337			Charcoal	In situ	2695	±	35	890–820 B.C.E.	900–800 B.C.E.	
RT-3112	L17337			Charcoal	In situ	2815	±	30	1000–930 B.C.E.	1020–890 B.C.E.	
RT-2960	Varia[2]			Olive pits	In situ	2710	±	20	890–830 B.C.E.	900–820 B.C.E.	
RT-3110	L17230	D2/8b	2nd floor of "Benni's house"	Charcoal	In situ	2720	±	45	910–830 B.C.E.	960–800 B.C.E.	Ir2a
RT-2961	L17226			Olive pits	In situ	2710	±	40	890–820 B.C.E.	920–800 B.C.E.	

[1] Calibrated ranges will vary somewhat according to the tree-ring calibration data being used (in this case INTCAL98; Stuiver et al. 1998), the way the calibration curve is interpolated between data points (linear interpolation at 10-year intervals), and the method of spread estimation. While standard deviations ($\mu \pm 1\sigma/2\sigma/3\sigma$) are almost universally used to present 68%, 95%, and 99% confidence intervals for Gaussian (or other unimodal and symmetric) distributions such as the uncalibrated measurements, no such simple estimates are available for asymmetric and/or multimodal, such as the calibrated distributions in figs. 18–21. We present here the *shortest contiguous* interval accounting for 67% (95%) of the distribution's weight. This is a slightly different estimate than the 68% / 95% "highest density region" used in the OxCal (Bronk-Ramsey 1994; 1995) or the Groningen CAL25 (Van der Plicht 1993) programs, which allow for noncontiguous regions. In the region of interest here (ca. 2900–2700 "radiocarbon years" BP), all of these variations are pretty minimal and rarely exceed 10–20 years.

[2] The olive pits making up this sample were found scattered on (different parts of) the same floor, which were excavated as different loci for technical reasons.

the group 'Ir1b' is at date *nnn*"). These probabilities are given in detail in figures 19–21. As can be seen, the results replicate almost exactly the ones of the transition-dating analysis published in Gilboa and Sharon 2001; and Sharon 2001.

In table 21 two alternative chronologies are presented. The first is the higher, conventional chronology, based on two factors: (1) a date no earlier than ca. 1180 for the beginning of the LB\|Ir1 horizon and no earlier than 1160 for the beginning of the Ir1a horizon, and (2) the correlation of the Phoenician sequence with the conventional Palestinian ceramic chronology, via Megiddo.

As is evident from table 21 (last column), the radiometric dates obtained for the entire range under investigation—the late Ir1a to Ir2a—are about 70–100 years later than might have been expected based on the conventional ceramic chronology. Note that, for the most part, the conventional dates are even outside the 95 percent confidence range; e.g., according

TABLE 23. Transition Dates between the Chronological Horizons at Dor

Transition	*Dating considerations*
Ir1a | Ir1b	Somewhere in the range 980–920 B.C.E., depending on the loss function parameters and general flatness of most curves in that range. To err on the side of caution, we dated it to ca. 975 B.C.E.
Ir1b | Ir1l2	Somewhere between 880 and 860 B.C.E.
Ir1l2 | Ir2a	Ca. 850–820 B.C.E. Again, to err only on the side of caution, we suggested a round date of ca. 850 B.C.E.

Note: Based on radiocarbon dates in Sharon 2001.

to figure 21, given the data set, one can say with 95 percent certainty that the beginning of the Ir2a is somewhere between 900 and 825 B.C. The probability that this analysis assigns to a statement like "The beginning of the Ir2a is before 970 B.C." is miniscule. On the other hand, these dates do agree with the newly proposed lower absolute chronology, and in fact are even somewhat lower.

Other than Dor, the only site that produced an extensive, well-stratified sequence of Iron I/IIa ^{14}C dates is Tel Rehov in the Jordan Valley (see Mazar and Carmi 2001; Bruins, van der Plicht, and Mazar 2003). In the latter publication, it has been claimed that the Rehov dates prove the traditional, high chronology, but in fact the Rehov team does go some way toward lowering the chronology in beginning the Iron Age IIA at ca. 980 B.C.E. and including most of the ninth century within it (vs., e.g., Mazar's position in 1990: tables 6, 7). Especially telling is the remark, "we find it plausible to retain the linkage of . . . Megiddo VB and *perhaps* also VA–IVB . . . to the United Hebrew Monarchy" (Bruins, van der Plicht, and Mazar 2003: 318; italics ours) which concedes that the crucial Stratum VA–IVB may be post-Solomonic in date. In our opinion, however, Mazar has not gone far enough in evaluating his own radiometric dates. A formal statistical analysis of these dates, using the same standard Bayesian inference tools presented above (Sharon, Gilboa, and Boaretto 2003), indicates that the most likely date for the beginning of the Iron Age IIA at Rehov is in the *second* half of the tenth century, which is in fact perfectly compatible with the low chronology. The Groningen dates for Tel Rehov are still somewhat higher than the Weizmann dates for Dor (which indicate a date in the first quarter of the ninth century for this same transition). A detailed intercomparison, studying various possible causes for inaccuracy,[14] is currently being undertaken by the authors and three collaborating radiocarbon laboratories—the Radiocarbon Dating Laboratory at the Weizmann Institute of Science in Israel, the AMS ^{14}C Dating Laboratory at Aarhus University in Denmark, and the NSF Arizona AMS Laboratory at the University of Arizona at Tucson.

Thus the general trend shown by currently available radiometric dates is that the chronology for the end of the Iron Age I and beginning of Iron Age II in the Levant needs to be lowered. By just how much remains to be investigated. We cannot overstress, however, our conviction that neither of these data sets is "the last nail" in any chronology. In discussing the implications in the following sections, we shall give equal consideration to both high and low chronologies without speculating as to which one (if either . . .) would ultimately prove to be correct.

IMPLICATIONS

For the Southern Levant

Even prior to a detailed comparative study between Phoenicia and its immediate neighbors, some implications of the Phoenician sequence are readily evident.

[14] *Precision is not the same as accuracy.* The ± figure provided by the lab with radiometric dates merely denotes the internal variation, i.e., the standard deviation of a number of individual counting-periods on the same vial or accelerator runs on the same target. There are a host of other factors that could (minutely) affect the result: the microenvironment around the sample in the ground; postrecovery storage conditions; differences in the chemical protocols for pretreatment; differences in the counting protocols; differences in equipment and its calibration, etc. Some of these sources of possible error are removed in the cleaning process or are neutralized by the appropriate use of standards and backgrounds (blank samples)—but are all? These issues are the subject of ongoing investigations. Finally, even when different labs do agree, the calendar age depends to a large extent on the accuracy at which the calibration curve for the relevant period has been determined and such factors as regional differences in the radiocarbon reservoir. Recent studies (e.g., Manning, Kromer, et al. 2001) indicate such inaccuracies exist, but they are small (i.e., in the order of magnitude of individual decades).

