# SOME AEGEAN REACTIONS TO THE CHRONOLOGICAL DEBATE IN THE SOUTHERN LEVANT[1]

**Nicolas Coldstream**

***Abstract***

*This paper presents an Aegean angle on the current discussion about Early Iron Age chronology in the eastern half of the Mediterranean. Although lacking any evidence for absolute dates, the Aegean possesses a sound relative sequence, firmly based on several hundred closed groups, in single graves, of whole pots; these show a clear development evident in gradual changes of shape and of painted decoration. These small 'chronological calls' help to illustrate the pace of stylistic development in the various regional schools of Protogeometric and Geometric pottery.*

*Early Greek exports to five sites in the Southern Levant—Samaria, Megiddo, Tel Reḥov, Tel Hadar and Tel Dor—offer some hope of pegging the Greek sequence to reliable absolute dates obtained from Near Eastern historical records. Even if the quality of these correlations may sometimes be far from ideal, their cumulative evidence nevertheless produces an internally coherent picture for the Greek relative sequence. And, when one is face to face with a choice between the 'high' and 'low' chronologies currently being advanced in the southern Levant, the latter alternative offers by far the more credible pace of stylistic change in the Aegean.*

I welcome this opportunity to compare notes on the absolute chronology of the Early Iron Age in the eastern half of the Mediterranean—or, to use another metaphor, to put our chronological cards on the table. In the Aegean we have no *trump* cards: that is, no closed archaeological contexts that can be directly related to events carrying absolute dates in historical sources. For those we have to look to the East and, eventually, to the West. We do, however, have one strong 'suit of cards', in a firmly based relative sequence: firmly based on many hundreds of closed groups of whole pots with painted decoration, found in single graves. The vast number of these small 'chronological cells' enables us to construct a sequence of the Protogeometric and Geometric Style and also, thanks to recent excavations, from the graves at

---

[1] This is a slightly extended version of a paper read at the Third International Congress on the Archaeology of the Ancient Near East held in Paris in April 2002, as a contribution to 'Workshop 2: Chronology of the Levant in the Iron Age', organized by Profs. I. Finkelstein and D. Ussishkin. Prof. Maria Iacovou and Dr. Irene Lemos kindly made helpful comments on an early draft.

Lefkandi in Euboea. Correlations with other regional styles, largely through Attic exports or local Atticizing imitations, help us to build up a comprehensive network for the relative chronology of all the local sources of Geometric pottery (Coldstream 1968:327–330).

In our quest for absolute dates we must start at the end of the story, in the late eighth century. Then we look mainly to the West, to the dates given by Thucydides for the foundation of Greek colonies in Sicily (Coldstream 1968: 322–327); these are consistent with the context in which a scarab of the ill-starred Pharaoh Bocchoris (718–712 BCE) was found in a single grave at the earliest Greek colony in Italy, at Pithekoussai on the island of Ischia.[2]

In the East, a few Late Geometric scraps were found at Hama, the ancient Neo-Hittite of Hamath destroyed by the Assyrians in 720 BCE.[3] This find too, in spite of recent attempts to undermine the validity of its historical context,[4] is nevertheless consistent with the absolute dating evidence from the West.

Before the late eighth century, until recently, we would have had to go back four centuries to find another secure absolute date: back to the Philistine incursions recorded in Egyptian annals, coinciding with the middle stage of Mycenaean IIIC.[5] For the long interval we have had to rely on 'dead reckoning' for the estimation of absolute dates: that is, division into phases based on the stylistic evolution of fine painted pottery, and then the calculation of the relative length of each phase, using various criteria. Short and restless phases of ferment will become apparent, partly through a dearth of material, but more especially through much stylistic variation within the closed single grave groups. By contrast, long and stable phases are documented by a much greater abundance of grave groups that are also homogeneous in character, displaying a settled and harmonious style: phases for which we assume a comparatively slow development. On these criteria, in Attic terms, the long phases should be Late Protogeometric to which we would assign at least the second half

---

2 Buchner and Ridgway 1993:378–382, Grave 325.16; 777, Fig. 1. An argument against the validity of this source of absolute chronology (Gill and Vickers 1996) has been effectively countered in Ridgway 1999.

