Phoenician Migrants in Sardinia? Economic Considerations with Special Reference to Nuraghe S'Urachi, San Vero Milis (OR)

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Introduction

The concept of migration focuses our attention on the individual or group rather than on that of the more usual term of 'colonisation', often overlaid by preconceptions of power and inequality. In fact, migration in the sense of movement of peoples is a key concept in archaeology as the resulting change and/or continuity in host societies are often the most important study areas. This paper focuses on the movement of people during the first millennium in Sardinia, especially the formation of settlements in the south west of the island by Phoenician settlers. I use the term 'Phoenician' as short-hand for the heterogeneous group of traders and settlers coming from the Levant region.[1] Was the development of settlements a result of colonisation or migration? Secondly it examines the fauna and material culture of the Phoenician settlement at the indigenous site of S'Urachi, what economic role did the Phoenicians play in the later life of the nuraghe and how is this visible in the archaeological record?

Colonisation and Migration

The principal model for the movement of ancient people in the Mediterranean has usually been seen through the viewpoint of colonisation, by which I mean the deliberate founding and setting up of settlements which had the original mother city as the point of reference. Most often this has been focused on the Greek creation of *apoika* and *emporia* with reference to an original mythical founder.[2] Similar concepts have been used for Phoenician colonies[3] with planned settlements founded across the western Mediterranean. That this was not necessarily true can be seen by the development of that main cultic and collective ritual space, the tophet, whose presence is limited to the western Mediterranean and often only develops late in Phoenician communities and is not therefore a continuation of Phoenician religious ritual brought from the homeland.[4]

In Iron Age Mediterranean archaeology it is difficult to separate migration from colonisation as traditionally any migrating people were considered to be *de facto* colonists, a homogeneous group of ethnically related people imposing themselves on less sophisticated indigenous populations. On the other hand, the term 'migrants' focuses on individual movements of people, not necessarily intent on colonisation.[5] This relieves us of much of the cultural baggage found in the term colonisation which is often linked to this Hellenising perspective of unequal power relationships.[6]

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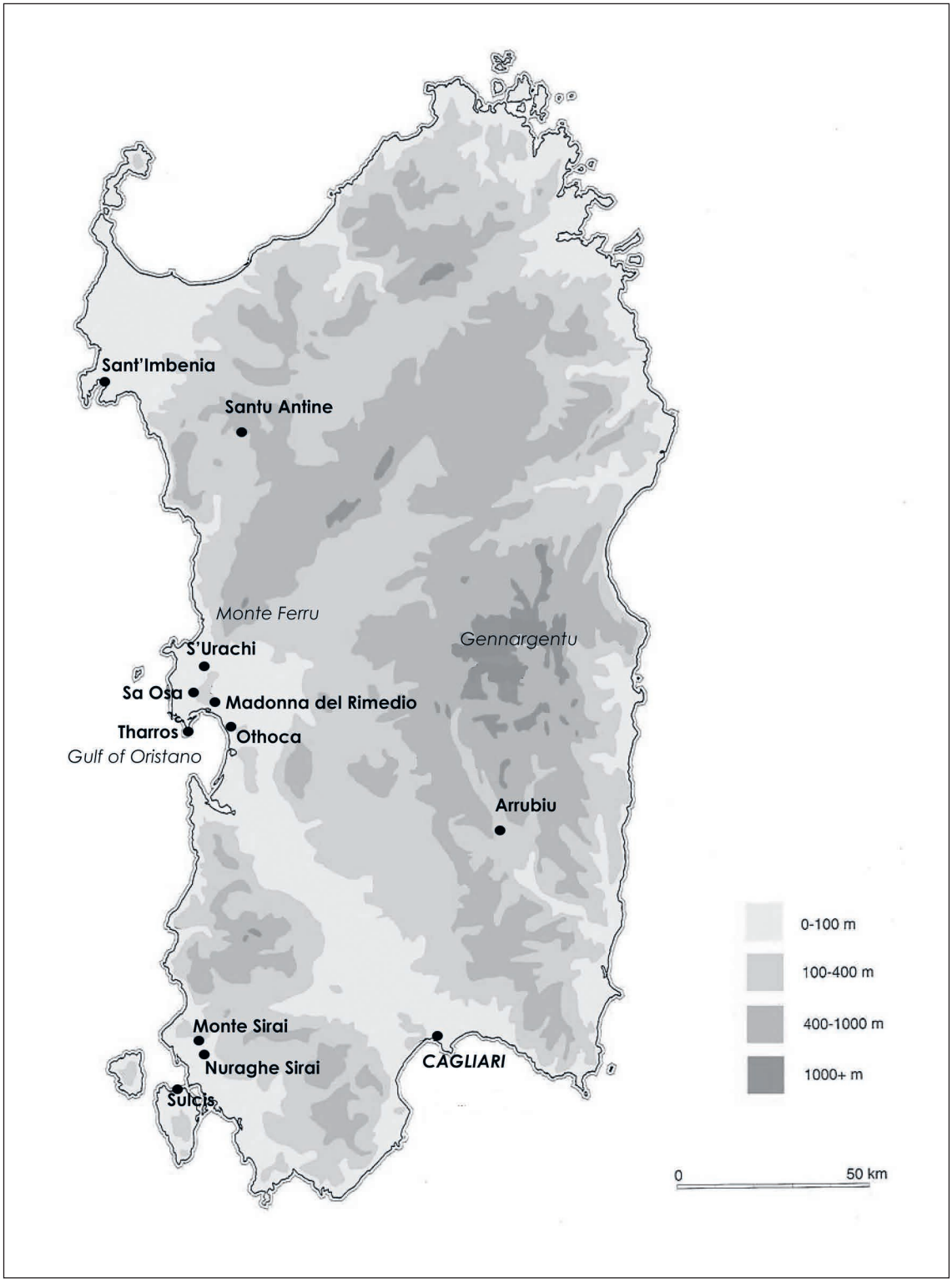