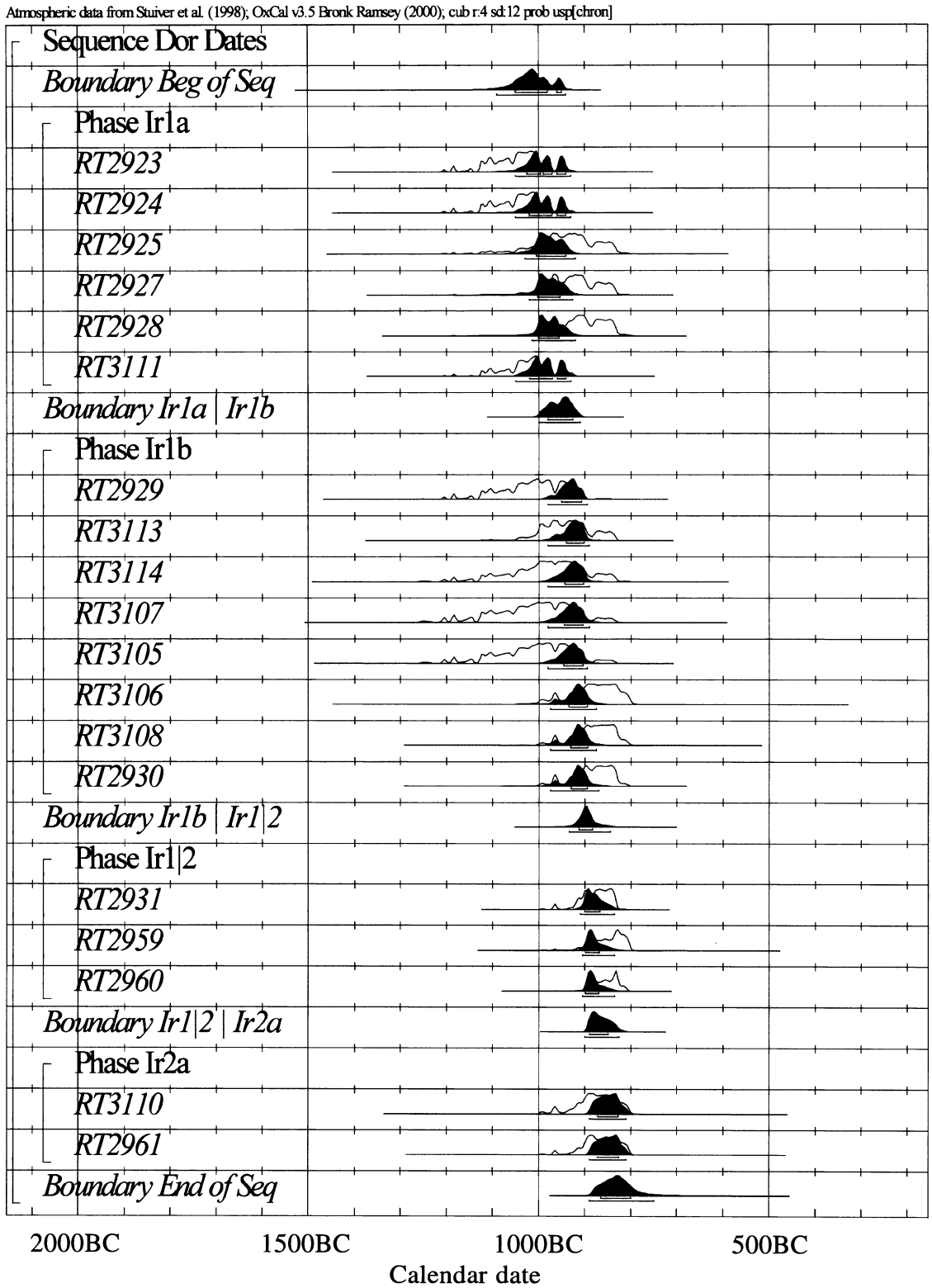


Fig. 18. OxCal (Bronk Ramsey 1994; 1995) results for a Bayesian model showing the unconstrained calibrated probability distributions for 19 of the 22 ^{14}C dates from Dor (in white); conditional probabilities under the stratigraphic constraints (in black), and posterior probabilities for transition dates.

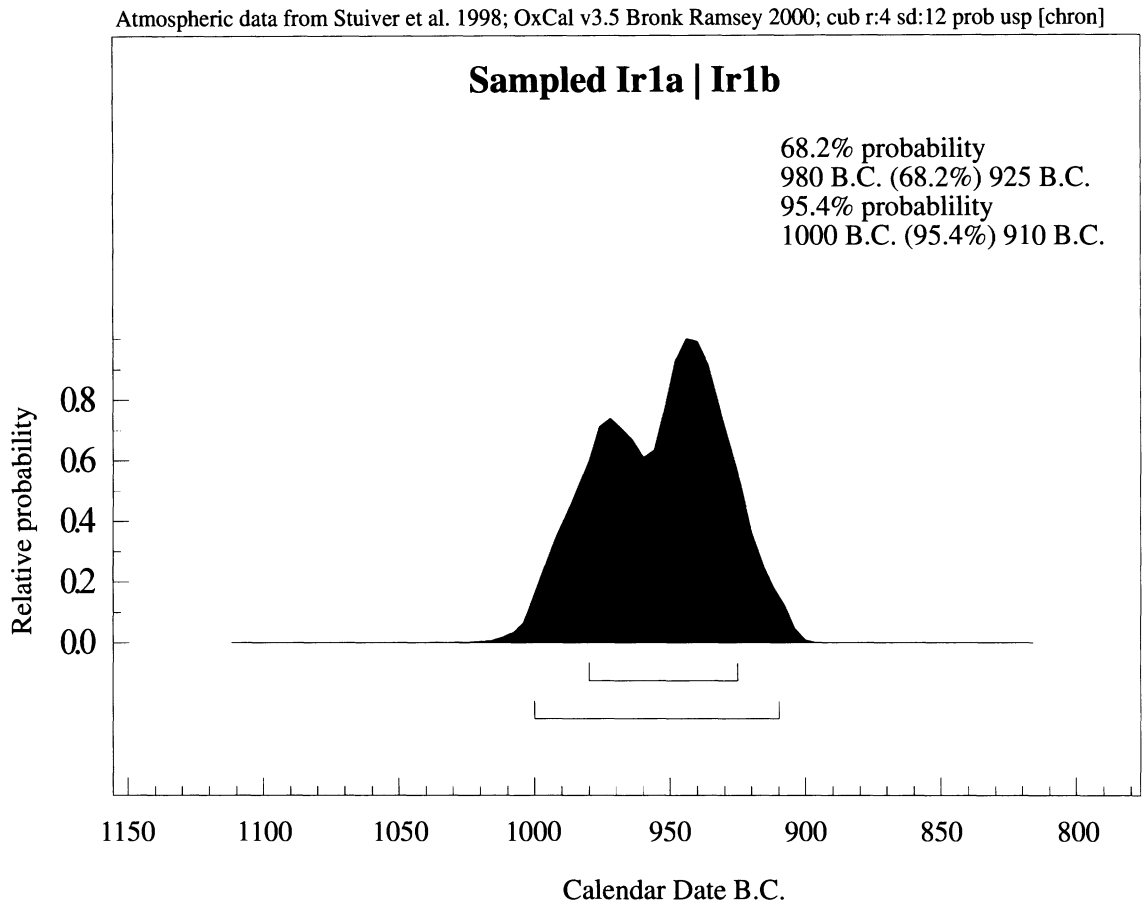


Fig. 19. The Bayesian posterior distribution for the date of the Ir1a | Ir1b boundary, according to the Dor data set.

Bichrome-Bearing Strata. Phoenician Bichrome containers (for a definition, see above) evolve in the Ir1b horizon. As indicated both by stylistic analysis (Gilboa 1999a) and petrography (A. Cohen-Weinberger and Y. Goren, pers. comm.), they are indeed a coastal product. This means that contexts containing such products elsewhere cannot antedate Phoenician Ir1b.

In conventional chronology, early Bichrome-bearing strata are assigned to the 11th century B.C.E. In addition to the Phoenician sites and Megiddo VIA discussed above, these include, for example: in the Galilee: Tel Dan IVB (Ilan 1999: 137, table 3.9, e.g., pls. 8:5; 10:8; 13:2), Hazor XII (Yadin et al. 1961: pl. 201:29), Tel Kinerot V (Fritz and Münger 2002: 12, 18), and Tel Hadar IV (E. Yadin, pers. comm.); on the northern coast and inland valleys: Tell Abu Hawam VC and IV (e.g., Balensi 1980: pl. 17:3), ʿEn Hagit (the early Iron Age phase; Wolff in press), and Yoqneʿam XVII (Ben-Tor 1993: lower fig. on p. 809); in central Israel: ʿIzbet Sarṭah II (Finkelstein 1986: fig. 15:16); in Philistia: Tell Qasile X (Mazar 1985a: 65–69; figs. 41:11–13, 45:15); in the Negev: Tel Masos II (Fritz and Kempinski 1983: pl. 146:1). Some of these contexts are conventionally ascribed to the Israelite settlement or to the heyday of Philistine hegemony. The *end* of this phase (in "non-Israelite" sites) is often attributed to Davidic expansion; see Mazar 1990: chap. 8, esp. table 6, for these sites and their conventional chronology.

On the low chronology for Phoenician Bichrome, the Ir1b horizon only *begins* ca. 980/970 B.C.E. at the very earliest (see table 21)—the very end of David's reign as calculated by biblical reckoning.