3 Riis 1970: 154; 160, Fig. 55. Of the sherds illustrated, group (a) comes from a fine Attic Middle Geometric II krater similar to that found at Samaria (see n. 7 below). The other pieces are LG, including a krater rim (b) with a zone of large blobs connected by wavy tangents, a favourite motif of the Euboean Late Geometric Cesnola workshop.

4 Francis and Vickers (1985:132–133) argue against the desertion of Hama after 720 BCE, citing statements in Assyrian records that 6,300 Assyrian and Median soldiers were stationed in the territory of Hamath after the fall of the Neo-Hittite kingdom. However, my colleague Prof. David Hawkins informs me that Assyrian records make no mention of the city Hamath after the conquest. The soldiers are thus more likely to have been quartered in the extensive country districts of the former Neo-Hittite kingdom.

5 Warren and Hankey 1989:158, 165–166.

of the tenth century, and especially Middle Geometric which would occupy almost a century after 850 BCE: a phase divisible into two stages, Middle Geometric I and II, with a comparatively slow stylistic movement. A relatively long span for Attic Middle Geometric is also supported by many correlations through exports to central Crete which produced three successive and relatively unstable styles between 850 and 750 BCE: the wild 'Protogeometric B' with its 'proto-orientalizing' curvilinear ornament, the brief and experimental Early Geometric, and eventually the local Middle Geometric, under strong influence (Coldstream 1968:234–244).

When we look for absolute dates for Middle Geometric, two correlations at sites in the southern Levant have been subjected to much critical appraisal (Fantalkin 2001), but should not be dismissed as without value. At Samaria, the excavations of Crowfoot and Kenyon in the 1930s produced six pieces of a fine Attic or Atticizing[6] pedestalled krater of a well-known type made towards the end of Middle Geometric II, which stood at least 40 cm. high. On the likely assumption that all six pieces belong to the same krater, I offer a reconstruction (Fig. 1), based on several similar vessels[7]: the main decoration would consist of a large central meander, flanked on each side by a horse with a bird under its belly. The fragments were retrieved from four different periods: V, VII, Hellenistic and Roman. Kathleen Kenyon, the excavator, expressed her considered opinion to P.J. Riis, that the original context should not be later than Period V (Riis 1970:146). Indeed, to argue for the possibility of any later context would be to imply that the extremely careful excavators would have missed one or more intrusive pits in their stratigraphical digging, which seems to me most unlikely. It is, of course, possible that all six krater sherds were residual in their recorded strata, churned up from an even deeper level than Period V. It should, however, be remarked that fine Attic Middle Geometric II kraters of this quality were not articles of casual trade: others were exported to Tyre, Hama and, in Cyprus, Salamis and Amathus—always to flourishing royal capitals, and possibly as gifts (Coldstream 1983:203). Thus, quite apart from Kenyon's stratigraphical observation, it makes good historical sense that such a vessel should be sent to Samaria in the reign of King Jeroboam II (788–747 BCE), during the prosperous apogee of the Northern Israelite kingdom (Finkelstein and Silberman 2001: 206–209).

Another Levantine correlation takes us back to the beginning of Middle Geometric. Among several pieces of Greek type found at Megiddo, the most diagnostic are

[6] Crowfoot and Kenyon 1957:210–12, Pl. 18. 1–2 (tentatively diagnosed as 'Argive'). Cf. Coldstream 1968:304.

[7] The *comparanda* are conveniently assembled in Davison 1961, Figs. 142a–b (Kerameikos 290), 143 (Kerameikos 1255) and 145 (Agora P 6422). For a similar composition, add the large pyxis Paris A 514, Coldstream 1968: Pl. 4e. On the relative date of the Samaria krater within this group see Coldstream 1968:304.

