CONTATTI CULTURALI E SCAMBI COMMERCIALI DELLA SARDEGNA NURAGICA: LA ROTTA MERIDIONALE (SARDEGNA, SICILIA, CRETA, CIPRO)

Atti del IV festival della Civiltà Nuragica (Orroli, Cagliari)

CULTURAL CONTACTS AND TRADE IN NURAGIC SARDINIA: THE SOUTHERN ROUTE (SARDINIA, SICILY, CRETE AND CYPRUS)

Proceedings of the Fourth Festival of the Nuragic Civilization (Orroli, Cagliari)

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Prima edizione settembre 2021
ISBN 978 88 68XXX XX X

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Sardinians in Cyprus, Cypriots in Sardinia? The state of the question

Mark Pearce

As Fernand Braudel (1972) taught us long ago, the Mediterranean is a connecting sea and Massimo Casagrande, in his presentation of the third volume of the report on the excavations at the Nuraghe Arrubiu (Orroli; Perra & Lo Schiavo (eds) 2020), made an important point, that the inhabitants of later prehistoric Cyprus and Sardinia were 'islanders but not isolated' (it works better in Italian, of course, *isolani ma non isolati*). The papers in these proceedings offer a significant update to our understanding of the important question as to the nature of the contacts between the Mediterranean islands of Cyprus and Sardinia in the later Bronze Age and Early Iron Age, their scale and whether or not such contacts were direct or were in fact mediated by third parties. It is my opinion that the evidence that is presented in this volume allows us to go some way to answering these questions, and also to address the unresolved questions raised by Fulvia Lo Schiavo in her introductory remarks at to the conference.

Put very simply, the discovery that the oxhide ingots in Sardinia are all, as far as we know from the available isotope data, made of Cypriot copper (for an up-to-date review, see Lo Schiavo 2018 and Kassianidou, this volume) and the evidence for Cypriot objects in Sardinia and the West (see Russell and Knapp 2017 for a useful review of the evidence, but note my comments further on in this paper; cf. Sabatini and Lo Schiavo 2020) posed the problem as to the nature of the relations between the two islands and the reasons why copper was widely imported to Recent and Final Bronze Age Sardinia from Cyprus, given that Sardinia has its own copper ores.

The islands of Cyprus and Sardinia are, as Peter Fischer reminded us in his paper (pp. 26-30), some 2200 km apart and so direct contacts between the islands may seem unlikely. This in fact is the very position taken by Russell and Knapp (2017, p. 14) in their paper on

Cypriots in the central Mediterranean, who argue that '[p]rima facie, the quantity of material seems too limited to represent "intimate" connections between Bronze Age Cyprus and Sardinia'. The premise of Russell and Knapp's (2017) paper is declaredly and programmatically 'minimalist' and it is necessary to unpack their viewpoint. It is important in fact to stress that minimalism is an *a priori* judgement, which is profoundly sceptical about the archaeological data. It is, however, my contention that such an approach represents a profound misunderstanding of the nature of the archaeological record, which is the product of a wide range of human behaviours in the past, post-depositional processes and the fortuitous nature of many if not most archaeological finds. Archaeologists tend to implicitly assume that the sum of all these factors acting together will mean that the evidence we have is generally representative of prehistoric reality, not least because it is operationally necessary to do so in order to interpret the data, but this assumption is not in fact necessarily true. Certainly, there is no doubt that the absolute numbers of archaeological finds are a very small fraction of the absolute numbers of artefacts that circulated in the past. The archaeological record constitutes just a small fraction of a much more numerous and complex prehistoric reality. This is well illustrated by George Papasavvas' paper (pp. 141-142). He shows that the 10 tons of copper and 1 ton of tin in the cargo of the Uluburun shipwreck would have been enough to produce 25,000 bronze swords (assuming that each sword weighed an average of 450 g)! This is just the cargo of a single Bronze Age boat, and yet we do not have nearly that many contemporary artefacts in our museums and storerooms. This example serves to indicate that we cannot use the absolute numbers of finds as an indication of the importance or significance of the behaviours that they document. When Mark Papworth pulverised a 'unique' potsherd and poured scorn on James Griffin on the grounds that a single fragment had no statistical significance, he was not only guilty of the wanton destruction of cultural heritage, he was also making dangerous assumptions about the representativeness of the archaeological record (for the shocking episode, recounted by Lewis Binford with a certain approval, see Binford 1972, pp. 131-132). Not least because of the incomplete nature of archaeological discovery and knowledge, archaeologists must always bear in mind

the maxim that absence of evidence does ***not*** constitute evidence of absence. If we are to interpret the partial and scanty evidence of the archaeological record, we must see it in context. I shall return to this issue below.