Fig. 1: Places mentioned in the text.

Equally importantly is the way that a focus on colonisation traditionally found in Iron Age Mediterranean studies does not take into account the agency of local populations nor the connectivity and fluidity of the Iron Age where new socio-political worlds were coming into being through the greater contact between people from different parts of the Mediterranean[7]; a process exemplified by the settlement at Pithekoussai, on Ischia. Its original labelling as a Euboean colonial settlement is now being seriously questioned by scholars who highlight its mixed burials and possible indigenous origins.[8]

Sardinia is a case in point here. Until recently its Iron Age phase (ca. 950–700 BC) was largely ignored as the scholarly tradition saw a net difference between the Bronze Age Nuragic culture and the colonial appropriation of the island by Phoenicians and Carthaginians in the first millennium BC.[9] More recently, focus on the continuing existence of the late Nuragic populations and their interactions with Phoenician newcomers has given way to a more nuanced view of interactions and consequently the formulation of new identities that existed in the early first millennium BC.[10]

Indeed, as part of this innovative approach, migration has recently become a hot topic, due also to the new interest in the genetic makeup of ancient people and the ability of scientists to sequence their genetic ancestry. In fact, recent research using isotope analysis or DNA is having a strong impact on the re-evaluation of migrations by giving fresh insight into past movements of peoples which is not solely based on the movement of objects.[11] It is not the place here to focus on the many questions raised by DNA analysis and its relationship to traditional archaeology[12] but one interesting aspect of DNA studies is the focus it allows us on individuals rather than groups of people. Seeing Phoenicians as migrants rather than colonists can open up new horizons.[13]

This paper first looks at the Phoenician migrants in the early Iron Age through the perspective of recent DNA analysis then using the faunal and ceramic remains I look at the effects that Phoenicians migrants had on two sites (Monte Sirai and S'Urachi) in the Iron Age. I suggest that a bottom up approach to the arrival of the Phoenicians can help us see how changes took place in Sardinia through interactions with the local populations.

Sardinia

Movements of peoples are often mapped through the presence of their material culture but it is often the case that there is no direct link between one and the other. Objects are transported and exchanged by different communities with the original meaning of circulating objects often being manipulated or transformed by host communities[14]. Direct links between producer and final resting place are also difficult to identify as there might be many stages between their starting and finishing points. DNA analyses on the other hand can help us give an idea of the origins of people found at specific sites. At Monte Sirai[15] an inland Phoenician settlement probably settled on a pre-ex-

isting Nuragic site, samples of mitochondrial DNA from several burials dating from between the 6th – 4th centuries BC have provided evidence of the genetic origins of its population.[16] The results highlight not only the mixed population at the settlement, something that is also seen by the different burial types found (inhumation, cremation, partial cremation)[17] but also underlines the concept of Phoenician migrants rather than colonisers by suggesting that individuals rather than large groups arrived there.[18] Furthermore, the mitochondrial data present emphasises the movement of women in these migrations undermining, perhaps, a commonly held belief that it was men who were principally involved.[19]

Although such small amounts of DNA data need to be used with caution they do suggest that the traditional view of groups of colonisers settling in Sardinia needs to be revised, especially for the later settled inland sites. The role of women is also necessarily highlighted and as they were generally the primary domestic providers and food preparers in communities this impacts on culinary traditions of the sites where they settled.[20] The evidence suggests that they were not only indigenous individuals but were part of the migrating population, *contra* the generally held idea that women were often brought into the community from outside to 'marry' foreign men.