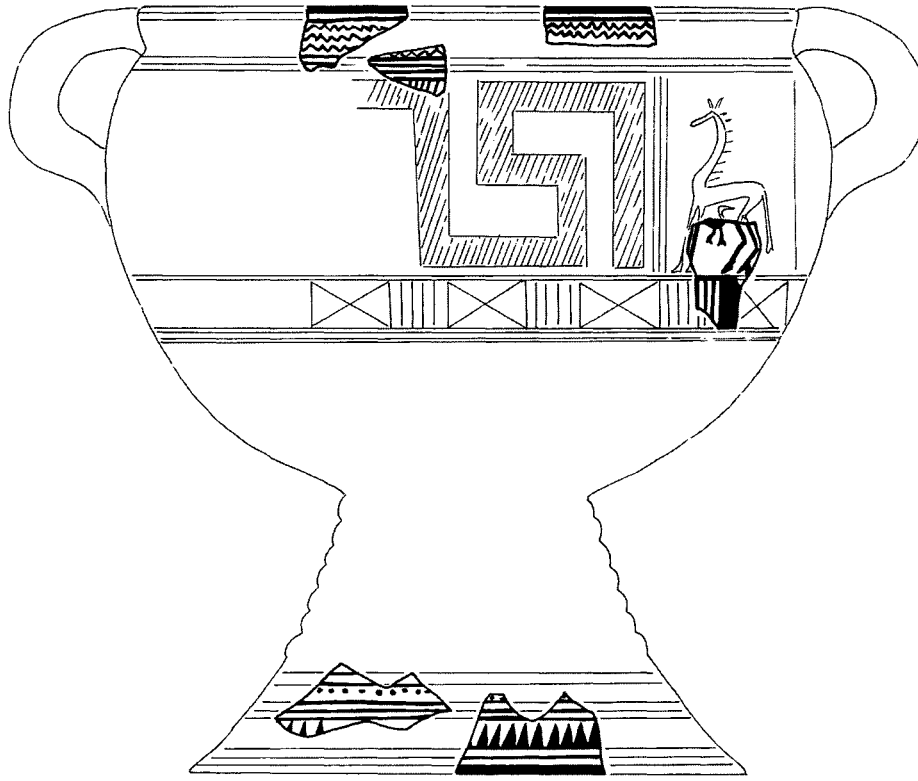


Fig. 1. Samaria. Attic EG II krater frs., with suggested restoration (sketch).

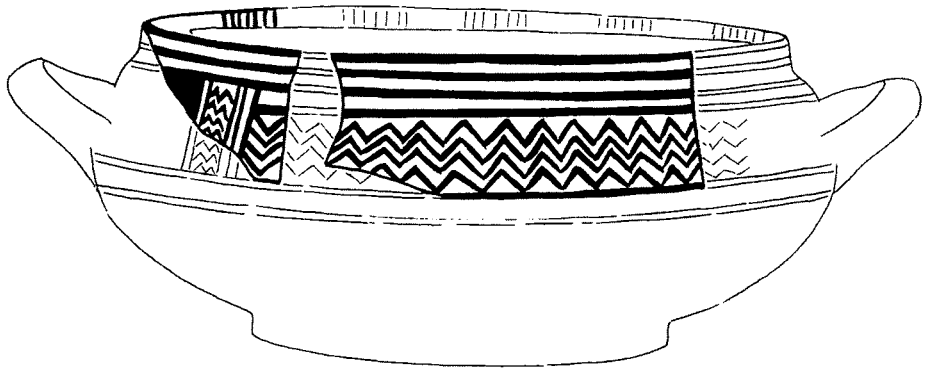


Fig. 2. Megiddo, Attic MG I skyphos frs. Restored after Kerameikos 867 (sketch).

