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Local Exchange in Prehistoric Cyprus: An Initial Assessment of Picrolite

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Evidence for pre-Bronze Age Cypriot contacts is exceedingly rare. Picrolite, a soft, attractive rock, was used throughout the period, and preliminary analysis (Xenophontos 1991: 127–38) suggests that it was derived as water-worn pebbles from the Karyotis and Kouris rivers. Examination of its use in the Chalcolithic period reveals marked inter- and intrasite inequalities. A reciprocal exchange network, associated with social divisions and perhaps marriage alliances, is postulated. The material was primarily exchanged in raw form, and nonspecialists produced items locally. Although Erimi may have grown large because of its advantageous location beside the major source, there is still no evidence that this led to the formation of hierarchical society based on the control of the prized resource. The limited evidence rather suggests that the picrolite network sustained existing sociopolitical structures.

INTRODUCTION

Evidence for foreign and local contacts in Cyprus before the Bronze Age is so sparse that the island's insular and regional isolation may be not only symptomatic of, but also a cause of the conservatism of its cultures. The dearth of unambiguous archaeological indicators for internal contacts suggests the existence of autonomous communities, but that leaves unanswered the question of the means of social integration that formed relatively homogeneous cultures throughout the island. The island's internal topography also promoted isolation, as Ross (1845, in Christodoulou 1959: 97) confirmed when he described the sequestered lives of more recent villagers: "The men [from Akanthou] sometimes, but seldom, cross the [Kyrenia] mountains into the [Central Lowlands] and even as far as the 12-hours away market of Nicosia. . . . But women are born and die here without having seen more of the world than their village." Ross was writing in 1845, when pack animals for travel were common. Communication was undoubtedly more difficult prior to the arrival of transport, roads, and bridges. It is nonetheless the contention of this article, that the motives for con-

tact between villages in prehistoric times were strong, that intercommunity exchange may be assumed to have existed since it is pervasive in most societies (Bender 1985), and that the seeming self-sufficiency of Neolithic and Chalcolithic villages in Cyprus is more apparent than real.

There are compelling general reasons for assuming the existence of local contacts within small-scale, agricultural societies. Plog (1980: 138) notes three of these:

- *Temporal variation in resource availability.* Rainfall maldistribution is an intractable, recurrent problem in Cyprus, causing drought and local shortages in essential foodstuffs (Christodoulou 1959: 28–30). For economic prehistorians like Runnels and van Andel (1988), foodstuffs are regular components of trade, but in the case of localized contacts in Cyprus, that is unlikely to have been a major risk-avoidance strategy. More important was an information network that could be utilized in times of need.

- *The maintenance of political alliances.* Although some settlements were enclosed by walls and ditches in the Neolithic period (Karageorghis 1982: 21–22, 28–30), there are no obvious weapons in the tool kits. Nevertheless, conflicts are likely to have arisen

because of the proximity of many Late Neolithic and Chalcolithic communities. Institutions no doubt existed for the conduct of relations between groups.

● *Marriage networks.* A number of studies conclude that villages with populations under 500 need to practice exogamy. Thus, in his analysis of the Tsembaga, Rappaport (1967: 102) found that it was difficult for a population of about 425 to survive without exogamy. Wobst (1974), using life model tables, similarly concluded that it was necessary for populations of 145 to 475 to take part in extended marriage networks. Most Cypriot prehistoric sites are of the order of 3 to 5 ha, and thus well below the 500 population threshold. In those cases the need for exogamy probably promoted intervillage and interregional relations for mate selection. Little is known of the dynamics of site clusters, a Cypriot phenomenon, but it is doubtful that they raised regional population densities to thresholds that obviated the need for extended marriage networks.

The case for resource heterogeneity as a stimulant to the formation of exchange systems is powerful (e.g., Ericson 1977, and for Cyprus, Stanley Price 1979a: 70–71), but pre-Bronze Age Cypriot settlements are largely confined to similar ecozones and it may be inappropriate to project back later adaptive strategies. Contrasting site locations of later periods fostered the establishment of fairs and markets as nodal points for the exchange of produce. Christodoulou (1959: 102) remarks that such events were “associated with shrines, monasteries, churches or icons. They are pilgrimages, occasions for merrymaking, but also places of a large volume of trade.” Strabo’s description of the fair at Palaepaphos confirms the antiquity of such gatherings from all over the island and their connection with religious ceremony by Roman times at least (*Geographia*, 14.6.3). The system depended on upland settlements to provide complementary foodstuffs, but extension into the hill zone was subject to fluctuating sociopolitical trends and the first significant settlement inroads occurred only in the Iron Age (e.g., Rupp *et al.* 1986). Earlier, the Central Massif and Chalk Plateau were largely unoccupied and the few higher altitude villages were usually on valley sides, which, apart from fruit, today produce similar crops to those of lower altitude villages.

For Runnels and van Andel (1988), “cash crops” and hence specialized production for accumulation of wealth through trade, were as old as subsistence farming; but agriculture for profit has yet to be

demonstrated in small-scale prehistoric societies. Widespread subsistence homogeneity as well as a varied comestible base in Cyprus is suggested by the similarity of fauna and flora from northern and western sites (see Kylo 1982 for the north, Colledge 1980 for the west of the island). Possible exceptions include salt and fish. Stanley Price (1979a: 70) draws attention to the limited availability of the former in the Salt Lake beside the Bay of Larnaca. While that was certainly a major source, smaller quantities can be obtained in coastal rock pools around the island. Desse and Desse-Berset (1984) suggest that specialist fishermen kept their tackle along beachheads, but the absence of evidence for any deep sea fish at Khirokitia and other Neolithic and Chalcolithic sites indicates only limited inshore maritime contact and hence reduced opportunity for contact. Much more significant for the issue of contact are the consistently high proportions of fallow deer in faunal assemblages. Croft (this issue, pp. 63–80) shows that herds were most likely managed. Collection of shed antlers also indicates that the deer were not just randomly hunted, but regularly followed, their habits closely observed. Although fallow deer territories need not be extensive, contact with other groups is likely to have occurred to allocate rights to lands and resources.

In spite of the geographical ubiquity of many basic natural resources in Cyprus, full economic autonomy remains unlikely, not least because of acute rainfall variability. Extensive exploitation of fallow deer, moreover, required mechanisms to avoid or resolve conflicts over access to wandering herds.

Indisputable material evidence for contact remains tenuous, largely due to the close juxtaposition of diverse ecological zones in Cyprus. Secondary deposits of various stones and minerals, well beyond their “natural” locations, were also produced by rivers. In addition to salt and picrolite (see below), Stanley Price (1979a: 70) lists igneous rocks, flint, copper, umbers, and marine shells as materials whose acquisition would have required distant travel in some areas. Gabbros, pyroxene andesite, and quartzitic sandstone were also exploited by prehistoric communities, but it is not yet known how widely dispersed all the sources are (see Elliott 1981: 16–17; 1983: 33; Bolger 1988: 82; Leheavy 1989: 208). Flint and chert requires much more study (Betts 1987); but, like umbers, they are fairly common. The location of copper outcrops in the Ktima Lowlands, well away from the famous copper belt encircling the Troodos Mountains

(Zwicker 1988: 427–28), means that potential sources are much closer to metal-yielding sites than has generally been realized. However, the island origin of the few known copper artifacts is disputed (Stos-Gale, Gale, and Zwicker 1986: 135). So many sites are within easy reach of the sea that, with the possible exceptions of a few inland sites like Kritou Marrottou, Kannaviou (Fox 1988: 21–22), and Dhali (Lehavy 1989: 211), access to marine shells may not have necessitated contact or travel beyond village territories.