The papers presented at the conference and published in this volume provide an up-to-date overview of the evidence for Sardinian material in Cyprus, particularly at the sites of Pyla-Kokkinokremos (Kanta, this volume) and Hala Sultan Tekke (Fischer, this volume), two important ports on the south coast of the island that were destroyed in the mid-12th century BC. As the two authors make clear, at both sites there is Nuragic material, but what is more important is that this material comes from archaeological contexts that may be interpreted and can shed light on its significance. Russell and Knapp (2017, p. 3) have argued that we should 'decouple foreign objects from foreign agents', avoiding the facile assumption that the exotic goods necessarily evidence the presence of visitors from the other island. The issue therefore is not whether Nuragic material is found in later Bronze Age and Early Iron Age contexts in Cyprus, or indeed whether Cypriot artefacts are found in Nuragic contexts in Sardinia (Russell and Knapp do not indeed deny that they are), the issue is the meaning of such finds. Let us therefore examine the question as to whether the archaeological evidence from Pyla-Kokkinokremos and Hala Sultan Tekke indicates the actual presence of Sardinians in Cyprus.

The question is important, as Russell and Knapp (2017, p.22) most reasonably enquire: '[w]hy … would Cypriot seafarers or merchants have made the long and potentially difficult voyage to Antigori if the Sardinian goods they sought were available at Kommos, Cannatello or elsewhere on another route?' and '… would Sardinian mariners have travelled all the way to Cyprus if the goods they wanted were available at more proximate points in the network?' As we have seen, the two islands are some 2200 km apart, and we might expect trade to be primarily carried out through coastal navigation, cabotage. Braudel (1972, pp. 103-167) gives a vivid picture of the constraints on shipping in the sixteenth century AD, how much more will those factors have impacted navigation in the later Bronze and Early Iron Ages! Russell and Knapp (2017, p. 20) argue, in fact, that rather than ships making the journey all the way from Cyprus to Sardinia, or Sar-

dinia to Cyprus, cargoes were transferred between ships at intermediate points on the route across the wide sea.

Kanta (this volume) however shows that the evidence from the fortified site of Pyla-Kokkinokremos evidences not just imports of Nuragic artefacts such as transport amphorae but the presence of actual Sardinians, shown by the presence of a locally-made imitation of a Sardinian transport amphora on the floor of room 3 near the Pyla gate (such artefacts are inferior to imported Mycenean or Minoan ware – or their local imitations – so it was clearly important to the owner to have an imitation of a Sardinian form) and a Cypriot bathtub mended with lead plaques rather than lead clamps, i.e. mended using the Sardinian rather than the Cypriot technique. Fischer, on the other hand, reports the finding of seven Nuragic black burnished vessels in Area A, a ritual area at Hala, another port settlement on the south coast of Cyprus. The five bowls and a cooking pot were found in the cemetery, in offering-pits B, Z6 and Z7, and the best parallels for the forms are from towers A and C at the Nuraghe Arrubiu. Gradoli and Perra (this volume) show that two of the bowls found at Hala Sultan Tekke are made in the same fabrics as characterise bowls of the same form from the Nuraghe Arrubiu (which are made of locally sourced clay), while two others match the fabric of bowls from the Nuraghe Ortu Comidu (Sardara) and the Nuraghe Su Nuraxi (Barumini). During the conference Fischer argued that the incorporation of Nuragic tableware in ritual contexts at Hala Sultan Tekke indicates the participation of Sardinians in the rites, and indeed the fact that this evidence comes from three different ritual pits suggests that there may have been a number of Sardinians present at the site.

Alongside the evidence for Sardinians in Cyprus, two papers presented at the conference provided strong arguments for the actual presence of Cypriots in Nuragic Sardinia. For example, Perna noted that the Cypro-Minoan signs inscribed on a bronze pin from Antas of Nuragic form cannot be simply dismissed as random imitations of motifs but follow a well-known Cypriot epigraphic scheme: they clearly indicate that the owner of the pin wanted to personalise the artefact through writing on it in Cypriot. Further evidence for the presence in Sardinia of people who could write in Cypriot – and likely therefore of Cypriots – was reported by Zucca, Perna and Tocco (this volume): a stone spindle-whorl from tomb 4 at Nuraghe Sa Domu

Beccia (Uras) inscribed with Cypro-Minoan signs. Certainly, if these artefacts were not inscribed in Sardinia by literate Cypriots, they suggest that the individuals who made the inscriptions had a solid knowledge of Cypriot script.