the two rim sherds from what looks like an Attic skyphos, closely paralleled in a grave group in the Athenian Kerameikos cemetery, belonging to an early stage of Middle Geometric I.[8] Based on a close parallel in that Athenian grave, Fig. 2 offers a reconstruction of the skyphos exported to Megiddo. In response to an enquiry long after the excavation, a precise locus was given 'in the periphery of the town, near the fortification' in Stratum IV (Riis 1971:144-146, n. 587): that is, within the composite stratum now known as Va/IVb (see Addendum). During the preparation of my chronological chart over thirty years ago (Coldstream 1968:330) two alternative dates for this stratum were being proposed: Solomonic according to some, Omride in the view of others (Coldstream 1968:307–309). To accept the Solomonic dating would be to stretch the Middle Geometric phase over two whole centuries which, even for a stable phase, seems hardly credible; to do so would be to assign to Middle Geometric about half the total time-span between the fixed points derived from the Philistine incursions and the Greek colonial foundations in Sicily, at the expense of Early Geometric, the whole Protogeometric sequence, Submycenaean, and much of the Mycenaean IIIC development (Table I:b). Chronology based on 'dead reckoning' is like a concertina whose folds can be expanded or contracted according to the lapse of time between fixed limits with absolute dates; to stretch one particular fold bursting point would entail a collapse into absurdity. Little wonder, then, that for Aegean specialists the Omride date for the Megiddo context has seemed the more credible, producing a believable date in the mid 9th century for the outset of Attic Middle Geometric. Furthermore, such a date now receives powerful confirmation from the most recent excavations at Tel Reḥov in the Jordan valley, where a fire destruction horizon in the lower town (Stratum IV) contained two burnt sherds from a very similar Attic Middle Geometric I skyphos. This destruction is persuasively attributed to the invasions of King Hazael of Syria in the 830s BCE, following the fall of the Omride dynasty in Samaria (Mazar and Coldstream 2003, sherds nos. 7–8). This correlation, consistent with the attribution of Megiddo Va/IVb to the Omrides, may prove to be an exceptionally firm dating point for the early phases of Greek Geometric pottery in the 9th century—that is, if there can be a consensus among scholars concerning the destructions caused by the disturbances of the 830s.

Before passing on the more limited exports of Greek Protogeometric pottery, let us reflect on the quality of evidence that one should, in an ideal world, expect from correlations that can be considered really secure. First, the imports should be easily placed within a firm relative sequence in their homeland. Second, the imports should

[8] Many years after the Chicago excavation, these sherds were published in Clairmont 1955: 99–100, Nos. 1–2. Close parallels are to be found in the early Middle Geometric I grave, Kerameikos no. 13: cf. Kübler 1954: Pl. 89.

have been found in homogeneous closed deposits, datable in the local sequence within narrow limits. And third, since a single import could be dismissed as a curio, perhaps treasured as an exotic possession long after its manufacture, we should pay more attention to imports found in quantity. Of these three criteria, the Greek imports to Megiddo and Samaria satisfy only the first—especially the Middle Geometric I skyphos from Megiddo, commonest among all Greek drinking vessels and with a well-documented sequence in the single graves of Attica. The two sherds from a similar skyphos found at Tel Reḥov have the added advantage of a firm stratigraphical context, datable from historical records.

We can now move forward to other recently discovered correlations in the Southern Levant, though backwards in ancient time to the earlier part of our 'dead reckoning' period for the chronology of Greek pottery.

In the Aegean, the Protogeometric sequence and its Submycenaean antecedents were at first known in their Attic manifestations (Desborough 1952; 1972). Later, discoveries at Lefkandi in Euboea helped to fill in a contemporary local sequence, documented from nearly 200 single grave groups (Desborough 1980) and also from well-stratified settlement deposits—especially the massive debris of Middle Protogeometric pottery from the ruins of the huge apsidal building (Catling and Lemos 1990). Meanwhile, specialists in Mycenaean IIIC have outlined a long development after the Philistine fixed point, bringing the end of that phase well down into the early 11th century (Warren and Hankey 1989:167–169). The intervening Submycenaean phase, without much internal development, has always been considered short. Even so, it becomes difficult to envisage a Protogeometric style beginning much before the millennium, with short Early and Middle phases leading to a longer Late Protogeometric filling at least the second half of the 10th century BCE.