To this list may be added pottery, obsidian, carnelian, calcite, “marble,” and ivory. Identification of the last three, from Kalavassos-Ayios (Todd 1986), still requires confirmation. Real marble is not native to Cyprus. Nor are obsidian and carnelian, but it is uncertain whether such materials were traded or brought by colonists during the Aceramic Neolithic period. The extended range of C-14 dates for Aceramic sites increasingly supports the argument for obsidian exchange, perhaps in a down-the-line network through Troulli.¹ The paucity of obsidian and carnelian at later sites raises the problem of whether they were imported then or simply collected from Aceramic locations. Although pottery usually is assumed to be locally manufactured in small-scale societies, cross-cultural studies increasingly demonstrate that even coarse wares traveled considerable distances (e.g., Plog 1980; Peacock 1988). Frankel (1974: 47–51) links the creation of regional Middle Cypriot styles to copper exchange and the movement of people rather than to direct trading of pots. A similar investigation of interaction between regional styles, supported by petrographic analysis, is warranted for the periods under discussion here. Classes such as white clay wares at Sotira (Stanley Price 1979b: 69) and western Red and Black Stroke Burnished Ware in the east (Peltenburg, in press) are plausible intrusives. Recent discoveries at Kissonerga-Mosphilia have provided evidence that exotic items occasionally reached Cyprus during the Chalcolithic. They include flints (Betts 1987), chlorite, and faience (Peltenburg 1990: 155). These rarities serve to indicate the gradual breakdown of Cypriot insularity during the third millennium B.C.

THE SOURCES OF PICROLITE

Taken together, current archaeological evidence articulates suspected intercommunity ties poorly, but research aimed at monitoring them and assessing their role in communal integration is still lack-

ing. The deficiency is not so much the absence of nonlocal materials as the absence of characterization studies. Picrolite may lend itself to this type of analysis because it was used widely for ornaments throughout the pre-Bronze Age (fig. 1) and it comes from only a few sources. Vagnetti (1980: 38), Karageorghis (1982: 36), and South (1985: 68), for example, believe that this attractive blue and green rock was extracted from western locations or that figurines were manufactured there. Stanley Price (1979a: 70) regards it as more likely coming from the central mountains, which prompted the exploration of the Troodos Massif; and Peltenburg (1982b) holds that its extraction as water-worn pebbles from central rivers may have led to the “discovery” and use of copper. Elliott (1981: 17, n. 7) and Peltenburg (1982b) suggest that, in addition to the Kouris river, the Dhiarrizos may also have picrolite or serpentinite, but the suitability of material from the valley is doubtful. Hancock and Fox (in press) conclude that the Kouris river was the most likely source for 41 analyzed archaeological samples. Bolger (1988: 128–29) is the only scholar to have assessed the social implications of picrolite acquisition. In her reappraisal of the Erimi settlement, she argues that the occupants of the site extracted picrolite from the adjacent Kouris river, and that the exploitation of that resource became a mainstay of the economy. The exceptional size and longevity of Erimi may thus be based upon its location beside a natural resource that its inhabitants exploited to enhance prestige or to accumulate wealth and power through trade.

Xenophontos (this issue, pp. 127–38) gives an account of picrolite sources surveyed by him and the author, and presents problems of identification and initial analytical conclusions. His preliminary x-ray diffraction analyses demonstrate that the geochemistry of ten artifacts from sites as far apart as Vasilia, Erimi, and Miliou (fig. 2) is consistent with the Troodos sources. The headwaters of the Kouris and Karyotis rivers, the only verified picrolite carriers, lie in those mountains, and since riverine pebbles are found on archaeological sites, it is suggested that picrolite was acquired from those rivers rather than from *in situ* seams that would have required laborious quarrying.²

Picrolite is a nonessential, nonutilitarian, “valuable” material, and hence its widespread distribution probably was significant in sociopolitical contacts among villages. In theory, therefore, it should provide considerable insights into the integration of regions, but in practice it is difficult to

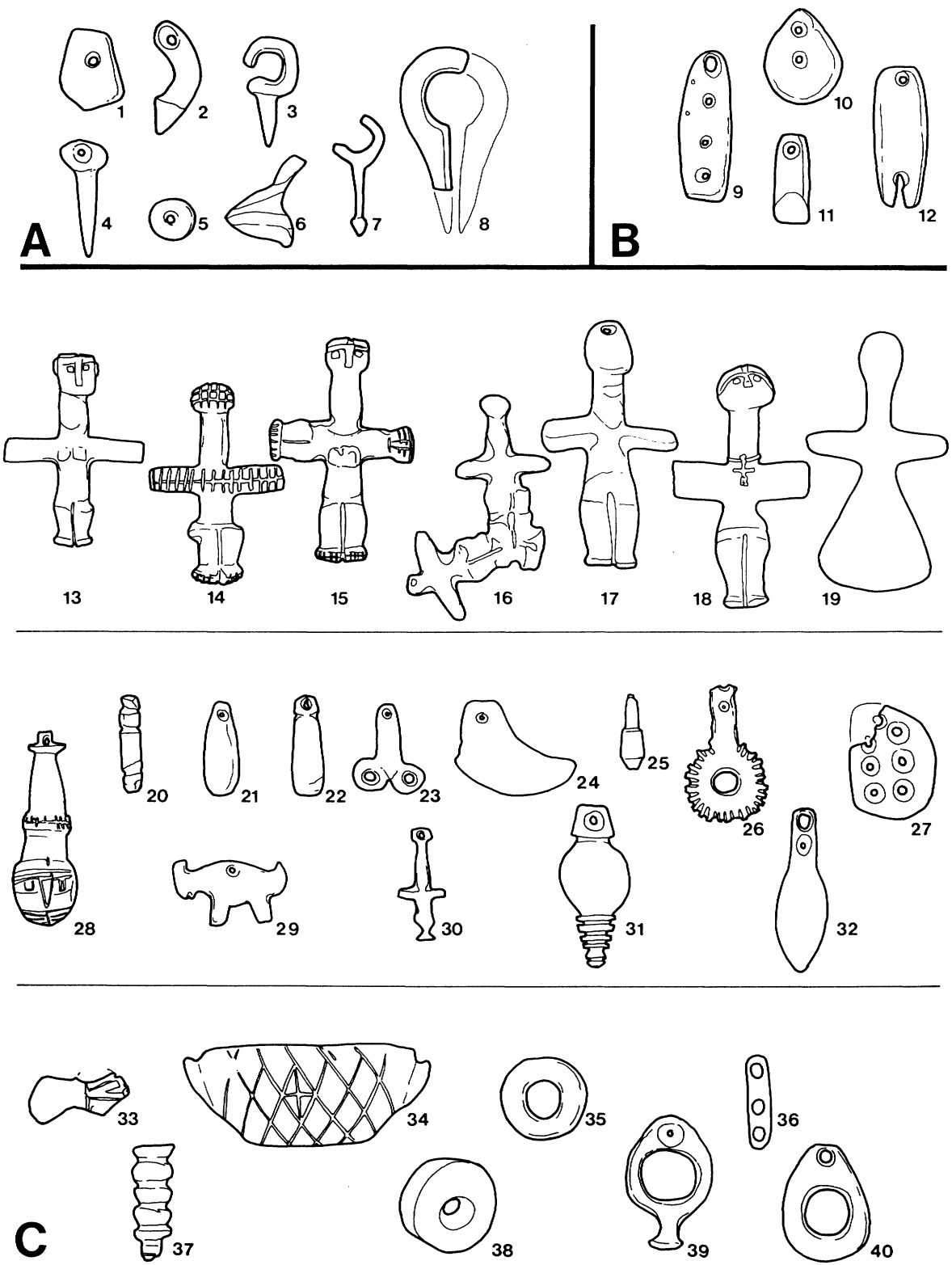


Fig. 1. Typical microlithic artifacts in eighth to sixth millennium (A), fifth millennium B.C. (B), fourth to third millennium B.C., (C) Cyprus.

make sound inferences. General reasons are the usual limits imposed by the biases of archaeological recovery, variation of symbolic and ideological meaning of the objects, applicability of cross-cultural analogies and interpretation of distribution maps based on the final resting place of the objects rather than the direct evidence of transactions (cf. Welinder 1988; see also below). In addition, a number of limitations are particular to this data set.