S'Urachi

S'Urachi provides a useful test area for examining economic contributions of migrating communities. S'Urachi, a Bronze Age nuraghe is a centrally located in the hinterland of the Sinis peninsula conveniently situated near the Phoenician settlements of Tharros, Othoca and Neapolis, the former dating back to the earliest Phoenician presence on the island[21] and acting as a gateway to the more inland Nuragic communities along the Tirso river (fig. 2). The nearby Monte Ferru with its rich mineral resources and upland pastures provided excellent grazing for cattle and iron for metal hungry traders. The site is especially important for long term studies on socio-economic changes as it was inhabited for many centuries after the end of the Nuragic period (ca 800–100 BC)[22] and can shed light on Iron Age and later practices. It has been the focus of large scale recent excavation campaigns, led by Peter van Dommelen (Brown University) and Alfonso Stiglitz (Comune di San Vero Milis), of which the writer is part. Two areas have been investigated; Area D to the south of the nuraghe which comprises an area of about 15 × 20 sqm between the external wall of the nuraghe and the old Roman road. Various rooms can date the later layers to the 4th–2nd centuries BC whilst deeper levels (not yet completely explored) contain material dating back to the 7th–6th centuries BC[23] and Area E measuring 10 × 10 sqm situated to the east of the nuraghe, which comprises various floors used for the working and dumping of domestic food products. These surfaces are dated to between the 6th–4th centuries BC and overlie a massive ditch running parallel to the wall of the nuraghe, which may have had a defensive function and is

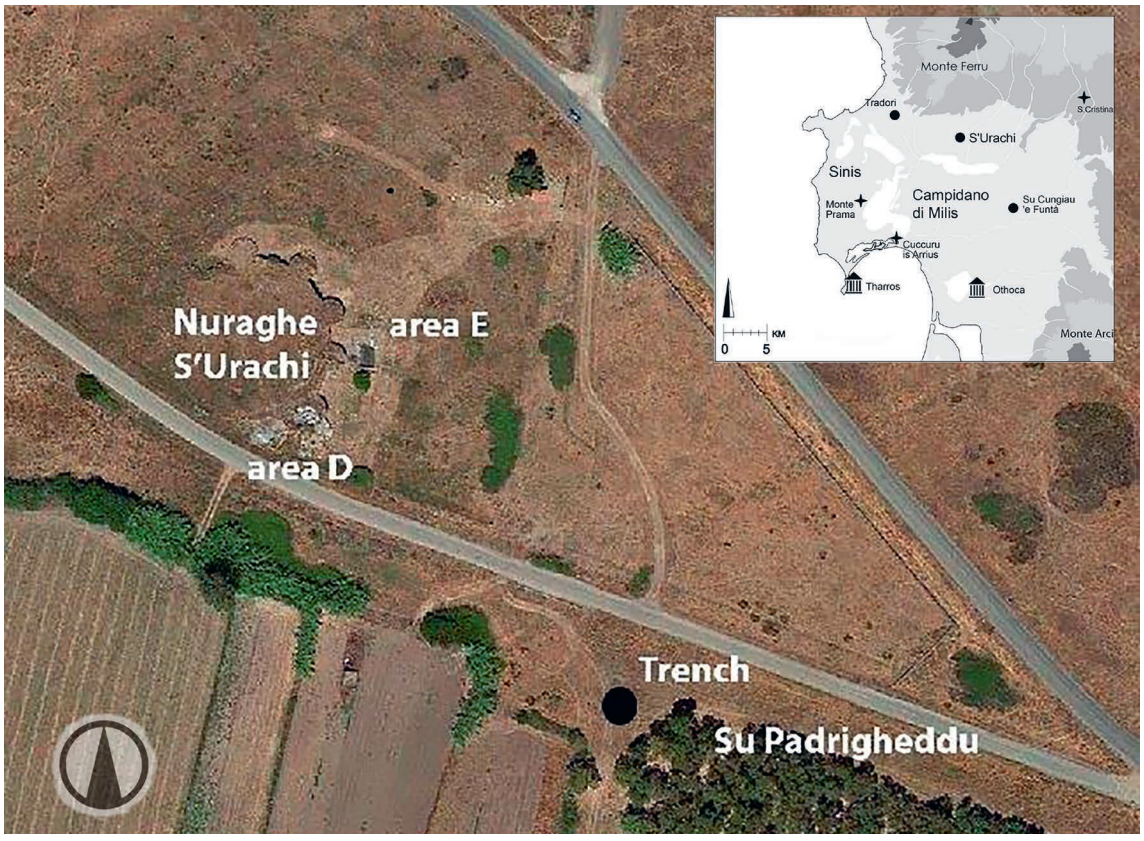

Fig. 2: S'Urachi.