Two sites in the Southern Levant have recently produced what may prove to be useful correlations through imports of Euboean Protogeometric. At Tel Hadar, on the eastern shore of the Sea of Galilee, fragments of a large Euboean open vase (Coldstream 1998:357–359), of which Fig. 3 is a reconstruction, was found together with over 100 whole vessels mainly of Phoenician type, in the destruction of a warehouse--a destruction that seems to have been general over the whole site. For those who support the Solomonic date for the context at Megiddo, this destruction would have been anterior to the alleged conquest of the state of Geshur by King David, for which the traditional biblical date is *ca.* 980 BCE (Kochavi 1998:470). However, the validity of Davidic and Solomonic chronology has been challenged (Finkelstein and Silberman 2001:340–344), and proponents of a lower dating might prefer to attribute the devastation of Tel Hadar to the marauding expedition of the Pharaoh Shishak in *ca.* 925 BCE. But how far does this correlation satisfy our three criteria? On the first count, it is unfortunate that

Lefkandi offers no parallel to the shape of the Euboean vessel, a clay version of a bronze lebes or cauldron; but on style we would assign it in our relative chronology to somewhere near the change from Middle to Late Protogeometric in the mid 10th century.[9] On the other counts: although occurring in a firm destruction deposit that could carry an absolute date, it is unique, and was found broken and burnt. It may therefore have had a history quite different from the numerous Phoenician vessels found in the same context, in mint condition. When whole, its use might have been considerably earlier than the date of the destruction. Again, it is the lower chronology that is consistent with our estimated dates for the Euboean Protogeometric sequence, whereas a destruction dated by Davidic chronology would push the beginning of that sequence well back towards 1100 BCE, causing an uncomfortable congestion (again, Table 1:b) for the long development of Mycenaean IIIC followed by Submycenaean and, consequently, a gaping void in the 10th and 9th centuries which would have to be filled by a Middle Geometric improbably extended backward in time.

Another potentially useful correlation should be forthcoming from the current excavations at the large coastal site of Tel Dor. Lying outside the kingdom of Israel, this site offers no absolute dates associated with events or rulers mentioned in historical records. Nevertheless, it has produced an extremely well-stratified series of settlement deposits extending all through the local Iron Age I and IIa phases, and displaying frequent contacts with Cyprus (Gilboa 1999). A transitional stratum between Iron I and II contained the only diagnostic Greek import: a rim sherd from a Euboean cup with a scribbled zigzag on the lip,[10] belonging to a high-footed type found mainly in the Late Protogeometric graves of Lefkandi.[11] In the Aegean we would estimate its date at somewhere in the second half of the 10th century (Table 1: a); but the conventional high chronology, based on Davidic and Solomonic dates, would place its context no later than the early 10th, and possibly back in the 11th century BCE.

But, quite apart from the question of absolute chronology, this Euboean cup can be correlated with the Cypriot sequence in a way not possible, so far, anywhere in Cyprus. The previous stratum, Iron Ib, contained imports of Cypro-Geometric I, whereas the Euboean cup in the stratum of Iron I/II was accompanied by later