Black-on-Red–Bearing Strata. Cypriot Black-on-Red ware, alongside other vessels of the CG III horizon, is first attested in Phoenicia in Ir2a. The

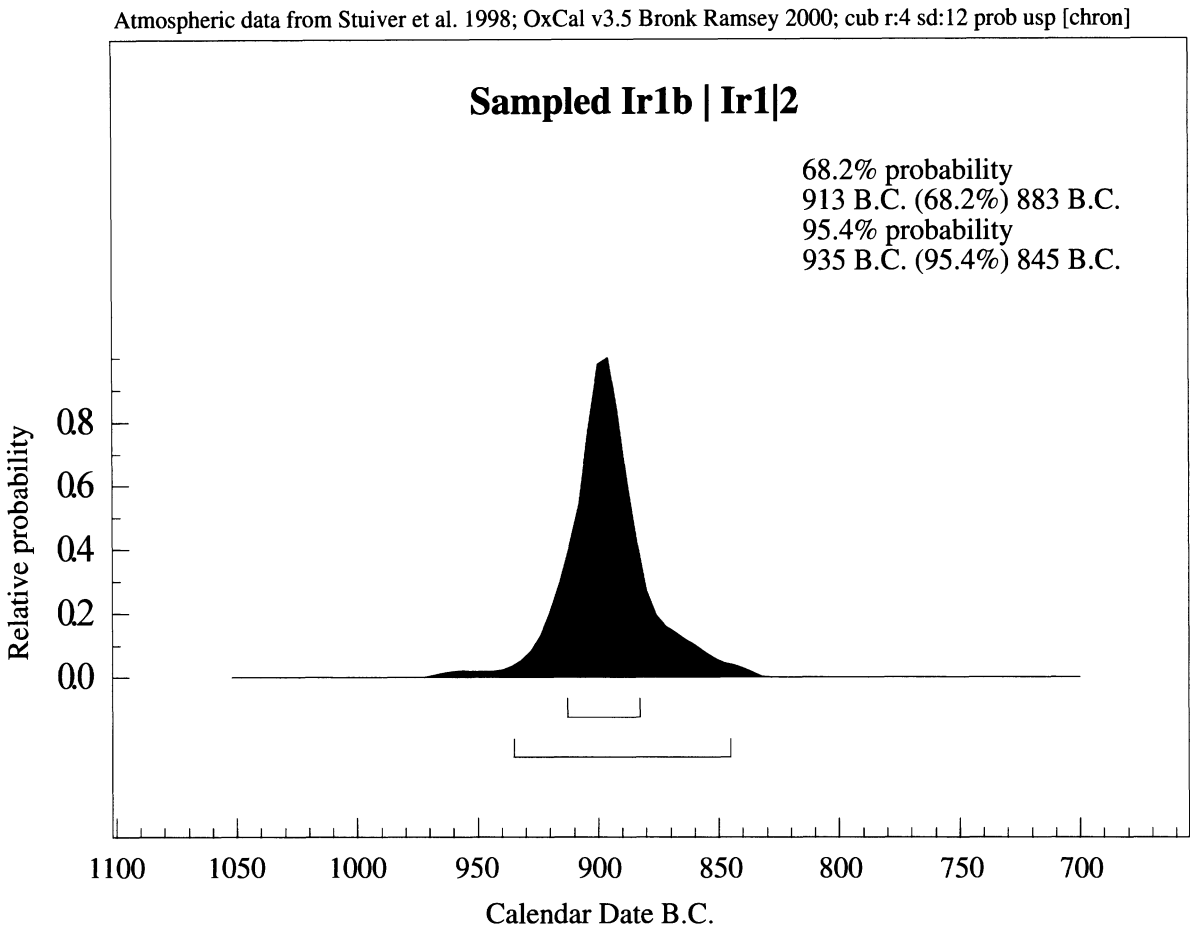


Fig. 20. The Bayesian posterior distribution for the date of the Ir1b | Ir1|2 boundary, according to the Dor data set.

previous horizon (Ir1|2) still reflects an earlier Cypriot typological vista (see also the discussion of Cypriot chronology below). Other BoR-bearing strata are, for example: in the Galilee: Dan IVA (D. Pakman, pers. comm.), Hazor X and IX (e.g., Yadin et al. 1961: pls. 172:1; 174:9, 175:18); in the northern coast and northern valleys (in addition to Dor and Tell Keisan): Ḥorbat Rosh Zayit IIb and IIa (Gal and Alexandre 2000: 68–78; probably III as well: see Gal and Alexandre 2000: 30); Tell Abu Hawam Stratum III and possibly the latest phase of (Hamilton's) Stratum IV (Balensi's Stratum IV-5: Balensi 1985: 68; Balensi and Herrera 1985:99; Herrera González 1990: e.g., figs. 57:19; 60:43, 52); Tel Mevorakh VII (e.g., Stern 1978: fig. 18:5; but most of the BoR fragments published as originating from this stratum cannot be directly associated with it); Yoqneʿam XIV (Zarzeki-Peleg 1997a: 275, fig. 9); probably Taʿanach IIb (Rast 1978: fig. 93:5, 6); Beth Shean Lower V (James 1966: e.g., figs. 8:3; 22:1; usually, the subsequent stratum, Upper V, is attributed to the tenth century B.C.E.); for Megiddo, see above; in the Shephelah and the South: possibly Gezer VIII (Dever 1985: 222); Ashdod Xa (Dothan and Porath 1982: fig. 8:8); Beer Sheva VI and possibly VII (Herzog 1984: figs. 24:7; 30:8, 9; the excavator dated Stratum V to David, though nowadays it is often Strata VII–VI that are assigned to the United Monarchy era).

Virtually all the constructions attributed by Yadin, Aharoni, Kenyon, and others to Solomonic building activities (Mazar 1990: chap. 9, especially table 7, lists these strata with conventional chronology) have BoR imports. By the radiometric chronology these contexts, or at least their ends, cannot antedate the mid-ninth century B.C.E. The crucial question—whether BoR appears *below* "United Monarchy" contexts—cannot be answered at the moment. Two such possible cases are Beth Shean Lower V and

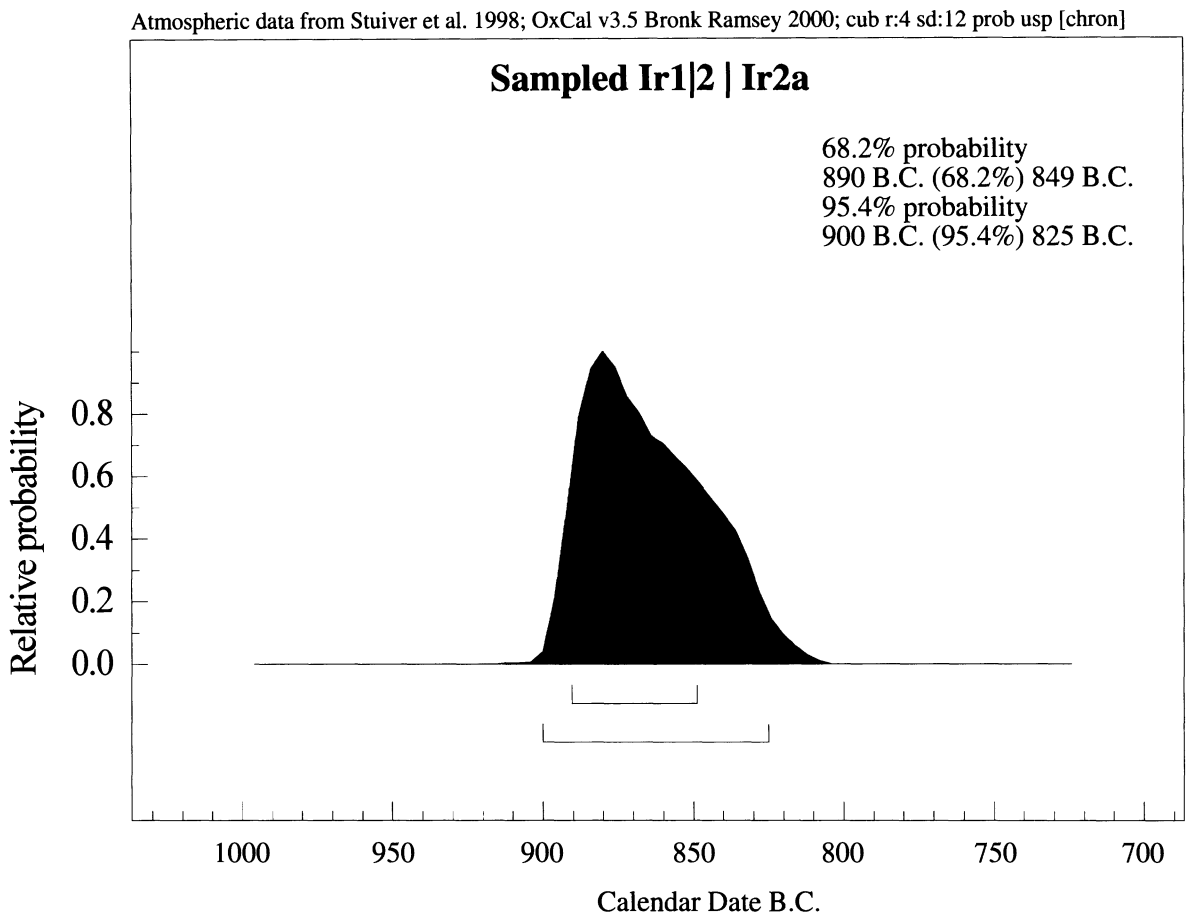


Fig. 21. The Bayesian posterior distribution for the date of the Ir1|2 | Ir2a boundary, according to the Dor data set.