Material Identification. Not all blue rock is picrolite and not all picrolite is blue. It was first correctly and consistently identified in the archaeological literature by Manglis (in Dikaïos 1953: 441), the geologist whom Dikaïos consulted; but scholars frequently continued to refer to it as “steatite” (e.g., Pantazis 1980). In spite of Xenophontos’ arguments (1982), other terms for the same material, such as antigorite and serpentinite, continue to appear in the literature.³ Although confusion in terms persists, most archaeologists acknowledge that they are usually referring to visually identical material. Xenophontos confirms that all the examples studied are picrolite. The remainder, visually identical artifacts, most likely will also prove to be the same, and they are so treated here regardless of conflicting nomenclatures (listed under “comments” in Tables 1–5).

Sample Magnitude. Some 700 provenanced artifacts relating to ca. 6000 years of prehistory have been recorded. More provenanced examples are known and a larger corpus is desirable to interpret distribution patterns more satisfactorily than is possible at present. Since most of the artifacts

belong to the Chalcolithic, that period is the most promising for study.

Contexts. The number of samples suitable for distribution analysis is limited, since such an analysis must exclude the many picrolite objects looted from settlements and cemeteries. In diachronic studies, it is also necessary to treat cautiously those from multiperiod sites, even when recovered by controlled survey.

Fakes. The material is easily carved and fakes are known. Material without verified provenance and properly controlled recovery is excluded.⁴

Differential Retrieval. Fewer Chalcolithic sites have been systematically explored in the east, center, and north of the island than in the south and west. This geographical bias is much less acute in the Aceramic and Late Neolithic periods, but in the Chalcolithic it remains a significant problem.

USES OF PICROLITE IN PREHISTORIC CYPRUS

Picrolite use and distribution have only been considered indirectly, usually in typological treatments of the striking cruciform pendant figurines (fig. 1c.13–19) of the Chalcolithic period (e.g., Vagnetti 1974; 1975; 1980; Karageorghis 1977: 27–30; Morris 1985: 122–32). Those studies lack a contextual approach that is essential for an evaluation of the procurement system.

Picrolite has great potential for colorful personal ornaments and it may have been so used already by

- Fig. 1:** 1–6. Khirokitia (Dikaïos 1953: pls. 141–42:1014, 293, 1282, 1006, 758, 1037).
 7. Kalavassos-Tenta (Todd 1977: pl. 11:8).
 8. Khirokitia (Dikaïos 1953: pl. 142:1110).
 9. Ayios Epiktitos-Vrysi (Peltenburg 1982a: 362, fig. 62:485).
 10–12. Sotira-Teppes (Dikaïos 1961: pl. 102:86, 417, 121).
 13. Lemba-Lakkous (Peltenburg *et al.* 1985: fig. 80:1).
 14–16. Souskiou-Vathyrkakas (Vagnetti 1980: pls. 3:6, 12, 4:10).
 17. Kythrea (Vagnetti 1974: pl. 5:4).
 18. Yalias (Vagnetti 1974: pl. 5:1).
 19. Unprovenanced (Vagnetti 1979: pl. 12:1).
 20–27. Lemba-Lakkous (Peltenburg *et al.* 1985: fig. 83:1, 8, 9, 15–19).
 28–30. Souskiou-Vathyrkakas (Vagnetti 1980: pls. 11:42, 12:65, 13:66).
 31. Kissonerga-Mosphilia No. 2015.
 32. Nicosia-Ayia Paraskevi (Stewart 1962: 262, fig. 105:7).
 33. Lemba-Lakkous (Peltenburg *et al.* 1985: fig. 83:20).
 34. Souskiou-Vathyrkakas (Vagnetti 1980: pl. 19:107).
 35–36. Nicosia-Ayia Paraskevi (Stewart 1962: 262, fig. 105:2, 6).
 37–38. Souskiou-Vathyrkakas (Vagnetti 1980: pl. 18:102, 105).
 39–40. Nicosia-Ayia Paraskevi (Stewart 1962: 262, fig. 105:8, 11).

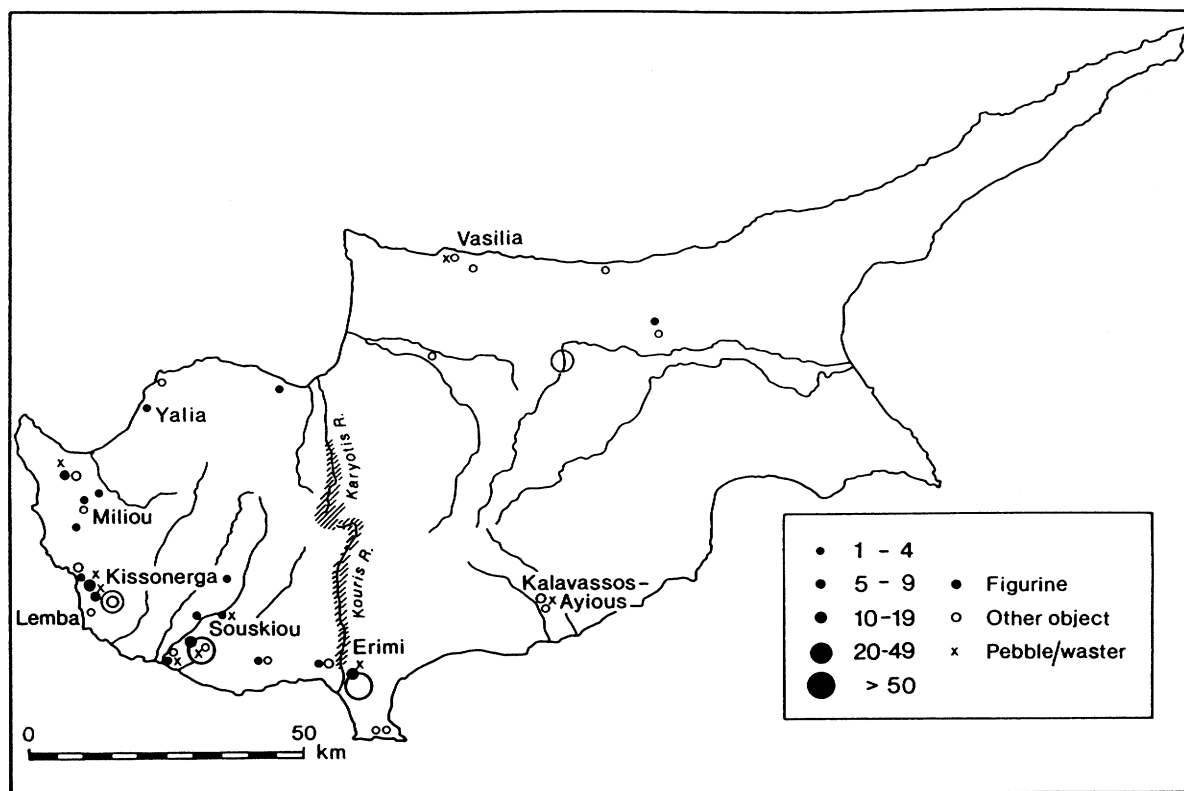


Fig. 2. Distribution of Chalcolithic picrolites of the fourth to third millennium B.C., including those not attributable to a specific millennium. Kouris and Karyotis River drainages are shaded.

the first visitors or colonists of Cyprus in the ninth to eighth millennium B.C. (fig. 3a; Appendix, Table 1). If the beads from Akrotiri prove to be from ninth to eighth millennium B.C. *in situ* deposits, it would seem likely that the occupants traveled around the bay to the west of the peninsula and foraged along the lower reaches of the Kouris River where picrolite is plentiful.