It therefore seems clear that, *pace* Russell and Knapp (2017), not just pots and oxhide ingots, but also people travelled between the two islands and that they spent time living on them, participating in local rites at Hala Sultan Tekke, mending pots with their own distinctive techniques at Pyla-Kokkinokremos, and personalising local artefacts with writing at Antas and Nuraghe Sa Domu Beccia.

We may then ask a further question, did passengers and crew, as well as cargoes, transfer between ships at intermediate points or did boats sail the whole way between the islands, instituting direct contact? This is a more difficult question to answer, but we can certainly point out that the evidence of the oxhide ingots indicates that the contacts between the islands were more than sporadic (Kassianidou, this volume); it is likely that something important, valuable, was being traded for Cypriot copper.

One of the problems when discussing prehistoric trade is that we do not usually have any evidence for perishable goods. Sabatini and Alberti (this volume) discuss the evidence for the manufacture of high quality fabrics at Hala Sultan Tekke, characterised by fine threads and dense weaves. Fischer notes that purple dye was made at the site, and it is tempting to suggest that purple-dyed cloth was also a major export from Cyprus towards the west. Certainly, as Lo Schiavo noted in the concluding discussion, there is surprisingly little evidence for spinning and weaving equipment in Nuragic contexts.

George Papasavvas (this volume) presented an illuminating paper on the standards of value and equivalencies between metals documented in New Kingdom Egypt and 14th-13th century Ugarit. One unit of gold was worth two units of silver or 200 of copper in Egypt, but four units of silver and 800 of copper at Ugarit (Fig. 10.34). Such differences, of course, allowed traders to make a profit and show us that Egypt, which was rich in gold was hungry for copper. Cyprus is without silver or gold resources of its own, and we may imagine that the rich resources of argentiferous lead ore of Sardinia (Pearce 2018) may have constituted a motivation for trade with

the island. It is also not impossible that Iberian silver was traded to Cyprus by Nuragic middlemen. Lucia Vagnetti and Mauro Perra (this volume) reviews the evidence for Mycenaean pottery in the Nuraghe Arrubiu. Mycenaean imports appear first at the Nuraghe Arrubiu in the fourteenth century BC and both imports and local imitations are most common at Nuraghe Antigori (Sarroch), where they are recorded until the twelfth century BC. It is likely that the collapse of the Mycenaean palaces allowed the Cypriots access to the West (Borgna 1992, pp. 85-86), just as they replaced the palace-based traders in the east Mediterranean (Sherratt & Sherratt 1991, pp. 374-375), and indeed, in his discussion of the evidence for imitation, Italo-Mycenaean wares in mainland Italy, Marco Bettelli (pp. 187-188) notes how the bichrome fine ware painted with alternating horizontal red and black parallel bands found at Fondo Paviani (Legnago VR) shows close parallels with Cyprus and the Levant.

Finally, it is worth noting that in a recent paper, through a combination of tin and lead isotope and trace element compositional analysis, Berger et al. (2019) have established that the tin used to make tin ingots from three shipwrecks off the coast of Israel dated to the 14th-13th century BC circa (Hishuley Carmel, Kfar Samir south and Haifa) came from European deposits, most likely from Cornwall in the southwestern peninsula of England. They also note that a tin ingot from Mochlos (Crete), dating to around 1530 BC was compatible with a Central Asian rather than Cornish deposits, a pattern that they suggested indicated a shift in the supply of tin. This confirms the hypothesis of Kassianidou (2003), who has argued, on the basis of Cypro-Minoan signs on tin ingots from the Israeli and Uluburun shipwrecks, for a role of Cypriots in the tin trade (though there are no tin deposits on the island), and that the Cypriots may have travelled West to Sardinia in search of tin when supplies from the East were disrupted.

The hypothesis that tin from Cornwall was supplying Mediterranean markets in the second half of the second millennium BC may seem unfounded, and indeed there is no evidence for direct contacts. That said, just a few years ago it would have seemed risky to argue that most of the copper circulating in late second millennium BC Denmark originated in the Southern Alps, and yet we now know from lead isotope evidence that it is in fact true (Melheim et al. 2018;

Ling et al. 2019). It does not seem unreasonable, therefore, to respond to Fulvia Lo Schiavo's unresolved questions, posed during her introductory remarks to this conference, as to what the Sardinians exchanged for Cypriot copper and whether it was a local resource or whether the Sardinians acted as middlemen, that it is not unlikely that, as well as silver, a major item of trade between the two islands was likely to have been tin, some perhaps from Sardinia itself (cfr. Berger et al. 2019), but also likely originating from Cornwall, in the far off *Cassiterides*.

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