Megiddo VB—but the contexts there are not secure enough.

For Cypriot Proto-Geometric and Geometric Chronology

Cypro-Geometric chronology, and that of the preceding LC IIIB, also devoid of anchors for absolute chronology, have always been dependent on Cypriot finds abroad, especially in the Levant, and vice versa (see mainly Gjerstad 1948: 240–318, 421–27; Van Beek 1951; Birmingham 1963; Vandenabeele 1971). Though many scholars have expressed uneasiness with the Swedish chronology, and in fact with the very typological framework proposed by Gjerstad (in addition to the works cited above, see, e.g., Sørensen 1993: 37; Schreiber 2003: 221–30, 239–80), no comprehensive alternative framework has been formulated; Birmingham's attempt (1963) at a different terminology and higher chronology had only a very limited impact. (For a succinct survey of the formulation of Cypriot Iron Age chronologies, see, e.g., James et al. 1991: 151–54).[15] For want of an alternative terminology, we employ Gjerstad's typological definitions, with caution, but, as was our practice regarding the mainland repertoires, we emphasize stylistic horizons rather than individual vessels.

Dor and Tyre have produced the largest body of Cypro-Geometric pottery ever uncovered outside the island. Moreover, due to the scarcity of stratified

[15]Demetriou (1989: e.g., 1, 3, 81–82) offered a chronology that is generally midway between Gjerstad's and Birmingahm's. It is based on artifactual/stylistic correlation between Cyprus, the Aegean, and other Mediterranean regions (but excludes the Levant). The basis for the absolute chronology offered, however, is the conventional Greek one, which is even more problematic than the Cypriot one—and ultimately based on the Levant (see below).

habitation sites in Cyprus itself, they are the key sites for the Cypro-Geometric sequence.

Late Cypriot IIIB. In this period we have no proof of Cypriot ceramic exports to the Southern Levant. The Proto White Painted (PWP) pottery defining this horizon (see mainly Iacovou 1992 and references therein) has not been identified there yet. (The Tyre XIV bowl in Bikai 1978: pl. 14:4, once identified as such, does not in fact belong to this ware group; see Iacovou 1999a: 149.) Indirect clues in the region under consideration lie at two sites. At Dor, Phase G/9, two vessels (figs. 2:18, 5:7) exhibit affinities with LC IIIB and early CG I decorative concepts. This is true also for some of the so-called Cypro-Myceneaen vessels from Tell Keisan Stratum 9c. Both of these assemblages belong in the late Ir1a horizon (though Keisan 9c possibly ends somewhat later; see above). Other Cypriot vessels (of Black Slip and Grooved wares) which may date to LC IIIB/early CG I were uncovered in the Tell el-Farʿah (South) cemeteries, but the contexts there cannot be dated close enough within the early Iron Age; see Gilboa forthcoming.)

However, pottery, mostly jars and flasks, was shipped in the opposite direction. Most revealing are the shapes of some of the (monochrome or two-colored) flasks. Some are still lentoid, but others are already asymmetric or nearly globular, and some already feature a single perpendicular handle rather than the two lateral ones (see, e.g., in Kouklia-*Kaloriziki* Tomb 40: McFadden 1954: fig. 23:10; in Kouklia-*Xerolimni* Tomb 9: Karageorghis 1967: fig. 8:17; in the Alaas cemetery: Karageorghis 1975: pls. 55:T.15/13; 60:T.17/26; 64:T19/25). This faithfully mirrors the evolution of these flasks in Phoenicia, which starts in Ir1alb and ends in Ir1b. It hints at the fact that LC IIIB probably encompasses not only the Ir1a horizons, but possibly Ir1alb as well.

The (partial, at least) correlation of LC IIIB with Ir1a and Ir1alb is also supported by the stratigraphic position of this horizon in Phoenicia: it follows the LC IIIA corollaries of the preceding LBIIr horizon and precedes the CG I corollaries of the succeeding Ir1b (see below), as well as the initial appearance of Phoenician Bichrome in Cyprus, in CG I contexts (Gilboa 1998: 423; Iacovou 1999a: 149; and see below).

LC IIIB is currently dated ca. 1150/1125/1100–1050 B.C.E. (respectively, Karageorghis 1992: 80; Iacovou 1994: 149; Coldstream 1990: 50). Employing the conventional chronology would leave the terminal dates (naturally) more or less intact, but even in the conventional chronology, assuming that the LC IIIA horizon cannot have started earlier than ca. 1190/1180 B.C.E. (see above), 1150 as the beginning of this period is too high a date.

Radiometric dates for the Late Ir1a destruction layer at Dor place the end of Phoenician Ir1a ca. 980 B.C.E. Accepting this chronology means that the end of LC IIIB should probably be lowered by 50 years at the very least, and placed no earlier than ca. 1000 B.C.E., possibly even lower than that.

Cypro-Geometric I–II. Here we are on safer grounds. Well-stratified vessels and sherds of an early to mid-CG I horizon were uncovered at Dor (Ir1b), at Tyre XIII (the CG fragments from Stratum XIV are ignored here, as explicated above), at Megiddo (one complete vessel in Stratum VIA [Loud 1948: pl. 78:20]), and at Tell Qasile (four fragments, one from Stratum X, and three others, probably also from X, but possibly from XI [Mazar 1985a: 81, figs. 27:4–6; 45:18]).[16] Stratum X at Tell Qasile contains Phoenician Bichrome imports (above) and certainly cannot antedate the initial occurrence of these vessels in Phoenicia, i.e., the Ir1b horizon.

The association of the Ir1b horizon with early to mid-CG I is borne out also by pottery traveling in the opposite direction. As we have shown, this is the horizon that witnesses the transformation of the late Canaanite decoration, from the group we have called "Monochrome" to the Bichrome containers, with a short overlap between the two decorative methods, with the same syntax, until Bichrome prevails. The transition from imported monochrome to Bichrome Phoenician containers occurs in early to mid-CG I, for example, at *Skales* Tombs 44, 58, 85, 89, 91 (Karageorghis 1983: figs. 54:111; 108:44, 93, 94, 95, 108; 173:16; 188:22; 197:3; cf. Iacovou 1999a: 149).

Thus Ir1b in Phoenicia is to be correlated with CG IA to mid-CG I. It is possible that the preceding Ir1lb is also partially encompassed in CG I, but this cannot be yet determined.

The conventional dates assigned to the Ir1b in Israel are ca. 1050–980 B.C.E. (the lower date is

[16] One CG I plate at Qasile (Gilboa forthcoming), which has a very close counterpart at Salamis Tomb I (CG I), was attributed by its excavator, B. Mazar, to Stratum IX. According to A. Mazar [pers. comm.] the deposit there is so close to the Stratum X deposits that it actually may belong in this latter stratum.

determined by the association of the end of these strata with Davidic conquests; see above). Radiometric dates place this horizon after 970 B.C.E. and before ca. 880 B.C.E., i.e., by and large the tenth century B.C.E.

In Cyprus, CG IA is conventionally dated ca. 1050–1000 B.C.E. (Karageorghis 1982: 9; Coldstream 1990: 51; Iacovou 1994). Iacovou (1999b: 2) lately assigned a lower terminal date and thus a longer range for this horizon: 1050–950 B.C.E. Employing the conventional Palestinian chronology will, of course, leave the Cypriot chronology unchanged. Acceptance of the low chronology would mean a lowering of the beginning of this range by at least 50 years. As regards its lower end, the date proposed by Iacovou (950 instead of 1000) would fit the low Levantine chronology better, but would still be about 50 years too high.