The use of picrolite is well attested subsequently in Aceramic Neolithic settlements, where carvers developed a highly distinctive repertoire of pendants, "dress pins," beads, rings, and small vessels (fig. 1a). Identification of some of the pieces as amulets and dress pins is speculative; some could equally well have been labrets, noserings, or earrings. In Upper Egypt, for example, shapes like the dress pins (fig. 1a.8) are referred to as hair rings (Williams 1983: pl. 109). Unfortunately, information on associations between picrolite adornments and their wearers is poor.⁵ In his publication of Khirokitia, Dikaios (1953) and most other fieldworkers of his generation (e.g., Gjerstad *et al.*

1934), was more concerned with chronology and typology than with individual contexts of the finds. That disinterest in extramural activities is particularly unfortunate since 84 percent of recorded picrolites were recovered from such locations in the early excavations of Khirokitia. Assuming that the picrolites have not eroded from buildings on the steeply sloped site (only seven come from intramural deposits), they may be part of general habitation refuse. In his more recent investigations at Khirokitia, Le Brun (1989: 79–80) has postulated that a similar distribution of figurines can be explained in terms of loss of significance and their disposal once they had fulfilled their purpose. In other words, rather than regard such wasteful discard practices as profligate rejection of imported valuables, it may be that picrolites were used for restricted purposes, to be dispensed with, after life crises rites for example. They were not normally kept as funerary offerings.

In the Late Neolithic, picrolites were less common and their shapes much less elaborate (fig. 1b).

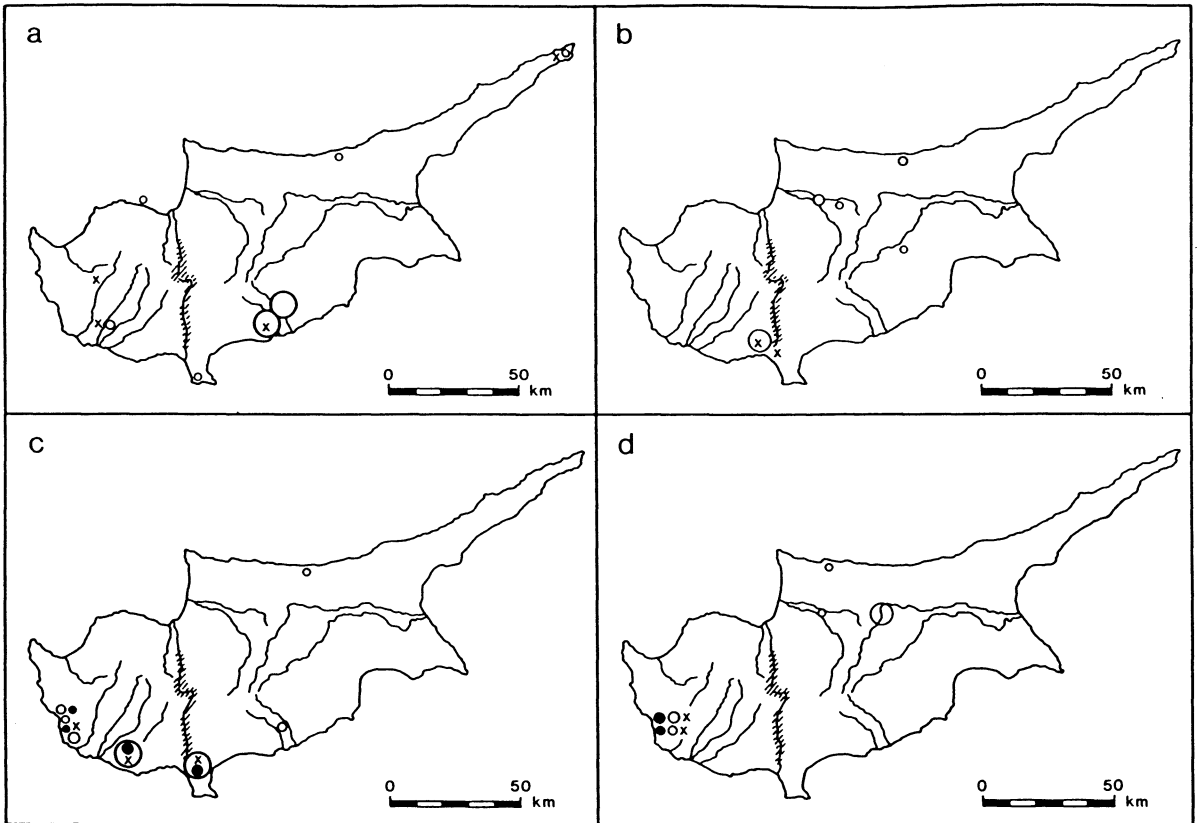


Fig. 3. Distribution of picrolite in the ninth to sixth millennium B.C. (a); fifth millennium B.C. (b); fourth millennium B.C. (c); and third millennium B.C. (d). See Figure 2 for symbols.

Pebbles were only slightly altered to form beads and elongated pendants. While such typological impoverishment cannot explain the ever-diminishing chronological gap in the occupation record of Neolithic Cyprus (Held 1989), the dates associated with some examples are noteworthy. If the Dhali beads (Appendix, Table 2) belong, at the latest, to the mid-fifth millennium B.C. (Lehavy 1989: 211), it would indicate that communities engaged in alternative economic strategies between the Aceramic and Late Neolithic periods maintained access to supplies. Such a scenario might help explain the firmer evidence from Ayios Epiktitos-Vrysi, where picrolite occurs in the earliest levels (fig. 1b.9). Since the relevant pendants or raw material had to come from distant sources across the Kyrenia Mountains (fig. 3b), the first attested occupants of Ayios Epiktitos were either natives or colonists who quickly established relations with those natives who had knowledge of the sources. In either case, the evidence strengthens the case for continuity of

occupation in the Neolithic of Cyprus, rather than abandonment as advocated by several scholars (e.g., Stanley Price 1977: 37; Cherry 1981: 60–61; Karageorghis 1982: 27).

The absence of picrolite jewelry from the Sotira cemetery suggests that such pieces were used only as personal ornaments for the living—not funerary offerings—during the Late Neolithic. Of the picrolites recovered from the settlement area, 66 percent comes from houses, a notable contrast with Aceramic era discard practices. Most were found in below-floor deposits, which may comprise general habitation fills rather than special foundations.⁶

The Zenith of Picrolite Use in the Chalcolithic Period

The dramatic increase in number of picrolites during the succeeding Chalcolithic period is matched by a substantial extension in morphology and the onset of their use in burials (figs. 2; 3c, d; Appendix,

Tables 3–5). This leap, from 50 in the fifth millennium B.C. to 445 in the fourth to the third, is an underestimate: it does not take into account the many unprovenanced objects attributable to the Chalcolithic period on stylistic grounds. New carving techniques were developed for the production of beads, inlays, whorls, vessels, a much enlarged repertoire of pendants, and—for the first time—figurines. The revolution, evident already in Early Chalcolithic Kalavassos-Ayios and Kissonerga-Mylouthkia, was one of a number of changes in behavioral patterns. More rock types were exploited and, as is evident at Kalavassos-Ayios in the south of the island, it was not solely due to population increase in the west where a greater range of rocks is available. Intensified demand in a whole range of rock types thus led to the increased exploitation of picrolite.