---

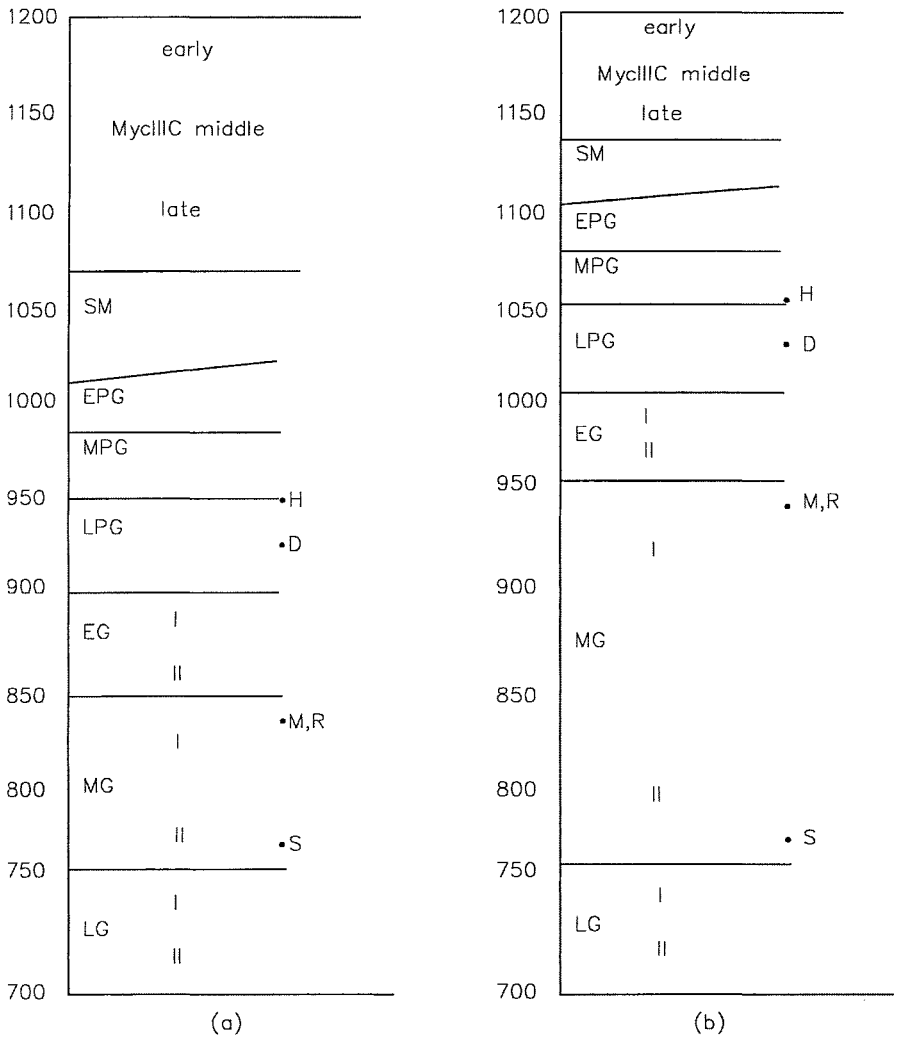
[9] For a discussion of the date of this problematic piece see Coldstream 1998:357–359, with the comments of Dr. Lemos (n. 25).

[10] I thank Prof. E. Stern, director of the excavations at Tel Dor, for permission to mention this piece.

[11] Lefkandi, Toumba Grave 44.5: Popham, Touloupa and Sackett 1982:226, Pl. 24. On the development of these cups, see Desborough 1980:295, Class III.

# TABLE 1. THE AEGEAN RELATIVE SEQUENCE PEGGED TO ABSOLUTE DATES BY LOW AND HIGH CHRONOLOGY IN THE SOUTHERN LEVANT

LOW (A) HIGH (B)




Correlation points: H=Tel Hadar; D=Tel Dor; M=Megiddo; S=Samaria; R=Tel Rehov.
Sources for dates in Column a: Myc. IIIc, SM: Warren and Hankey 1989:169. EPG, MPG, LPG: I.S. Lemos, *The Protogeometric Aegean* (2002) EG, MG, LG: Coldstream 1968:330..