dated to the 7th–6th centuries BC. A third area, a few hundred metres from the nuraghe, is that of the Nuragic village of Su Padrigheddu[24] where a test trench (ca 1.5 × 1.5 × 1 m) sunk near the area of the site produced a collection of material and faunal remains dating to the Iron Age.[25] The presence of mixed Nuragic and early Phoenician material (i.e. amphorae, table and fine-ware),[26] from here together with previous data from Su Padrigheddu[27] provides good evidence of indigenous/Phoenician interactions at the site.

Economic Considerations

Animal Husbandry

This section focuses on two aspects of the economy, transport/trade and food production. Phoenician migrants may not have been many in number but the influx of people and more especially, new techniques, had an impact on the local economies.

One area where this can be seen is with animal husbandry as changes in food consumption and agricultural practices are reflected in the faunal remains, and comparable statistics are available from nearby sites.

Fig. 3: Monte Sirai looking south to Sant'Antioco and Sulcis.

The charts (figg. 4 and 5) focus on domestic animals, which could be used as either work animals or food; generally animals for food are killed at an earlier age whilst those for work are slaughtered later so as to get full use out of them. Firstly, the data from pre-Phoenician Sardinia (fig. 4). The only relevant Mid-Bronze Age site is that of La Madonna del Rimedio (a few kilometres from S'Urachi). Evidence from here shows the use of mostly sheep and goats, closely followed by cattle. It is noticeable that the kill-off profiles were mixed suggesting that all animals were used for both food and work.[28] The Late Bronze Age site of Sa Osa shows a strong predominance of sheep and goats over cattle whilst the data percentages are similar in both the Late Bronze and Early Iron Age Nuragic sites of Sant'Imbenia and Santu Antine. Sheep and goats predominate, never less than 40% of total domestic and deer bones.[29] Kill-off profiles at all three sites show that sheep and goats were generally killed at a young age, suggesting that they were principally used for meat, whilst cattle were mostly slaughtered when older (in their 3rd year or above), implying that they were mainly used as work animals. Pig kill-off, similar to sheep and goats, suggests they were likely used for their meat.

This data contrasts strongly with the Iron Age Su Padrigheddu where the most common species were cattle and deer:[30] the greater number of the latter was probably related to the proximity of Monte Ferru, which would have provided a good hunting ground.

The later Phoenician sites (fig. 5) show some differences; both nuraghe Sirai, an indigenous site settled by Phoenicians in the 7th century BC and the nearby Phoenician settlement of Monte Sirai have a large number of deer and pig remains (ca 70% of total