Intensification by itself does little to explain the unprecedented growth of the picrolite network. Enhanced exploitation and distribution served socially determined needs, and they are most obviously visible in the major product, the cruciform pendant figurine (fig. 1c.13–19). Morris (1985) argues persuasively that they are birth charms, while others (e.g., Karageorghis 1977) believe they represent fertility deities. The more important point for this discussion is that the highly stylized shape was widely accepted, and is the first unequivocal symbol in Cyprus. Production, distribution, and consumption of picrolite during the Chalcolithic therefore were integral to the formation and maintenance of social customs involving birth, and hence probably also marriage.

The spectacular evidence of the Souskiou cemeteries has led to the unwarranted general assumption that picrolite pendants and figurines were made solely for funerary purposes (e.g., Karageorghis 1977: 28; Vagnetti 1980: 53–54). Rather, they were used for both the living and the dead: the holes of many perforated pendants are often nearly worn through (fig. 1c.22, 32) or have already broken and the pendants have been repierced (fig. 1c.26, 32). Furthermore, the absence of picrolites in burials at Karavas and Erimi (Dikaïos 1936: 11, 74) indicates that only some of the population was entitled to be buried with such pieces. Thus picrolite was a prestige item.

Evidence from Lemba and Kissonerga in the west of the island repeats and amplifies the pattern recovered at Erimi and Karavas. Of 56 graves at Lemba only five or six possess picrolites, and only

one of those contained a figurine (Peltenburg *et al.* 1985). At Kissonerga, four of 67 graves have picrolites and again only one has figurines (unpublished data). In total, only 18 percent of all picrolites recovered from Lemba occur in graves and only 6 percent at the far richer site of Kissonerga. According to the evidence from Karavas, Erimi, Lemba, and Kissonerga, therefore, the site of Souskiou is anomalous in yielding so much picrolite from mortuary contexts. A number of more obvious possible reasons may be proposed for that anomaly, none of them satisfactory:

- *Souskiou is anomalous because the material comes from cemeteries, not intramural graves as at the other sites.*

Lemba Area I also has a cemetery and its burials had no durable grave-goods (Niklasson 1985: 43–53, 323, fig. 6.4). Also, many graves that now appear to be intrasettlement were located in areas where there were no buildings. If a cemetery is defined as a burial area set aside from other pursuits for some, rather than all time, the distinction between it and a settlement is not always easy.

- *Since most Souskiou picrolites were found in clandestine operations, they could have been collected from the settlement.*

In the first excavation at the site, Iliffe and Mitford (1952) investigated three tombs that produced picrolite and none was reported from the settlement. Subsequent rescue work was undertaken in response to tomb looting, evidence for which was clearly visible in the spoil dumps beside emptied shaft graves (Maier 1974; Christou 1989). Those rescue operations also yielded picrolites in abundance and none from the settlement.

- *Picrolites from general habitation contexts are derived from burials since graves in densely occupied settlements are frequently disturbed.*

This argument does not confront their absence from undisturbed graves. A few graves were undoubtedly reused for other purposes, but not many, and the argument requires more human bone from general habitation deposits than actually occurs.

One may conclude that some ancient special circumstance attends the deliberate concentration of picrolite at Souskiou and that it is not a result of retrieval bias. A possible reason for the anomaly may be the role of Souskiou along a boundary. The site is situated at the east end of the populous Ktima Lowlands. Further east, the terrain becomes difficult, and hills extend right to the sea, rendering coastline routes to the Kouris picrolite source

virtually impassable. The site lies above the Dhiarizzos, a perennial river that provides access to the mountains to the north, but the mountains are devoid of Chalcolithic sites. Souskiou, therefore, occupies a strategic position in terms of communication arteries and site distributions. Elaborating on Polanyi's concept of "ports of trade" and their location at interfaces, Bradley (1985) draws attention to the location of metalwork hoards on the edges of culture zones in Europe, especially in the vicinity of rivers. Such specialized sites may have served as "neutral places where balanced transactions took place" (Bradley 1985: 699). Souskiou's most notable feature is its rich cemeteries with their picrolites, mother-of-pearl (Vagnetti 1980: 44, nos. 93–95; pl. 17), fantastic zoomorphs (Maier and Karageorghis 1984: 26, fig. 3), multiple burials, and shaft graves cut deeply into limestone that, apart from typological distinctness, required considerably more labor than the construction of graves at other Chalcolithic sites. Although little is known of its settlement, the mortuary richness of Souskiou may be associated with a strategic role in contacts between regional groups.

No data are available on age/sex associations for the Souskiou picrolites, although at Lemba and Kissonerga a surprising correlation exists between picrolites and children in the mortuary population (Appendix, Table 6). At Kissonerga the four graves with picrolites all belonged to children; not one of the dozens of adult burials yielded that material. In the one Lemba burial where it may have accompanied an adult (Grave 23), there is considerable doubt concerning the association and it was not included as grave goods in the final report. None of the remaining 13 adult burials contained picrolites.

It seems, therefore, that a proportion only of buried children had picrolites; and since so many picrolites have been recovered from general settlement debris, it might be surmised that after a certain age, people no longer were buried with picrolite ornaments. Some living adult females probably did wear cruciform symbols, and one figurine, fig. 1c.18, depicts the manner in which they were suspended. The birth pendants were not exclusively reserved for adult females, however, since one was found at the neck of a child in Kissonerga Grave 563.

Lunt (in Peltenburg *et al.* 1985: 246) remarks on the preponderance of very young children in the burial population at Lemba; the same is true at

Kissonerga (Lunt: personal communication). It may indicate an unusually high infant mortality rate, which may explain the proliferation of birth figures during the Chalcolithic. Another possibility is that some adults were buried elsewhere. The exceptional character of Souskiou, some 25 km east, has been noted (above); but unfortunately no data are currently available on the age structure of its burial population. If Souskiou adult burials possess picrolites, the site is further distinguished from other settlements and perhaps functioned as a regional cemetery.

INITIAL ASSESSMENT OF PROCUREMENT STRATEGIES

Kouris and Karyotis river sources are postulated for most if not all picrolite ornaments (above). River pebbles have been found at three Aceramic sites, one Late Neolithic, and nine Chalcolithic (Appendix, Tables 1–5). Some have been artificially smoothed and polished. Such pebbles could be finished items for an unknown use, or blanks; hence the distribution of the unworked raw material may be more limited than the numbers suggest. The largest concentration of unworked pebbles is a recently discovered cache from painted Building S. 122 at Khirokitia. According to Le Brun (personal communication, 23 Jan. 1991), one may be partly worked, so here is further evidence for transport of raw material from secondary deposits in rivers and for small-scale ornament production at settlements. Painted buildings are rare in Aceramic Cyprus (e.g., Todd 1987: fig. 39), so the association here may prove special. Wasters are recorded at three Aceramic sites, one Late Neolithic and four or five Chalcolithic (Appendix, Tables 1–5). As with pebble cores, that cannot be interpreted without qualification as evidence for local production from imported raw material. While obviously retooled objects are excluded from consideration, it is not always easy to distinguish between a partly recycled old object and discard from a nearly completed new product. Nonetheless, enough evidence is certain to permit the inference that in all periods raw material was taken from the Kouris and Karyotis for on-site production. The clearest evidence occurs at sites where pebbles and wasters occur together (e.g., at Kholetra). A sizable pebble from Mari indicates that relatively large objects were made locally from transported raw picrolite (Appendix, Table 1).