The next Cypriot typological phase, CG IB–II, is stratigraphically best attested at Dor, in the Ir1|2 horizon. Elsewhere this period is attested mainly at Tyre, in Strata XII, XI, and possibly X as well, with the same typological vista of Cypriot pottery.[17]

This horizon, in the Palestinian conventional chronology, is a Davidic one, i.e., attributed to the early tenth century B.C.E. The low chronology would place it around the turn of the ninth century. At Dor, this phase is dated radiometrically between 880 and 850 B.C.E., i.e., roughly to the first half of the ninth century.

In Cyprus, the CG IB–II horizon has conventionally been dated ca. 1000/975 to 850 B.C.E. (e.g., Karageorghis 1982: 9; Coldstream 1990: 51–52); according to Iacovou it starts around 950 (see above). Following a low chronology would mean that the beginning of the period would have to be lowered further by about 50 years, at the very least, but its terminal date would conform to the Levantine evidence. It also means that the range of CG II would have to be considerably reduced. N. Coldstream reached the same conclusion a few years ago on different grounds, but he chose to raise the date of the end of the period rather than lower the beginning, thus dating CG II to 950–900 B.C.E. (Coldstream 1999: 114–15). Though not explicitly expressed, such a shortening is implied also by Iacovou's latest writings (Iacovou 1999b: 3). Recently, Coldstream's range for CG II has been endorsed by V. Karageorghis (e.g., 2002: table on p. 6).

Cypro-Geometric III. The Cypro-Geometric III typological horizon is first attested in Phoenicia in Ir2a; the contexts there are those at Dor (Ir2a), Tyre IX (and possibly X), Sarepta D2 and D1 (for these sites, see above), the earliest phase of Tell Abu Hawam III (IIIa) and possibly the latest phase of IV, and Tel Mevorakh VII (for the two latter sites, see Herrera González 1990: e.g., figs. 55:5, 7; 56:11, 14; Stern 1978: fig. 18: 1–14; but, as mentioned, not all of the Tel Mevorakh fragments can safely be attributed to Stratum VII).

We have already noted that this horizon produced the earliest well-stratified BoR ware examples (see above; for a recent extensive discussion of this ware group, see Schreiber 2003), but there are abundant occurrences of other CG III imports as well (see comprehensive lists in Schreiber 2003). As observed both by Birmingham (1963: 40) and by Schreiber (2003: 230; see also Gilboa 1989: 216), the detailed Phoenician stratigraphy now available indicates that BoR indeed appears on the mainland only slightly later than the first import of Cypriot barrel juglets (attested in the Ir1|2 horizon; see above).

Cypriot imports of the same typological range are attested in the Levant at many other locales, both in Israel and in Syria, starting in contexts assigned to Iron Age IIA (see lists in Schreiber 2003).

In the conventional chronology, these Ir2a strata ("the Megiddo VA–IVB horizon") date to the tenth century B.C.E. The low chronology, supported by the Dor radiometric dates, places them in the ninth. We have already pointed out that this lower dating conforms to the traditional Cypriot chronology, which places the beginning of CG III at 850 B.C.E.

Let us be reminded of some consequences of the traditional Palestinian chronology for the BoR issue. Maintaining both conventional Palestinian and Cypriot chronologies means that BoR in the Levant is attested at least a century or so earlier than in Cyprus. This led some scholars to postulate that this ware originated on the mainland—in the Syro-Cilician sphere according to Gjerstad (1948: 269–70), in Phoenicia or generally the Southern Levant according to others (e.g., Vandenabeele 1971: 15; Culican 1982: 61; Mazar 1985a: 84). It was further assumed that subse-

[17] To James, Kokkinos, and Thorpe (1998: 31 and n. 4) it seemed "mysterious" that no BoR ware vessels from this horizon at Dor were presented in Gilboa 1989, implying that we chose to bypass the chronological problematics of this ware, or worse, purposely withheld information. In fact, these contexts at Dor simply do not include BoR. Indeed, as explicated above, it is obvious that the Cypriot vista in them is typologically earlier. BoR simply does not count among the "beginning of Cypro-Geometric exports to the Levant," the subject of that article.

quently, ca. 850 B.C.E., BoR was emulated by Cypriot potters, elaborated, and extensively exported. A few occurrences of BoR ware in pre-CG III contexts in Cyprus, the most oft-quoted one at Lapithos *Kastros* Tomb 417, were taken as support of this view and perforce were considered to be of non-Cypriot origin (e.g., Gjerstad 1948: 270, n. 1; Vandenabeele 1971: 8). Moreover, Gjerstad and others, such as Vandenabeele (1971), claimed that they could segregate visually the earlier (i.e., non-Cypriot) vessels—for example, by their coarser fabric and flaking surface—from the later, "canonical" Cypriot products.

Fabric analyses (chiefly Yellin and Perlman 1978; Matthers et al. 1983; Brodie and Steel 1996) have indicated that while most BoR vessels were indeed made in Cyprus, the possibility of additional production centers, on the mainland, cannot be ruled out. But even if it is eventually demonstrated that BoR was also manufactured in the Levant, the fact remains that the typological milieu of the earliest BoR vessels is that of CG III, possibly the CG II/III transition at the earliest (see below); typologically this ware is totally foreign to Phoenicia, or for that matter to any other region in the Southern Levant, though it may betray some mainland influences (see also Bikai's comment to this effect in Coldstream 1988).

In addition, stratigraphic evidence from the Levant also disproves the notion of "early, coarse" vs. "later, high quality" BoR vessels (see also Schreiber 2003: e.g., 239–40, 243–44). Ir2a cannot significantly antedate CG III.

Lately, Nicola Schreiber has suggested that the beginning of BoR in Cyprus should be placed in late CG II and is in fact *earlier* than its earliest manifestations in the Levant. According to her, the earliest vessels ever produced in Cyprus in BoR, among which barrel-shaped juglets are very significant, are hardly represented on the mainland (Schreiber 2003: 258).[18] So the possibility that the earliest BoR in the Levant, in Ir2a, actually does not reflect the very beginning of BoR in Cyprus should be borne in mind. However, as should be obvious by now, it is not only BoR, but also other components of the CG III horizon that are manifested in Ir2a. Thus there is no escaping the conclusion that the Levantine Iron Age IIA (our Ir2a) must parallel (at least the beginning of) CG III. Employing the conventional Levantine chronology would mean that the CG II/III transition should be placed in the second half of the tenth century, at 925 B.C.E. (the "Shishak horizon") at the very latest, 75 years to a century higher than by traditional Cypriot chronology (for similar conclusions, see, among others, Van Beek 1951; Birmingham 1963: 40; Vandenabeele 1971: 17; Schreiber 2003: 272–73).[19] The low chronology, on the other hand, will leave the initial date for this period unchanged. The higher date for the CG II/III transition (900 B.C.E.), recently proposed by Coldstream and supported by Karageorghis, to replace the canonic 850 B.C.E. (see above) would fit the high Levantine chronology better than its predecessor, but is still too low. Is it compatible with the low chronology? This chronology (see above) associates early Iron IIA (= early CG III) assemblages with the Omride dynasty in Israel, ascending ca. 880 B.C.E. Thus, employing the low chronology means that 900 B.C.E. is just a bit too high.

Implications for Euboean Proto-Geometric Chronology

Greece, like the Levant and Cyprus, did not yield any anchors of absolute chronology for the early part of its Iron Age until at least the eighth century B.C.E. (for those who do accept the Thucydidean testimony). James et al. (1991: 106–10) and Fantalkin (2001) conveniently summarize and deconstruct the Levantine foundations for Proto-Geometric and Geometric chronology, comprising chiefly finds of dubious stratigraphic associations and a host of circular arguments (see also Lemos 2002: 25). For the problematic contexts of the famed Tell Abu Hawam III Greek vessels, see also Herrera and Balensi 1986 (with references to earlier discussions). The following discussion concerns only the early part of this sequence, the Proto-Geometric one.

The discovery of Euboean Proto-Geometric pottery in the Levant and in Cyprus in recent decades prompted new attempts at assessing the validity of the current Proto-Geometric chronology. With the notable exceptions of Kearsley and Coldstream, these did not consider the Levantine and Cypriot data holistically (see below; Nitsche 1986–1987; Kearsley

[18]The few BoR barrel-shaped juglets on the mainland—e.g., from Beth Shean Lower V (James 1966: fig. 22:9) and Achziv, Tomb 979 (Prausnitz 1997: pl. 3:6)—cannot, alas, be closely enough dated.