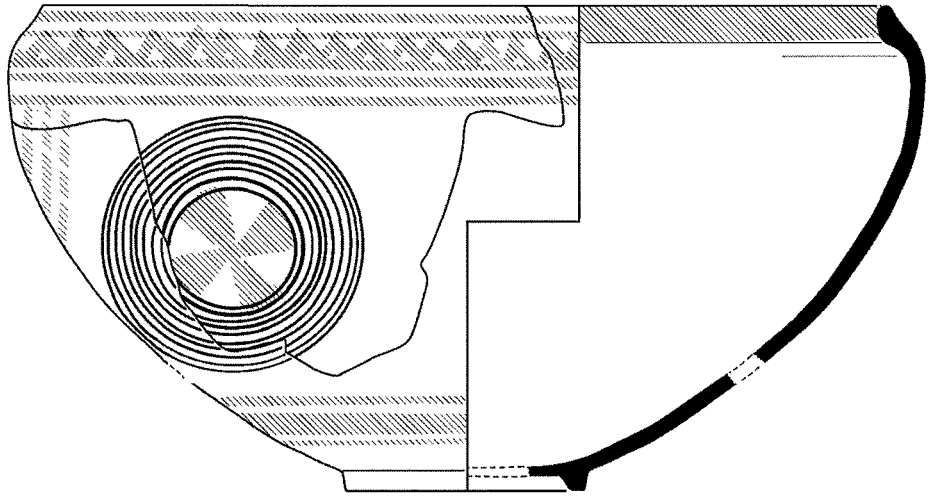


Fig. 3. Tel Hadar, Euboean PG lebes frs.

Cypro-Geometric I and some Cypro-Geometric II (Gilboa 2001:1345). In Cyprus the boundary between those two phases is currently placed somewhere around 950 BCE (Gjerstad 1948:421-422). If we bear in mind that Cypriot deposits, through local conservatism, may often contain a residue of pottery in an earlier style, then a mid-to-late 10th-century date seems equally likely for both the Cypriot and the Euboean imports in the transitional Iron I/II context at Tel Dor.

Partly owing to shortage of time, my choice of sites has been selective. I have not considered the destruction of Tell Abu Hawam Stratum III, with so many alternative destruction dates (Coldstream 1968:305). Nor have I paid attention to the Greek exports to Tyre and Al Mina which, though more numerous than anywhere in the southern Levant, are not linked in their context to any event recorded in historical sources. As for the correlations expounded in this paper, some have been subjected to adverse criticism, or dismissed as a 'straw in the wind'. But in their defence I would argue that, if they cohere together to produce a chronological system that proves to be mutually and internally consistent, then they become a 'bundle of straws' not so easily blown away by the strong winds of skepticism. Furthermore, the securely datable context of the Attic skyphos sherds in the burnt destruction of Stratum IV at Tel Reḥov now encourages confidence in a mid 9th century date for the beginning of Attic Middle Geometric I.

In brief: the Aegean, though lacking in absolute dates, is rich in small 'chronological cells' that help to build up a reasonable chart of development over four centuries, using the perfectly logical method of 'dead reckoning'. And at the various points where correlation with the southern Levant offers hope of a contact with eastern historical records, a comparison of (a) with (b) in Table I will leave no

doubt that the 'low chronology' recently advanced in Israel offers the more credible pace of development in the Aegean.

## ADDENDUM

Prof. D. Ussishkin, current co-director of excavations at Megiddo, has kindly informed me (letter of 3.7.2003) that in his view Locus 376, containing the skyphos sherds, is stratigraphically unreliable. He adds: "It is an open area between the Stratum IVa city wall and Palace 338 which could have been built in Stratum IVa, or according to another opinion, already in Stratum Va–IVb. The area between these two structural elements is composed largely of fills, and of course part of them could have even been deposited in a later period".

The chronological correlation with the Aegean, however, is not thereby impaired, in view of the firm destruction context of Stratum IV at Tel Reḥov, containing burnt sherds from a very similar early Middle Geometric I skyphos (Mazar and Coldstream 2003: sherds 7–8).

## REFERENCES


Buchner, G. and Ridgway, D. 1993. *Monumenti Antichi: Pithekoussai I. La Necropoli: tombe 1-723 scavate dal 1952 al 1961.* Rome.

Catling, R. W. V. and Lemos, I. S. 1990. Lefkandi II. 1.: In: Popham, M.R., Calligas, P.G. and Sackett, L. H. eds. *The Protogeometric Building at Toumba: The Pottery.* London.