A pattern of dispersed production therefore characterizes the picrolite network. There is no evidence for the dispatch of finished products from centralized manufacturing points. Had the latter occurred, one would expect masterpieces at Erimi, yet work there is of indifferent quality. In the Chalcolithic, quality of workmanship seems to vary in inverse relationship to abundance of readily available material, with the most sophisticated cruciform figure from distant Yalia (fig. 1c.18). That may be due to the ease with which the soft material (3.5 on the Mohs scale) can be worked and the greater care given to production in distant locales where it was harder to obtain picrolite. Thus, there is little evidence for a "picrolite industry" (Knapp 1990: 157) or specialists (Bolger 1988: 118). Finlayson easily replicated a cruciform from a pebble within one hour as part of chert wear analysis experiments (personal communication).

Absence of specialist production is also indicated by relative complexity in the expanded pendant repertoire and the stylistic variability of anthropomorphs within the cruciform parameter. Vagnetti (1980: 37, n. 27; cf. 39, n. 37) can attribute only three to the same workshop on the basis of standardization. Others likely to be from the same hand come from Kissonerga (Peltenburg 1988: 233, fig. 2) and, allegedly, from Souskiou (Karageorghis, Peltenburg, and Flourenzos 1990: 42, no. 32). Simplification and lack of standardization not only corroborate on-site production but also point to highly localized, part-time craftsmen rather than distribution and manufacture by itinerant carvers.

If we apply Renfrew's model (Renfrew, Dixon, and Cann 1968) for Near Eastern obsidian procurement to the data here, picrolite may have been acquired directly rather than through an exchange network. The longest distance between picrolite source and artifact, ca. 100 km, is well within the 300 km radius he postulates as the supply zone for obsidian exchange.⁷ However, other mechanisms may account for the very high proportions of obsidian in lithic assemblages within that zone. In Cyprus, direct access often means passing through the territories of many villages, and the considerable travel difficulties in pre-pack animal Cyprus have been noted above. Strong or ulterior motives were required for a picrolite fetch-and-carry system in which villages had direct access to the Kouris or Karyotis river resource. Such motives may have existed, and the tunny fish explanation for the

distribution of obsidian in the Aegean provides two possible insights into how that system may have operated in Cyprus.⁸

The first aspect of the model is that raw material transport is an adjunct of a subsistence economy in which there is direct acquisition of foodstuffs. As was argued above, there is only tenuous evidence for the exchange of edibles in prehistoric Cyprus. Seasonal transhumance, which often figures in discussions of the economies of the Near East and of Mediterranean islands, also provides the necessary mobility for direct access procurement; but there is no tradition or evidence for it in Cyprus (Stanley Price 1979a: 71–73). The popular nondomestic fallow deer had a circumscribed habitat in woodlands and valleys, so it did not require long-distance hunters into the Central Troodos where the picrolite-bearing serpentines were located. There is little evidence, therefore, to support the notion that a fetch-and-carry supply of picrolite was embedded in a land-based subsistence strategy.

The second element is sea transport by fishermen who may have been more important to the Cypriot economy than is suggested by the scantiness of fishbones on sites. Inshore fishermen would have little reason to travel far, but specialist deep sea fishermen may have moved further along the coasts, bringing along esoteric valuables like picrolites. The distribution of the latter would be most dense at coastal sites regardless of distance from source, as Ammerman (1979) suggests in the case of obsidian in the central Mediterranean. All things being equal, therefore, this could be monitored by measuring rates of consumption at coastal and inland sites. All things, however, are far from equal and a regional analysis by means of the graphical approach used by Renfrew and his associates is fraught with difficulties.

Regression analysis of obsidian distributions, among the most advanced in archaeology, has led to conflicting interpretations of exponential and other fall-off patterns. In a review of such studies, Torrence (1986: 23) concludes, "Archaeology still lacks an effective methodology for measuring consumption on a regional level." The meaning of graphs that show relative frequencies of picrolite in assemblages of personal ornaments is thus open to several reconstructions of acquisition. Based simply on numbers, picrolites at (in order of distance from source) Erimi, Sotira, and Souskiou comprise more than 80 percent of the total, at Ayios 40 percent,

at the Lemba cluster of sites 30–60 percent, at Khirokitia 50 percent and Ayios Epiktitos 10 percent.⁹ Not surprisingly, frequency of occurrence declines with increasing distance. Sample weight might provide another picture. More instructive than either may be color since unblemished monotone blue-green seems to have been preferred and there are many inferior, mottled, and olive-brown picrolites. But in virtually all cases, the sample base of excavated sites is too slender to provide meaningful results; it includes sites of different sizes, cultures, and volumes of recovered soil, serving contrasting functions and excavated with disparate retrieval procedures.

Another limiting factor is that models for obsidian exchange are primarily intended for utilitarian goods whose appearance at sites equates with unilinear distance from source. There is no consideration of the impact of the circulation of consumer items on distance decay curves. Depending on their social role, figurines and pendants may well have been personal effects that traveled contraflow to material from source. The identity of cruciforms from Kissonerga-Mosphilia and Souskiou (Peltenburg 1988: 233, fig. 2; Karageorghis, Peltenburg, and Flourenzos 1990: 42, no. 32) suggests that, in addition to the raw material, there was also movement of finished items.

Although the archaeological record provides little evidence to allow differentiation between direct access and exchange, it is suggested that during the Chalcolithic a localized exchange system in picrolite pebble cores did exist. Reasons for favoring that procurement system include the pre-existing need for communities to be engaged in information networks, the likely operation of a least-effort principle, the general lack of evidence for long-distance mobility, and topographic constraints on long-distance travel.

SUMMARY AND CONCLUSIONS

Production of picrolite ornaments remained unspecialized in pre-Bronze Age Cyprus. The largest concentration of raw material, a cache of 25 pebbles at Khirokitia, fits that pattern, since it constitutes no more than the contents of a single bag, readily carried and worked by one person. Production was carried out inside settlements, and required limited labor that could be contained in an agricultural regime. Production reached its zenith during the

Middle Chalcolithic due to the expansion of a symbolic system, rather than the greater prevalence of metal for carving (see Vagnetti 1980: 52 for the dismissal of metal). It may have been severely curtailed during the Late Chalcolithic when other blue items such as faience beads appear.

It is possible to discuss consumption only when there is useful contextual information, in the Chalcolithic period. Exogamy was important then, and it has been argued (above) that the exchange system may have been linked to marriage networks. The cruciform images however were not exclusively used in marriage contracts, as suggested by Talalay (1987) for the broken terracotta figurines in Greece, since virtually all those in graves accompany children. Few children were buried with the figures, and this may be accounted for by ascribed status. The many cruciform birth symbols from general habitation deposits were probably worn by adult females only at certain times, and discarded—after child-bearing age, for example. Contextual evidence therefore suggests that consumption of this prized import was geared to rank and status in small-scale society.

Hastorf (1990) posits two types of exchange systems, local and exogenous. The former functions “to maintain intergroup relations, to perpetuate the system, and to gain access to needed goods” (Hastorf 1990: 153). Primitive valuables are a common feature of reciprocal systems, and the Cypriot picrolite network conforms to that exchange type. Even at the height of its distribution, in Middle Chalcolithic times, there is no evidence that intensification of demand triggered escalation in the movement of a variety of potential exchange goods, or systemic change. There are no signs of special structures or concentrations of exotic preciocities to match contemporary Palestine (Alon and Levy 1989), but few Cypriot Chalcolithic sites have been excavated. The picrolite exchange system therefore may be viewed as a regulatory mechanism that helped to maintain intercommunity contacts, ensure the arrival of essentials (Rappaport 1967), and apparently—according to mortuary associations—sustain divisions within small-scale societies.