[19]For a super-high chronology for both the Levant and Cyprus, based on ^{14}C dates from Phoenician sites in Spain (coupled with an acceptance of the conventional Bible-derived dates for sites in Israel), see Ortiz 1998. He, however, takes into account Greek finds in the east whose contexts are extremely problematic.

1989; Coldstream 1999; Kopcke 2002; Fantalkin 2001). What follows, then, is a survey of the information at hand regarding Euboean Proto-Geometric ceramics in the east, based on the sequence suggested above and its correlation with Cyprus, as well as of the information gained from the pottery traveling east to west.

The very earliest *stratified* Greek (Euboean) Proto-Geometric (hereafter PG) ceramics in the Levant are attested to date at three sites: Tel Hadar, on the eastern shore of the Sea of Galilee, Tyre, and Dor. In addition, fragments of PG amphorae were found out of context at Ras el-Bassit on the Syrian coast (Courbin 1993), and recently a few Euboean potsherds, some possibly of PG date, have been uncovered at Tel Rehov in the Jordan Valley (Coldstream and Mazar 2003, and see more on the latter below).

At Tel Hadar, the store building of Stratum IV (Kochavi 1998) produced an almost complete Euboean bowl/krater or *lebes*. To date this is the only Greek PG vessel in the Levant in primary deposition (see Coldstream 1998; for a preliminary publication, see Kopcke 2002). Stratum IV is attributed by the excavators to the 11th century B.C.E., until 980 at the latest, chronologically equated with Megiddo VIA, i.e., with the horizon here termed Ir1b (Kochavi 1998: 470–71). However, the Tel Hadar ceramic assemblage, which is of a very local nature (and production), is extremely difficult to correlate precisely with ceramic assemblages not in its immediate environs. The correlation with Megiddo VIA, as proposed by the excavators, is indeed possible, but judging from the (very few) nonlocal vessels at Tel Hadar, a somewhat later relative date, i.e., paralleling the Ir1|2 transition, seems also viable. Likewise, the few Phoenician Bichrome vessels uncovered at Tel Hadar could indeed still relate to the Ir1b horizon (like Megiddo VIA), but they exhibit features that are much more common later, in Ir1|2: one jug bears horizontal Bichrome decoration and another is provided with a ring base (we are indebted to M. Kochavi and E. Yadin for showing us the Tel Hadar assemblage and discussing it with us prior to publication). In this context it should also be borne in mind (see above) that we hardly have any data as to the character of the ceramic assemblage that would have immediately followed that of Stratum VIA at Megiddo.

To complicate matters further, the Greek vessel is typologically unique, and its correct placement within the Middle to Late Euboean PG range (MPG–LPG) has not been satisfactorily established yet. An LPG attribution seems to be the majority's vote at the moment (Coldstream 1998: 358–59, n. 25; Kopcke 2002: 116), though lately Coldstream (2000: 18) chose to be less definite: "somewhere near the change from the MPG to the LPG phase"; cf. also Crielaard 1999: 281, and Lemos 2002, which defines this vessel as MPG/LPG (p. 25) and then more specifically as LPG (p. 228).

In Bikai's excavations at Tyre, about 40 Greek sherds were unearthed, of which 16 were illustrated (see overview in Nitsche 1986–1987: 8). The earliest stratigraphic context in which pottery of this typological horizon occurs is Stratum XI, of the Ir1|2 horizon. (Many other Greek fragments of various periods, possibly including Euboean MPG and definitely LPG and later types, have been uncovered in other parts of the city, mostly in Emir Chéhab's excavations [see Coldstream 1988], but their exact contexts are unknown and thus they are useless as tools for comparative chronology.)

The most explicit discussion of the chrono-typological sequence of the stratified Greek sherds at Tyre, which we follow below, is that by A. Nitsche (1986–1987).[20]

In Stratum XI there are three Euboean fragments, of which two were illustrated (Bikai 1978: pl. 30:1, 3). No. 1, an MPG or LPG belly-handled amphora, was demonstrated by Nitsche (1986–1987: 13, 14, fig. 1) to belong to the same vessel as a fragment assigned by Bikai to Stratum IX, of the Ir2a (Bikai 1978: pl. 21:7). No. 3 is a skyphos with full circles, probably of MPG/LPG date. Though generally such skyphoi continue into Sub-PG I–II (Desborough 1980: 300; Coldstream 1988: 39; Nitsche 1986–1987: e.g., 42; Kearsley 1989: 114; Lemos 2002: 39), the Maltese cross enclosed within the circles indicates a Proto-Geometric date.[21]

The third, non-illustrated fragment was reported by Bikai (1978: 66) to belong to a "Sub-PG" skyphos with pendent semicircles.[22] Nitsche claimed that an

[20]However, Nitsche's *absolute* dates for the early Iron Age strata at Tyre (see table 15) are a priori problematic, as they are based on the conventional, insecure, Greek chronology.

[21]Coldstream (2000: 19–20) associates skyphoi with full circles found at Tyre (in Chéhab's excavations) with Euboean MPG, as defined by the fill covering the Toumba "Heroon"; but nowhere does he explicitly address the dates of such fragments from the stratified sequence at Tyre. Implicitly (Coldstream 2000: 21 and n. 25) the Tyre XI skyphos is defined as LPG.

[22]When considering Bikai's typological/chronological attributions for the Greek pottery, it should be borne in mind that the full Lefkandi data had not yet been published when the Tyre report was written.

earlier, PG date for this latter fragment cannot be ruled out (1986–1987: 16–17, table 2), and other scholars too have placed the beginnings of the skyphoi with pendent semicircles in LPG (e.g., Desborough 1980: 299; Kearsley 1989: 112, 133). Nowadays it seems quite certain that though LPG indeed marks the first significant occurence of such skyphoi, they start even earlier, in MPG (Lemos 2002: 44; for examples from the Toumba building, see Catling and Lemos 1990: pl. 12:155–64; contra, e.g., Coldstream 2000: 23, who places their beginning only in Sub-PG).

In Stratum X-1 (end of Ir1|2 and possibly early Ir2a; see above), five Greek fragments were found, of which two were illustrated (Bikai 1978: pl. 24:5, 6), a plate and a skyphos, both with pendent semicircles. The skyphos was assigned by Nitsche a Sub-PG I–III range, most probably only I–II; according to him it should belong to Kearsley's Type 2 or 3, paralleling Euboean Sub-PG I–III.[23] Likewise, the plate was assigned a Sub-PG I–II typological range (Nitsche 1986–1987: 18–20 and n. 59, figs. 3:1, 10:1 and see his excursus on plates, pp. 31–40, esp. 36–39). For similar and even slightly earlier dates for the earliest plates with pendent semicircles, see also Coldstream 1988: 36 (starting in LPG); contra Desborough and Courbin (1982), who place their beginning only in Sub-PG III. As opposed to Coldstream, Lemos (2002) does not consider the pendent semicircles plate a Proto-Geometric type. Bikai, on the other hand (1978: 63, n. 208), defined this vessels as LPG. Three other, non-illustrated fragments were reported by her to belong to Sub-PG skyphoi, with similar designs (Bikai 1978: 66; but see n. 22).

In Stratum IX, of Ir2a, again at least two "early" Euboean fragments were found: the above-mentioned MPG or LPG amphora (Bikai 1978: pl. 21:7), and a skyphos with full circles (Bikai 1978: pl. 22A:1),[24] but they occur among other Greek fragments, which are typologically later, of Sub-PG and Geometric types (Bikai 1978: pl. 22A:4–6; for a discussion, see Nitsche 1986–1987: 22). No. 4, a skyphos, was attributed by Nitsche (1986–1987: fig. 4:1) to Sub-PG III,[25] and the plates (with pendent semicircles) from this stratum were also given a Sub-PG III range (Nitsche 1986–1987: 22). Skyphos no. 2 (Bikai 1978: pl. 22A:2) was identified (Nitsche 1986–1987: 23–24) as Attic Middle Geometric I. No. 14 was suggested to be part of a three-footed cauldron, for which an LPG–Sub-PG I range was offered (Nitsche 1986–1987: 24–26); Coldstream (1988: 40, nos. 72–74) restricts its range to LPG only.[26]

Nitsche (1986–1987: table 2 and, e.g., pp. 17, 18, 20, 28, 44), who was well aware of the problematics of the contexts at Tyre, attempted to bring some order to this ambiguous typological distribution, determining that Stratum XI and possibly also XII (both of our Ir1|2 horizon) reflect Euboean LPG; Stratum X-1 (late Ir1|2/early Ir2a?) is postulated to equal Sub-PG I–II; and Stratum IX of Ir2a (alongside VIII) to equal Sub-PG III.