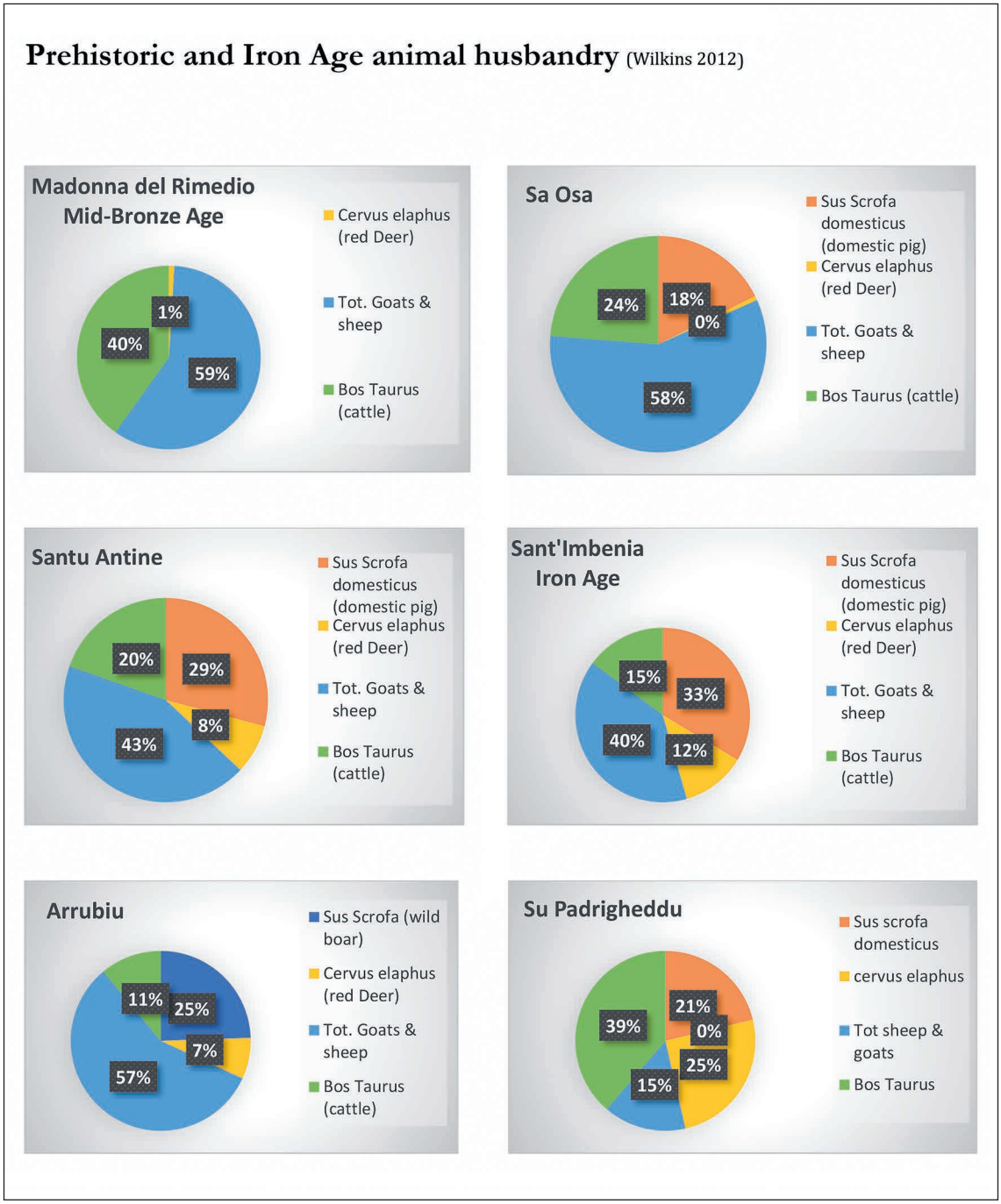

Fig. 4: Prehistoric animal husbandry.