As the only Chalcolithic site near the Kouris source, Erimi may have exercised a monopoly in the supply of the valuables to nearest neighbors. The socioeconomic impact of that control may be one factor in its growth into the largest settlement in Chalcolithic Cyprus (see Peltenburg, this issue,

pp. 17–35). At no other time did a Kouris river valley site achieve such prominence (Bolger 1988). However, the quality of recovered picrolites is mediocre and Erimi is unlikely to have developed as a specialist distribution point for finished articles. What then did it receive in return for the dissemination of raw picrolite? Dikaio's sounding was too small to provide the broader perspectives to see how trade was adjusted to local structures, but there is no clear density of imported goods. Increased population is the most obvious feature of the period, and that may be correlated with exchange for more regular supplies of foodstuffs. During the Middle Chalcolithic period, bulk, intramural storage of food is attested for the first time. New containers, pithoi, were developed then (e.g., Peltenburg *et al.* 1985: 35, fig. 55.4). While storage is important to buffer local subsistence fluctuations, it also provides surplus for exchange. Cyprus is subject to severe and recurrent droughts (Christodoulou 1959: 28), and Erimi may thus have benefited from imported food during times of diminished harvests. Increased population, pithoi, and intensified exchange may have been interacting variables that provided the necessary stability for growth at Erimi.

The exceptional quality and number of picrolites at Souskiou—a settlement that remained small even if some of it has been eroded by the Vathyrkakas River—may be due to source capture (note pebbles at Prastio further up the Dhiarrizos river, Appendix, Table 5), or to its role as a special redistribution center along a frontier, or as a ceremonial center. This Middle Chalcolithic site pro-

vides the first evidence in Cyprus for “wealthier” burials, and those are associated with high concentrations of picrolite.

As discussed (above), one impact of the picrolite network was the growth of settlement-size hierarchy by the Middle Chalcolithic. That process of increasing social differentiation apparently continued into the Late Chalcolithic. The cessation of picrolite production and distribution thereafter (Appendix, Table 5, bottom) should be viewed in the broader historical context of its socioeconomic role and developments in the eastern Mediterranean in the mid-third millennium B.C. Its demise cannot be regarded as simply the result of the disappearance of a number of participating sites, for their inhabitants could have moved to new locations within the island. The cessation concerns more the breakdown of the whole infrastructure of production, exchange, and consumption—of the disappearance, in other words, of important means of community integration. Since it played a causative role in the creation of site hierarchies, a major stimulus toward social complexity was removed. The succeeding exchange pattern, based on copper extracted from northern ore bodies, involved different sources, routes, and extractive processes, and hence the growth of social complexity in the Bronze Age was not an elaboration of preexisting exchange networks. The disappearance of the age-old picrolite network reflects and probably was instrumental in the transformation of Cypriot society that is but one aspect of the profound crises in the eastern Mediterranean in the mid-third millennium B.C.

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NOTES

¹More recent finds of obsidian have not altered the general situation presented in Peltenburg (1979: 24–26).

²Publication of a much expanded analytical database will follow. Low scandium currently provides the best source “fingerprinting,” but it is clearly desirable to have more than a single element to source those picrolites.

³There are, in addition to the problems of identification, problems of nomenclature. For the American preference for the term “antigorite” see, for example, Swiny (1986: 29, n. 1), and Hancock and Fox (in press). The related serpentinite also occurs occasionally on prehistoric sites.

⁴For doubts on authenticity, see Vagnetti (1974: 29, n. 1). Many picrolites have been attributed to Souskiou, but here only those accepted by Vagnetti (1980) are included.

⁵This situation may be alleviated by the final publication of Kalavassos-Tenta and Le Brun's (1984) continuing excavations at Khirokitia.

⁶Our understanding of these intriguing finds could be extended significantly by intrasite analysis of finds and especially by closer attention to site formation processes.

⁷A supply zone is an area in which users have direct access to sources (Renfrew, Dixon, and Cann 1968: 329).

⁸The central plank of the model is that fishermen exploited Melian obsidian quarries during their tunny fish expeditions (Bintliff 1977: 117–25, 538–43). Minimal social transfer of information is inherent in this model of direct acquisition.

⁹The figures for Khirokitia (and new ones for Cape Andreas) will require major adjustments when the many newly discovered picrolites are studied through the kindness of A. Le Brun.

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APPENDIX

The following tables provide a summary catalogue of provenanced picrolites in ninth to third millennium B.C. Cyprus. Abbreviations: amulet (A); bead (B); chisel (C); figurine (F); miscellaneous (M); nugget (N); pendant (P); pebble (Pb); "spindle whorl" (SW); waster (W); Cyprus Museum (CM); Cyprus Survey Collection (CS); Paphos Museum (PM).

TABLE 1. Picrolite Occurrences in Ninth to Sixth Millennium B.C. Cyprus

<i>Site</i>	<i>n</i>	<i>Type</i>	<i>Reference</i>	<i>Comments</i>
Akrotiri-Aetokremmos	2	B	Karageorghis 1988: 41	"Serpentine," not stated if from surface or rock shelter
Cap Andreas-Kastros	?	B	Le Brun 1981: figs. 47-48	One "steatite" and one "greenstone" mentioned. Objects on display in CM are picrolite
Kalavassos-Tenta	86	Pb, M	Todd 1977: 23; 1979: 67; A. South personal communication 8 Mar. 1990	These and other finds described as "antigorite" (Todd 1987: 20). Minimal nos. pending final report
Khirokitia	85+	B, P, W, V, M	Dikaïos 1953; Le Brun 1984, II: 132-33	Partly drilled pendants: Dikaïos 1953: 53
Kholetra-Ortos	10+	P, Pb, W	Fox 1988: 41; Hancock and Fox in press; PM	Pebbles displaying retouch; partly drilled disc
Kritou Marottou-Ais Yiorkis	3	P, W	Fox 1987: 21	Includes fragment "from ornament production"
Mari-Mesovouni	10	Pb	A. South, personal communication 8 Mar. 1990	Includes large (L. 10 cm) pebble
Petra tou Limniti	1	B	Gjerstad <i>et al.</i> 1934: 1-2, pl. 5.3	
Rizokarpaso-Apostolos Andreas	1	N	Stanley Price 1979a: 122	"Lump"
Troulli I	2	B, P	Peltenburg 1979: 29	Both residual Aceramic types

TABLE 2. Picrolite Occurrences in Fifth Millennium B.C. Cyprus

<i>Site</i>	<i>n</i>	<i>Type</i>	<i>Reference</i>	<i>Comments</i>
Ayios Epiktitos-Vrysi	5	B, P	Peltenburg 1982a: 315-16, fig. 62	
Dhali-Agridhi	2	B	Lehavy 1989: 211	"Green serpentine"; could belong to previous millennium
Dhenia-Kafkalla	1	C	Nicolaou 1967	Period attribution uncertain; several components represented
Kandou-Kouphouvouno	4	Pb	Stanley Price 1979a: 135	"Lumps"
Philia-Drakos A	10+	B, P, M	Watkins 1969: Ill. 31	On display in CM
Sotira-Teppes	29	B, P, M, W	Dikaïos 1961: 200-201	None from first phase. Three partly pierced pendants; three blanks