The contextual problems at Tyre (see above) are indeed demonstrated by this highly problematic typological distribution (and by the fact that at least two fragments of the same vessel were uncovered in two different strata). Bearing these in mind, along with the lingering fuzziness (and disagreements) regarding the Euboean typological sequence itself, as exemplified above, the Tyre/Greece correlations offered by Nitsche, though to our minds very likely (see below), should be regarded with extreme caution as a basis for Euboean and other Greek chronologies. Some support for this reconstruction, however, is lent by finds at Dor, in Cyprus, and in Euboea itself. Two Euboean fragments were identified at Dor: a zig-zag cup (fig. 11:19) and a large open vessel internally black-slipped and externally adorned by concentric circles (for photographs of both, see Stern 2000a: pl. IX:4). They were uncovered in Area D2, above a Phase 8c floor (preliminarily dubbed 8b) of the courtyard next to the "fieldstone building," a floor that seals the Ir1b "Mud-brick building" of phases 10–9 and is associated with the Ir1|2 horizon.[27] This context is sealed but cannot clearly be demonstrated to be in primary deposition.

The cup was first attributed by Coldstream to LPG, but he does not rule out an MPG attribution as well (pers. comm.; see also Coldstream 2000: 18); Lemos assigned it to MPG (pers. comm.; see also Lemos 2002: 30). Indeed, the high offset lip and the

[23] Kearsley herself did not classify this vessel, as its rim is missing.

[24] And Euboean PG ceramics are still represented in Stratum VIII.

[25] Kearsley attributed it to her Type 6 (Kearsley 1989: no. 227, see pp. 67, 104), a late type in her sequence, which she dates to Sub-PG III and the Late Geometric (Kearsley 1989: 128, 142; and see more on this below). For a critique of the Late Geometric attribution of this type, see Popham and Lemos 1992. Such a late date is indeed impossible for the Tyre specimen.

[26] A similar fragment, possibly belonging to the same vessel, was uncovered in Stratum VII (Bikai 1978: pl. 22A:7).

[27] And does *not* equal Megiddo VIA as deduced by Fantalkin (2001: 122).

configuration of the zig-zag band panel and the reserved band under it are compatible with those on zig-zag cups found in the fill of the Toumba building, and possibly on its floor as well (MPG; e.g., Catling and Lemos 1990: pls. 9:25, 26, 27a; 48:56, 57, 58, 73, 83, 93, 98). None of these is really identical, however, and cups that are close to the Dor example are occasionally found in LPG contexts as well (e.g., Popham and Lemos 1996: pl. 115:f). The other fragment was assigned by Coldstream to MPG (pers. comm.).

Thus, with all the caution due to hanging the entire chronology of Iron Age Greece on a handful of stratified sherds, most of which (the ones at Tyre and at Dor) are not in primary deposition, the Tel Dor fragments generally agree with the Greek sequence proposed by Nitsche for Tyre. On present evidence, the MPG/LPG transition and LPG are reflected in Phoenicia in the Ir1|2 horizon.

The Tel Hadar krater/bowl either belongs to this horizon or is somewhat earlier (Ir1b). Only if the earlier relative attribution (as suggested by the excavators) is accepted or, alternatively, if some of the unstratified fragments at Tyre (see above) are demonstrated to be typologically earlier than the stratified fragments of Tyre and Dor, can a case be made for Euboean ceramics reaching the Levant prior to Ir1|2 (for S. Sherratt's suggestion, that the Tyre XIV skyphos is an Early Proto-Geometric piece, see above).

The attribution of the first Euboean PG ceramics in the Levant to the Ir1|2 horizon gains some support from Cyprus. The earliest attested Iron Age Euboean (LPG) pottery vessels on the island are found at Amathus, most probably to be associated with CG II, which parallels Ir1|2. However, they originate in a looted tomb (Desborough 1957: fig. 4a, b; Coldstream 1987: 22–23; 1989: 91; 1999: 112; Lemos and Hatcher 1991: nos. 1, 2; for another, unprovenanced LPG example in Cyprus, see references in Nitsche 1986–1987: 29, n. 103).

The general correlation between Phoenician Ir1|2 = Cypriot CG Ib/II on the one hand and the Euboean MPG|LPG transition and LPG on the other is also supported by eastern ceramics at Lefkandi (other *orientalia* there cannot be dated with the same resolution). In Palia Perivolia Grave 22, a Cypriot Bichrome barrel juglet was found (Popham, Sackett, and Themelis 1980: pl. 137:19; see also Desborough 1980: 411, n. 502; Coldstream 1999: 111). The exact typological definition of these juglets and placement in the Cypriot sequence is problematic; the juglet probably belongs to CG II but early CG III cannot be ruled out.[28]

Later on, during Sub-PG II, as attested in the outstanding Toumba Grave 97A (Popham and Lemos 1995), the imports are already of Ir2a = early CG III date. They include two Phoenician Bichrome ring-based jugs, of which one (Popham and Lemos 1996: pl. 79:A11) can date either to Ir1|2 or to Ir2a; though the other, with its relatively small body, wide-ridged neck, and simple splaying rim (Popham and Lemos 1996: pls. 79:A10; 109:79A,10) is a definite Ir2a shape (see, e.g., at Tyre IX: Bikai 1978: pl. 22A:8); a Levantine, probably Phoenician bowl (Popham and Lemos 1996: pl. 109:79A,9), which, though lacking exact parallels, would fit the Phoenician Ir2a bowl morphology (see fig. 12:7; also Gilboa 2001b: pl. 5.70:6); Cypriot BoR ware (Popham and Lemos 1996: pl. 79:A13); and a Cypriot WP juglet (Popham and Lemos 1996: pls. 79:A12; 109:79A,13 [sic]), probably of CG III date (see Coldstream 1999: 114–55, n. 1). Toumba Grave 97A is doubly important as it also contains two Attic Early Geometric oenochoae (e.g., Popham and Lemos 1995: fig. 2).

These (admittedly meager) early Cypriot ceramics at Lefkandi reinforce the impression expressed both by Schreiber and Gilboa (above) that in the Levant, too, Cypriot barrel juglets (in Ir1|2) are the harbingers of the import of BoR miniature containers (starting en masse in Ir2a).

The Euboean MPG range is currently dated ca. the late 11th century B.C.E. or to the first half of the 10th, and LPG either to the entire 10th century or solely to its second half (e.g., Popham, Sackett, and Themelis 1980: 355; Coldstream 1988: 38; 1989: 91; Kearsley 1989: 171, n. 1; Popham 1994: 14, 17; Lemos 2002: 26; but see Snodgrass 2000: table after p. 133). The Sub-PG I–II range is conventionally dated 900–850 B.C.E. and Sub-PG III 850–750 (Popham, Sackett, and Themelis 1980: 362; Coldstream 1988: 38; for previously suggested dates, see, e.g., Coldstream 1977: fig. 116 on p. 385). Following the conventional (high) Palestinian chronology would mean that the Euboean MPG | LPG transition

[28]The earliest Levantine ceramic vessel at Lefkandi is a dipper juglet in Skoubris Tomb 46, apparently of EPG date (Popham, Sackett, and Themelis 1980: pl. 106:46[3]). This pear-shaped juglet, with a relatively tall, concave neck, is a shape more typical of the early phases of the Iron Age I (until Ir1b), but it also occasionally occurs later. It would thus be unwise to base any concrete chronological inferences on it.

and the LPG horizon (paralleling Ir1|2 and CGI/IIb) should date to the early 10th century. This would fit the longer suggested range for LPG (encompassing the first half of the 10th century). If one accepts that Tel Hadar IV is an Ir1b context (ending in conventional Levantine chronology in the late 11th/early 10th century B.C.E.) *and* that it indeed reflects LPG,[29] then an even longer range, with LPG beginning in the 11th century, is warranted (for some implications of such a higher chronology for Greece, see lately Kopcke 2002: 115–17).