Clairmont, C. 1955. Greek Pottery from the Near East. *Berytus* 12:85–141.

Coldstream, J.N. 1968. *Greek Geometric Pottery: a Survey of Ten Local Styles and their Chronology*. London.

Coldstream, J.N. 1983. Gift Exchange in the Eighth Century BC. In: Hagg, R. ed. *The Greek Renaissance of the Eighth Century BC. Tradition and Innovation.* Stockholm: 201–207.

Coldstream, J.N. 1998. The First Exchange between Euboeans and Phoenicians: Who Took the Initiative? In: Gitin, S., Mazar, A. and Stern, E. eds., *Mediterranean Peoples in Transition, 13th—10th centuries BCE*. Jerusalem: 353-360.

Crowfoot, J. W. and Kenyon, K.M. 1957. *Samaria-Sebaste III. The Objects from Samaria*. London.

Davison, J. M. 1961. *Attic Geometric Workshops.* (Yale Classical Studies 16). New Haven.

Desborough, V.R. d'A. 1952. *Protogeometric Pottery.* Oxford.

Desborough, V.R. d'A. 1972. *The Greek Dark Ages*. London.

Desborough, V.R. d'A. 1980. The Dark Age Pottery (SM – SPG III) from Settlement and Cemeteries. In: Popham, M.R. and Sackett, L.H. eds., *Lefkandi I. The Iron Age Settlement and Cemeteries*. London: 281–350.

Fantalkin, A. 2001. Low Chronology and Greek Protogeometric and Geometric Pottery in the Southern Levant. *Levant* 33:117–125.

Finkelstein I. and Silberman, N. A. 2001. *The Bible Unearthed: Archaeology's New Vision of Ancient Israel and the Origin of its Sacred Texts.* New York.

Francis, E.D. and Vickers, M. 1985. Greek Geometric Pottery at Hama and its implications for Near Eastern Chronology. *Levant* 17:131–138.

Gilboa, A. 1999. The View from the East – Tel Dor and the Earliest Cypro-Geometric Exports to the Levant. In: Iacovou, M. and Michaelides, D., eds. *Cyprus: the Historicity of the Geometric Horizon*. Nicosia: 119-139.

Gilboa, A. 2001. Early Iron Age Radiometric Dates from Tel Dor: Preliminary Implications for Phoenicia and Beyond. *Radiocarbon* 43:1343–1351.

Gitin, S., Mazar. A. and Stern, E. eds. 1998. *Mediterranean Peoples in Transition, 13th—10th centuries BCE*. Jerusalem.

Gjerstad, E. 1948. *The Swedish Cyprus Expedition* IV. 2. *The Cypro-Geometric,*

*Cypro-Archaic and Cypro-Classical Periods.* Stockholm.

Kochavi, M. 1998. The Eleventh Century BCE Tripartite Pillar Building at Tel Hadar. In: Gitin, S., Mazar, A. and Stern, E., eds., *Mediterranean Peoples in Transition, 13th—10th centuries BCE.* Jerusalem: 468–478.

Kübler, K. 1954. *Kerameikos* V.1. *Ergebnisee der Ausgrabungen: die Nekropole des 10 bis 8 Jahrhunderts.* Berlin.

Mazar, A. and Coldstream, N. 2003. Greek Pottery from Tel Reḥov and Iron Age Chronology. *IEJ* 53:29–48.

Popham, M.R., Touloupa, E. and Sackett, L.H. 1982. Further Excavations of the Toumba Cemetery at Lefkandi, 1981. *Annual of the British School at Athens* 77: 213–248.

Ridgway, D. 1999. The Rehabilitation of Bocchoris: Notes and Queries from Italy. *JEA* 85:143–152.

Riis, P.J. 1970. *Sūkās I. The North-East Sanctuary and the First Settling of Greeks in Syria and Palestine.* Copenhagen.

Warren. P. and Hankey, V. 1989. *Aegean Bronze Age Chronology.* Bristol.