TABLE 3. Picrolite Occurrences in Fourth Millennium B.C. Cyprus

<i>Site</i>	<i>n</i>	<i>Type</i>	<i>Reference</i>	<i>Comments</i>
Ayios Epiktitos-Mezarlik	1	P	Peltenburg 1985: 102, fig. 5.8	Rare type: cf. Kalavassos B and Lemba. 1A from here? (Stanley Price 1979a: 155)
Erimi-Pamboules	152	B, C, F, P, Pb/W, SW	Dikaïos 1936; Bolger 1988	Bolger 1988: 80 (adze, chisel), 92 (mortar), 113 (unfinished figurine), 118 (wasters)
Kalavassos-Ayious	7	B, P	South 1985: 73	“Antigorite”
Kissonerga-Mosphilia 2–3	2	P	PM	
Kissonerga-Mylouthkia	9	F, P, M	Peltenburg 1980: 58, top right	Others in PM
Lemba-Lakkous 1–2	17	B, F, P, M	Peltenburg <i>et al.</i> 1985	M could include wasters
Souskiou-Vathyrkakas	88	B, F, P, W	Vagnetti 1980; Christou 1989	One F unfinished (Vagnetti 1980: 51, n. 90)

TABLE 4. Picrolite Occurrences in Third Millennium B.C. Cyprus

<i>Site</i>	<i>n</i>	<i>Type</i>	<i>Reference</i>	<i>Comments</i>
Kissonerga-Mosphilia 4–5	30	B, F, P, M	PM	M includes one polisher
Lemba-Lakkous 3	18	F, P, M	Peltenburg <i>et al.</i> 1985	3M could include wasters
Nicosia-Ayia Paraskevi	48	B, P	Stewart 1962: 261; Hennessy, Erikson, and Kehrberg 1988: 14–17	Stewart refers to “steatite” and does not define “pseudophite” beyond a greenstone
Philia-Vasiliko	2	P	Dikaïos 1962: 174	
Vasilia	2	M	Hennessy, Erikson, and Kehrberg 1988: 26	1 pounder, 1 lid from <i>dromos</i> T.1

TABLE 5. Picrolite Occurrences in Fourth and Third Millennium B.C. Cyprus*

<i>Site</i>	<i>n</i>	<i>Type</i>	<i>Reference</i>	<i>Comments</i>
Akrotiri #19	1	M	Held 1989: 244	"Unworked antigorite"
Akrotiri-Shiloshtasha	?	?	Held 1989: 345	"Antigorite"
Androlikou-Ayios Mamas	10	F, P	Stanley Price 1979a: 140 and CS	
Chlorakas-Vrysoudhia	1	M	PM	
Erimi-Pamboula	7	F, Pb	Heywood <i>et al.</i> 1981: 34	"Serpentine (steatite)." Includes Late Chalcolithic material not found in Dikaio's sounding
Kalavassos B	1	P	Dikaio 1962: 138, fig. 65.26	
Kalavassos-Pamboules	2+	Pb	A. South personal communication 8 Mar. 1990	Others, unpublished, from Dikaio's work
Kathikas	1	F	Vagnetti 1975: 2	
Kissonerga-Mosphilia	39	B, F, P, Pb, M	PM	M includes a miniature axe, and adze, and wasters
Kouklia-Chiftlik	2	P	Maier and Karageorghis 1984: 105	
Kouklia-Germanus	1	Pb	Maier 1981: 105	"Unworked steatite"
Kouklia-Liskovouno	2	F, Pb	Fox 1987: 24	Multicomponent site; Pb 5th millennium B.C.?
Kythrea-Ayios Dhimitrianos	6+	B, C, F, P	Gjerstad <i>et al.</i> 1934: pl. 13.1-2; CS 1525	1P described as "blue stone." For another from Kythrea (?) see Vagnetti 1980: 65
Lapithos-Alonia ton Plakon W	1	SW	Gjerstad <i>et al.</i> 1934: pl. 9.42	
Loutros-Athkia	1	F	Nicolaou 1967	
Miliou-Rhodaios	4	A, B, F	Stanley Price 1979a: 145; Peltenburg 1981: pl. 4B	1A could be unfinished axe pendant. Site also known as Miliou-Ayii <i>Anargyrii</i>
Neokhorio-Verikon	1+	Pb?	Stanley Price 1979a: 147	"Lumps of steatite"
Phasoula	1	F	Stanley Price 1979a: 137	
Plataniskia-Kasouliali	1	F	Vagnetti 1980: 66	
Plataniskia-Petrero	1	P	Vagnetti 1980: 46 no. 57	
Pomos-Kaminia	1	P	Dikaio 1934	
Prastio-Ayios Savvas tis Kononas	4+	F, Pb	Hancock and Fox: in press; PM.2928 = Karageorghis 1987: fig. 71	
Salamiou-Anephani	2	F	Vagnetti 1974: 29, n. 1	PM.1258, ascribed to Salamiou in Vagnetti 1975, is from Kissonerga-Mosphilia according to the PM register

TABLE 5. *Continued*

Sotira-Kaminoudhia	9	F, P	Swiny 1985: 16	Area A only; “serpentine”
Souskiou-Ayia Irini	1	F	PM.1005	
Souskiou-Laona	4+			
Souskiou-Teratsouthia	1	F	PM.1007	
Trimithousa-Kilistra	1	F	CM 1944/IV-22/13	
Vasilia-Alonia	2	Pb	Stanley Price: 1979a: 116	
Yalia-Appourkia	1	F	Dikaïos 1934: pl. 6.1	

*Not attributable to a specific millennium, and additional to picrolites in Tables 3 and 4.
Note: Chalcolithic picrolites were reused in later times, for example figurines at Ayia Irini, Klavdia, and Maroni (Vagnetti 1980: 65), and pendants, possibly from Curium (Goring 1988: 45, nos. 2–4: possibly Early Chalcolithic objects, derived from Neolithic and Chalcolithic occupation known to exist at Episkopi), and Kition (Karageorghis and Demas 1985: 177, 312.860). The material was also occasionally exploited in later times. Bronze Age: Episkopi-Phaneromeni (Swiny 1986: 28–31), Episkopi-Bamboula (Daniel 1938: 269), Kalavassos-Ayios Dhimitrios (A. South personal communication, 8 March 1990), Enkomi (Dikaïos 1969: 273.1597), unprovenanced (Lubsen-Admiraal and Crouwel 1989: 149, fig. 35a), and, perhaps, Kedares-Soumajero and Salamïou-Kokkinos (Hancock and Fox, in press). Iron Age: Amathus T. 556 (Karageorghis 1989: 811, fig. 85). Byzantine and mediaeval: Christian crosses (e.g., PM 1013, 1499, 1744, this type not to be confused with Morris 1985: 125, pl. 173, or the analogous example in Amsterdam: Lubsen-Admiraal and Crouwel 1989: 148–49, no. 34).

TABLE 6. Age Structure of Mortuary Population Associated with Picrolites at Kissonerga–Mosphilia and Lemba–Lakkous*

Site	Grave	Burial Age	Sex	Picrolite
Kissonerga	501	child ^a	?	Pendant (cf. fig. 1.21)
	548	child ^a	?	Pendant (cf. fig. 1.22)
	560	child ^a	?	Pendant (cf. fig. 1.25)
	563	children	?	Cruciform figurine and pendants (cf. fig. 1.13, 25, 30)
Lemba	20 ^b	?	?	Cruciform figurine (fig. 1.13)
	21	6–7	?	Pendant (cf. Peltenburg <i>et al.</i> 1985: fig. 83.5)
	23 ^c	ca. 30	?	Pendant
	46	4–5	?	Pendant (cf. fig. 1.22)
	47	1–2	?	Pendant (fig. 1.26)
	55	infant/child	?	Sliver

*Kissonerga data unpublished; Lemba from Peltenburg *et al.* 1985.
^aDetails pending.
^bNo body recovered: pit size indicates child or juvenile.
^cPicrolite found below burial pit; dubious association.