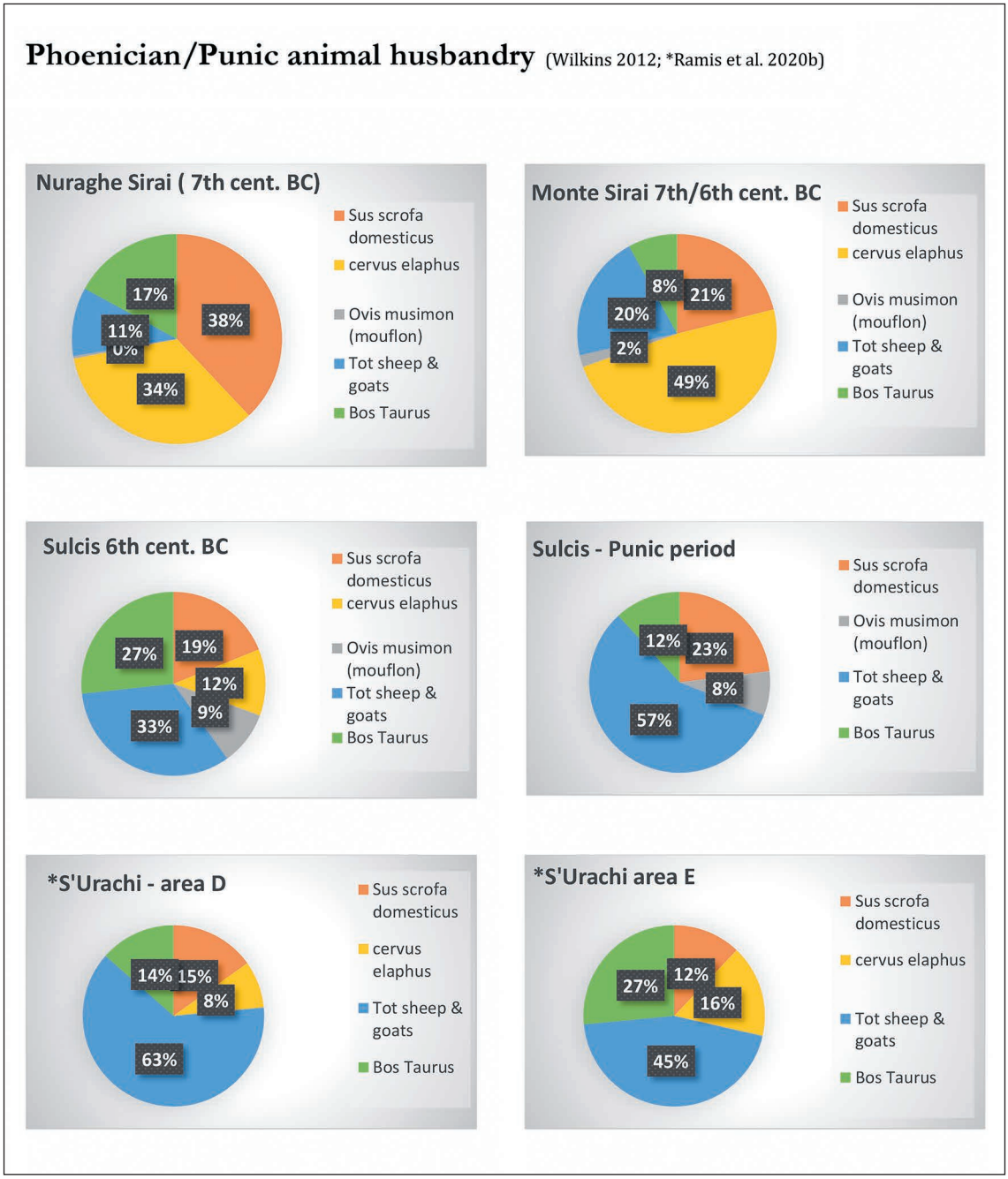

Fig. 5: Phoenician-Punic animal husbandry.

animals) and it seems likely that whilst the latter were primarily slaughtered for food the former, killed as adults, may have been used chiefly for their antlers.[31] On the other hand, sheep and goats only make up 11% of numbers at Nuraghe Sirai and 20% at Monte Sirai, which is considerably lower than numbers at the Iron Age indigenous sites. They were probably used for secondary products like milk or hair/leather.[32] The data from S'Urachi[33] is still partial but shows there was a dramatic decline in deer numbers between the Iron Age and the mid-first millennium BC, numbers which are mostly compensated for by sheep and goats which steadily increase from 15% of total animal bones in the Iron Age to 63% in the Punic period. This suggests a change of habits with less reliance on hunting and more on farmed animals. Cattle too see a significant and continuing decline between the early and later first millennium BC.

Kill-off dates match the Nuragic ones with most sheep and goats being slaughtered between 16–24 months and cattle being kept until adult before being slaughtered; presumably the former were killed for meat and the latter used more as work animals, a pattern that repeats from the Nuragic period. Interestingly, whilst the Iron Age trench at Su Padrigheddu reveals a different balance of domestic animals (with cattle predominating, followed by deer then pigs) the percentages of animal remains in Phoenician/Punic S'Urachi are more in line with other Bronze and Iron Age sites. This could be due to sampling methods but may also suggest continuity with pre-Phoenician husbandry. At S'Urachi the clear decline in the use of cattle throughout the first millennium BC and the increase in sheep and goats, is in line with the overall evidence from Phoenician/Punic sites where normally ovicaprines dominate.[34] This may also relate to changes in the environment which was becoming increasingly drier. There is also an increase in the number of pigs, a trend also found at Sulcis, which perhaps relates to how well they were regarded as food; many were killed in the first two years of life, even if the main period for slaughter was between the third and fourth year. The gradual increase in numbers of sheep and goats through the Punic period allows us to conclude that the Phoenician impact on animal husbandry became gradually more visible in the later Punic period.

Interesting data to emerge is that of the proportions of wild and domestic mammals. The Bronze/Iron Age sites do not show, as might be expected, that the highest proportion of meat came from hunting.[35] Only Arrubiu shows a large number of wild boar remains, whilst at other sites deer numbers are relatively contained. The only exception is Su Padrigheddu where deer make up 25% of mammal bones.[36]

A clearer difference between the Nuragic and Phoenician phases is found with the arrival of new animal species[37] probably introduced by the Phoenicians, these include horses, donkeys and chicken all of which were only found in Phoenician layers at S'Urachi.

Ceramics

If the DNA data from Monte Sirai is correct, there were few early Phoenicians settling in Sardinia, and their limited initial impact is perhaps confirmed by the modest early changes in animal husbandry. The impact of Phoenician presence on the economy can also be seen with the introduction of new ceramic forms. Communities from the Near East settling on Sardinia brought about changes in the mobility of goods, stimulating new markets with the island. The discovery of Iron Age Sardinian pottery in colonial settlements in Iberia and elsewhere is evidence of contact and trade with Sardinia. The production of the so-called Sant Imbenia amphorae from the mid–9th century BC is a case in point. First discovered at the homonymous site in North Sardinia they are emblematic of the contact between Nuragic people and Phoenicians. They appear to be a hybrid form of container, using local fabrics that combine handmade and wheel techniques to create a form that directly refers to near eastern prototypes.[38] The Sant'Imbenia amphorae are particularly pertinent as they document a type of container used for the movement/transport of goods, rather than just storage, which is a new addition to the local repertoire. Six such rims were found in a group of material from Su Padrigheddu made in a local fabric more generally used to make typical Nuragic material, meaning that they were created by people coming from a local tradition rather than foreigners. The manufacturing technique is also mixed, with the body being made by hand, and the rim added later. The same type of manufacturing technique has been identified for some more typically Phoenician cooking containers such as cooking pots and basins[39] again from Su Padrigheddu.