Defining the end of LPG depends on the reliability one assigns to the Greek sequence at Tyre. If one accepts Nitsche's suggestion, that Euboean Sub-PG I–II is first "really" attested at Tyre X-1 (end of Ir1|2 or early Ir2a), then in the conventional Levantine chronology (which places the beginning of Iron Age IIA = our Ir2a ca. 980 B.C.E.), the end of LPG must be placed around that date and the dates for Sub-PG raised accordingly. Such an association is reinforced by the reflection of the Ir2a = early CG III horizon in the Sub-PG II context at Toumba Grave 97A.

The low chronology, which has the Ir1|2 = CG Ib–II horizon starting around the turn of the tenth century B.C.E. at the earliest, would imply that the lower dates for Euboean LPG are more probable and can be left more or less intact. The Dor radiometric dates place this horizon after 880 B.C.E. Accepting them would mean that this horizon should be somewhat extended then, to encompass at least the first decades of the ninth century.

Regarding the Sub-PG sequence, there is no telling where the Sub-PG I horizon is to be situated vis-à-vis the east, but both Sub-PG II and III seem to overlap the Phoenician Ir2a (Iron Age IIA = early CG III). The low chronology, which places the beginning of Iron Age IIa in the ninth century B.C.E., can be reconciled with the conventional Greek chronology which places the beginning of Sub-PG at 900. The Dor radiometric dates, which place the beginning of this horizon around the mid-ninth century, will require a lowering of this date—a few decades later than in the conventional Greek chronology.

Lastly, new evidence for the correlation of the Levantine early Iron Age IIA with the Euboean PG/Sub-PG range has been recently forthcoming from the stratified Iron Age IIA sequence in A. Mazar's excavations at Tel Rehov (Coldstream and Mazar 2003: esp. table 1). Seven such stratified fragments were uncovered, whose distribution at Tel Rehov is as follows: Stratum VI, the earliest Iron IIA horizon there, *may* include one fragment, no. 2 (otherwise it belongs to Stratum V), whose exact definition within the LPG–Sub-PG III is problematic. Stratum V, the second Iron IIA stratum, produced three fragments: no. 1, whose typological definition is likewise not precise enough (LPG–Sub-PG III), possibly the above-mentioned no. 2, and two fragments of a pyxis (nos. 5, 6), which were assigned by Coldstream a Sub-PG II–III date, probably Sub-PG II (Coldstream and Mazar 2003: 37). Finally, Stratum IV, the last Iron IIA stratum, produced another Euboean Sub-PG I–IIIa fragment (no. 4), and two fragments of a better-dated Early Attic MG I skyphos (nos. 7, 8), probably paralleling Euboean Sub-PG IIIa (Mazar and Coldstream 2003: 38). Another LPG–Sub-PG I fragment, no. 3, was found out of context. Taking into account only those fragments at Tel Rehov that are both well stratified and can be assigned a relatively restricted typological range (only nos. 5–6 and 7–8), the correlation offered above seems to be reinforced: Euboean Sub-PG II–III fall within the Levantine Iron Age IIA (our Ir2a). There is not enough to the Tel Rehov finds to pinpoint Euboean PG or Sub-PG I relative to the Levantine sequence.[30]

We will all have to admit that the evidence is extremely meager and is both stratigraphically and typologically problematic. For this reason we refrained from adding Euboea to table 21. First and foremost, the Euboean MPG–LPG–early Sub-PG *typological* sequence is not yet securely enough formulated (see above and, e.g., Popham, Sackett, and Themelis 1980: 47; Kopcke 2002:116). If, for instance, more of the Euboean fragments in Ir1|2 = CG Ib–II contexts in the East can positively be demonstrated to be earlier than LPG (i.e., MPG), this would require further lowering of the dates mentioned above. A fair assessment of the currently available Levantine and Cypriot evidence seems to

[29]This would entail the assumption that the MPG sherd (the zigzag cup) at Dor, which was found in an Ir1|2 context, is residual.

[30]When considering the implications of the Rehov sequence for Greek chronology, Coldstream and Mazar employ the "revised high chronology" recently advocated by Mazar (see above, i.e., allowing a long time span for Iron Age IIA, ca. 980–830 B.C.E.). In essence, they endorse the conventional Greek chronology but do recognize the difficulties, chief among which is the presence of the Sub-PG II–IIIa pyxis (conventionally 875–825 B.C.E.) in Stratum V, for which Mazar advocates a destruction with Shoshenq I, ca. 925 B.C.E. (Coldstream and Mazar 2003: 40, 44–45).

indicate, however, that it is Euboean LPG, and apparently the MPG|LPG transition, which is reflected in the East in the Ir1|2 = CG Ib/II horizon.

SUMMARY

As befits its geographical and economic position, Phoenicia provides the clearest associations between the early Iron Age chronologies of the Levant, Cyprus, and (with lesser resolution) Greece. The detailed stratigraphic sequence in the southern Phoenician sites is especially instrumental in that it orders the typological evolution of Phoenician commercial containers, as well as that of Cypriot ceramics, with higher resolution than hitherto possible. These two pottery groups and (to a lesser extent) the Euboean Proto-Geometric one are distinct in that they are spatially widespread and thus overcome the inherent regionalism that obstructs meaningful cross-dating in the early Iron Age both within the Levant and across the Mediterranean.

Especially important in this sequence is the definition of the Ir1|2 horizon, a hitherto undefined period, clearly attested in Phoenicia at Dor and at Tyre (Strata XII, XI, and possibly both contexts of X). This period, in familiar Megiddo terms, should fit between the destruction of Stratum VIA and the formation of the VA–IVB ceramic assemblage (also equalling, for example, Yoqneʿam XVI and possibly XV as well). The fact that this is a time span for which some duration should be allowed is demonstrated by its Cypriot component—the period between mid-CG I and the onset of CG III. Any discussion of the chronology of the Megiddo VIA and VB–IVB horizons (e.g., Finkelstein 1998: 208) should allow some intermediate time span between the two.

A comprehensive Mediterranean chronological framework for the early Iron Age is long overdue. Without it, the course of the awakening of the Mediterranean littoral after the Late Bronze Age collapse, and hence the making of the world of the Iron Age, cannot be charted. We discussed some of the implications of the Levantine chronological debate for Mediterranean interconnections in Gilboa and Sharon 2001. Over and above the question of the historicity of the David and Solomon story cycle in the Bible, these include such issues as the beginning of Phoenician (and Greek) overseas ventures and the transmission of the alphabet to Greece. To note just one conspicuous example: a low, tenth century date for the Phoenician Ir1b = early to mid CG I would similarly date the earliest Greek syllabic inscription known from Cyprus (the Opheltas *obelos* from Tomb 49 at *Skales*), so crucial for constructing the process of hellenization of the island (e.g., Iacovou 1999b: 9, 11–12). This paper thus is also a call for specialists of those regions to join the Levantine Iron Age debate, as it affects them directly.

The radiocarbon results, both from Dor *and* Tel Rehov, indicate that the low chronology can no longer be brushed off.[31] However, we are in no position yet to proclaim this one correct or any other chronology obsolete. Thus with the current chronological maelstrom in Israel, we are unable yet to proclaim *ex oriente lux,* and the relative sequence proposed here is presented in the light of both chronologies.

What the controversy over the chronology of the Iron Age in the Levant should have taught all of us, whatever side of the debate we argue for, is that we cannot pin our hopes anymore on historical dead reckoning—in this case at least (contra, e.g., Coldstream 1999: 111). It is our conviction that the solution must be realized *archaeologically,* through the construction of high-resolution relative sequences nailed to an absolute time scale by ^{14}C dating. We are no longer talking of individual samples here and there or even the occasional cluster of dates, but of hundreds of samples, systematically collected. We are no longer talking of the odd type site whose pottery is taken to be representative, defining in broad strokes typological evolutions over large tracts of land, but of the painstaking working-out and weaving together of extremely local stratigraphic and typological sequences. The road will be long, and its price will be considerable—in actual money, in research time, in formation of broad interregional and interdisciplinary research groups, and ultimately in changing our mind set and the way we work. But no investment should be considered excessive. Practically every issue of early Iron Age archaeology, history, and historiography of the Mediterranean world is at stake.

[31] On the other hand, however, these dates do indeed place Iron Age IIA within the framework of the tenth and ninth centuries only, as do many other ^{14}C dates from other sites in Israel, Greece, and Cyprus (above). Suggestions for a drastic revision of Mediterranean chronology, inter alia lowering the beginning of Iron Age IIA to the early eighth century (e.g., James et al. 1991: 195, table 8:3; Rohl 1995; Porter 1999), cannot be upheld.

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