Certainly, if we view the economy from a macroscopic perspective the presence of Sant'Imbenia amphorae and the arrival of more typical forms of Phoenician transport amphorae imply that the local economy was being absorbed into a wider market. Most transport amphorae (46%) found between 760–675 BC from Carthage were from Sardinia.[40] Although their content is typically seen as wine, the lack of data concerning surplus wine production from Sardinia for this period allows us to think they contained other products. Chopped preserved meat was a possibility as evidenced from the contents of Ramon T-2.1.1.2. amphorae from Nora[41] – a form that gradually superseded the Sant'Imbenia type in the late 7th–early 6th centuries BC – and later (4th–3rd centuries BC) from the Santa Giusta lagoon only a few kilometres from S'Urachi. The preponderance of sheep and goat remains found within them corresponds to the increasing importance of ovicaprine husbandry at S'Urachi in the later Punic period.[42]

Tharros was probably the main contact point for trade and amphorae from S'Urachi show a marked predominance of Tharrense fabrics from the late 7th century down to the 4th century BC.[43] At the same time the evidence of a wide variety of transported foodstuffs from Sant Giusta show how the hinterland was being harnessed for trade and exports. Overall, however, the evidence points to a gradual decline in local traditions both in food and material culture over this period. At S'Urachi there appears to be some overlap between local and Phoenician material culture to the 7th century BC but

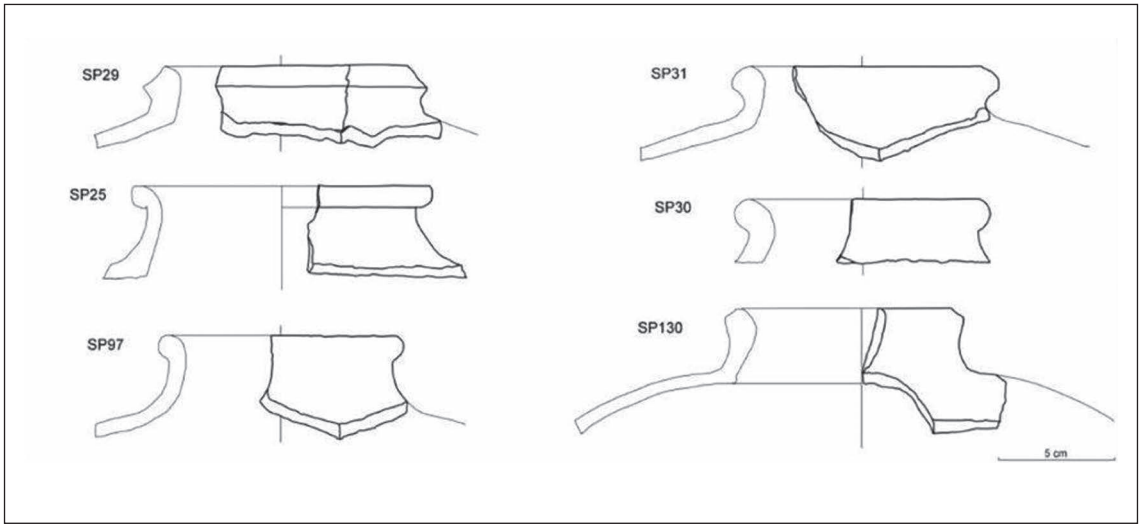

Fig. 6: Sant' Imbenia amphora – Su Padrigheddu.

in later periods only Phoenician/Punic material is present. Yet, continuation of local practices can be seen in the use of certain ceramic fabrics even when making objects in a Phoenician/Punic style. Of 199[44] fragments of cooking pottery produced between the 4th–2nd centuries BC 20 were still made using the SVM 1 fabric showing how indigenous traditions continued in the local economy through to the late first millennium, a continuity matched by evidence from other 'colonial' settlements in Sardinia such as Olbia.[45]

Conclusions

The evidence from DNA studies raises some questions about the role, number and gender of Phoenicians in Sardinia and consequently their impact on the local economy. It complements other material evidence which highlight the mixed and pacific nature of life in the new (and old) settlements after their first arrival. The data from animal husbandry practices presents a complex picture that varies from site to site. It suggests continuation with pre-Phoenician practices of mixed animal husbandry – at least in the early Phoenician period – at S'Urachi, with a gradual increasing dominance of Punic practices through the latter part of the first millennium, which combines with greater economic control over production and transportation. One area where we could see changes is in the kill-off dates for some animals at S'Urachi, which later than in the Bronze/Iron Ages could be linked to changes in cooking practices with the Phoenician use of deep cooking pots and casseroles, rather than the shallow pans of the Nuragic period. This may have allowed for the longer cooking of older animals and consequently freeing up herds to be used for producing secondary products of milk, wool and cheese. Finally, the continued use of certain ceramic fabrics at S'Urachi into the later first mil-

lennium BC suggest that they were produced by people within an indigenous tradition and highlight continuities of practices even during a period when the territory was considered Punic.

Notes

[1] There is a vast bibliography on the topic, cf. Quinn 2018, 24–62 for a detailed discussion; Aubet 2001, 6–25.

[2] Donnellan 2016, 11; van Dommelen 2012, 398 f.

[3] Aubet 2001, 235–242.

[4] Quinn 2018, 94 f.

[5] The International Organization for Migration (IOM) definition of migrant is "any person who is moving or has moved across an international border or within a State away from his/her habitual place of residence, regardless of (1) the person's legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is" https://www.iom.int/who-is-a-migrant (retrieved 29. 05. 2018).

[6] Dietler 2005; van Dommelen 1997; van Dommelen 2012.

[7] Broodbank 2013; van Dommelen 2017.

[8] Donnellan 2016; Kelley 2012.

[9] The bibliography is increasing rapidly, cf. van Dommelen – Roppa 2014, especially 271 f.; Lo Schiavo et al. 2010, 281–283; Bernardini 2007; Perra 2018.

[10] Tronchetti 2014; van Dommelen 1998; van Dommelen – Roppa 2014.

[11] Reich 2018.

[12] Callaway 2018.

[13] Burmeister 2017.

[14] Appadurai 1986; van Dommelen – Rowlands 2012.

[15] Guirguis 2017, 147.

[16] Matisoo-Smith et al. 2018. It should be noted that mitochondrial DNA has the advantage of being easier to analyse but the disadvantage of not being able to give us a complete picture of the genetic make-up of individuals, and that only through the female line (Reich 2018, 29 f.).

[17] Piga et al. 2010.

[18] Matisoo-Smith et al. 2018, 14.

[19] The importance of women in knowledge transmission is also highlighted from a genetic study in Germany, Knipper et al. 2017; Matisoo-Smith et al. 2018, 14 f.

[20] Hayne et al. 2016.

[21] Stiglitz 2012, 244.

[22] The Nuragic period is generally held to be ca. 1600–800 BC.

[23] Stiglitz et al. 2015, 200 f.; van Dommelen et al. 2018.

[24] Roppa 2012; Roppa 2015.

[25] I warmly thank Linda Gosner for allowing me to use some of her data. Gosner – Smith 2018; van Dommelen et al. 2018.
[26] Gosner et al. 2020.
[27] Cf. notes 20 and 24.
[28] Wilkens 2012, 87.
[29] Included as they were an important meat resource.
[30] The local importance of deer is confirmed by recent analyses of the late Iron Age levels of S'Urachi Area E, where they accounted for 22% of total faunal remains analysed (Ramis et al. 2020).
[31] Campanella 2008, 24.
[32] Carenti 2005, 220.
[33] Data from S'Urachi is preliminary and I am indebted to Damià Ramis for his generous help in allowing me to use some of his data, the majority of which comes from Ramis et al. 2020.
[34] Campanella 2008, 67.
[35] As suggested by Campanella 2008, 22.
[36] Cf. similar data (22% of totals) from the late Iron Age deposits at S'Urachi, Area E (Ramis et al. 2020b).
[37] Carenti – Wilkens 2006.
[38] Oggiano 2000, 240–242.
[39] Roppa 2012, 10; Roppa 2015, 138.
[40] Bechtold – Docter 2010, 103.
[41] Finocchi 2009, 386.
[42] Del Vais – Sanna 2012, 217.
[43] Roppa 2015, 137 f.
[44] Data from the database of unpublished material from S'Urachi area D.
[45] Cavaliere 2008.

Image Credits

Fig. 1: Hayne. – Fig. 2: Gosner – Smith. – Fig. 3: Hayne; adapted from Wilkens 2012. – Fig. 4 and 5: Hayne; adapted from Wilkens 2012 & Ramis et al. 2020. – Fig. 6: Roppa 2012, 10 fig. 14.

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