

Abstract

Despite Sardinia's rich Neolithic record, very little of it has entered into European scholarly discourse. This volume responds to that omission by providing a detailed, interpretive synthesis of Sardinian Neolithic remains of the 6th and 5th millennia. It is laid out and written as a prequel and companion to *Punctuated Insularity. The archaeology of 4th and 3rd millennium Sardinia* (Webster and Webster 2017) which deals similarly with the Sardinian Copper Age. The chapters treat in turn ceramics, settlement remains, mortuary and non-mortuary cult deposits, crafts, imagery, art and extra-insular links especially with neighbouring Corsica. Following a report on the evidence for a human presence during the Palaeo- and Mesolithic periods, by Maud Webster, individual chapters are devoted in turn to the pioneering so-called Impressa phase, Cardial- and Epicardial phases (Early Neolithic), the Middle Neolithic Bonu Ighinu phase and the Late Neolithic San Ciriaco phase. The Final Neolithic Ozieri phase, which bears the earliest evidence of metal use in Sardinia, is given only brief consideration as an Epilogue, having been recently examined in detail in the earlier volume (*Punctuated Insularity*).

Mesolithic deposits including habitations and burials are well confirmed but enigmatic regarding their implications for hunter-gatherer and Neolithic encounters. The material record suggests a hiatus between Mesolithic and Neolithic occupations, while genetic studies suggest enough entanglement to have instilled pre-Neolithic genetic markers traceable today. The first Neolithic groups – pastoralists bearing signature Impressa ware – can be dated on Sardinian and Corsica to the early centuries of the 6th millennium, roughly equivalent to datings from the northern Tyrrhenian mainland and only slightly later than those in the southern Italian peninsula, and would seem to document the rapidity with which Neolithic groups arrived into the northern regions from the south. Full colonisation by agro-pastoral communities commenced before the mid-6th millennium, probably involving new migrant groups, bearing Tyrrhenian Cardial-impressed pottery with close parallels in Tuscany – their most likely homeland. During the second half of the 6th millennium, the introduction of so-called Epicardial ceramics, which clearly diverge from the Cardial tradition, suggests a fresh influx of settlers. During the subsequent Middle Neolithic Bonu Ighinu phase of the early 5th millennium, traditional cultural features combined with unprecedented and unique socio-economic developments. Better-crafted wares in a wider range of forms appeared, some decorated with zoomorphic/anthropomorphic mouldings finding stylistic parallels among repertoires of the southern Italian peninsula. Burials in unprecedented hypogeal tombs with accompanying carved stone statuettes suggest an incipient elite with privileged access to the island's obsidian resources. During the San Ciriaco phase of the later 5th millennium, ceramic expression featured an array of high-quality austere and generally unembellished forms, paralleling those in Corsica. Earlier so-called volumetric idols were replaced by slimmer steatopygeous forms, while customs and architecture of a European-wide megalithic burial cult took hold in northeast Sardinia and Corsica featuring slab-cist graves with cairns and aniconic monolithic uprights (stelai, menhirs or baetyls).

One overarching impression of the Sardinian Neolithic corpus is one of diversity. The island was probably not culturally 'unified', nor the adaptive undertakings specific to Sardinia. A notable finding is that plant cultivation was probably never the predominant subsistence mode. Both Sardinia and probably Corsica supported instead a patchwork of sub-insular and local regimes involving herding, hunting, collecting – and, at times, cultivation.

Introduction

About this account

The cover of the splendid *Oxford Handbook of Neolithic Europe* (Fowler, Harding and Hofmann 2015) features what is arguably one of the finest examples of Neolithic stone sculpture anywhere. At a first glance, it might conjure up comparisons with the famous mother goddess figurines of Anatolia. But this carving is Sardinian, dating to the Middle Neolithic – an expression of the rich material culture known as Bonu Ighinu. The intrigued reader, turning to the text for more about this, will find precious little, however: it is still the case, as it has long been, that despite Sardinia's important record, very little of it has made its way into the general discourse on the European Neolithic. The Sardinian Copper Age has fared somewhat better, and the Sardinian Bronze Age is well known for its megalithic tower-houses and tombs. But for the Neolithic phases of the sixth and fifth millennia BCE, detailed syntheses accessible to the scrutiny of European scholarship and written in English, are simply lacking. This omission has motivated the writing of this volume; it has moreover allowed its purpose to be straightforward and, to the degree that post-positivist epistemologies will permit, to justify its being primarily descriptive and interpretive.

The earliest evidence of a Neolithic presence in Sardinia comes from several upland caves in the form of so-called Impressa ceramics (see below) with associated C14 dates around 5700 cal BCE. These dates are comparable to assays from neighbouring Corsica, and only slightly later than those from Early Neolithic deposits on the mainland. The archaeology of sixth- and fifth-millennium Sardinia is thus an archaeology of the so-called neolithisation of the broader Tyrrhenian region which includes Sardinia and Corsica, and primarily a study of the frequentation and settling of Sardinia as a locale, a large, insular, west-Mediterranean landmass, by people with non-indigenous heritages. That this phenomenon was *ex oriente* is not in doubt: the earliest ceramics have clearly traceable eastern precedents, associated chronometric data trace the spread of Neolithic settlements across the Mediterranean from east to west, and a high percentage of eastern genetic markers (with minor pre-Neolithic contributions) persists among contemporary populations, especially Sardinian (Chiang et al. 2018; Omrak et al. 2016; Olivieri et al. 2017; Chikhi et al. 2002).

In short, the aim of this volume is to provide a detailed, interpretive synthesis of the Sardinian Neolithic archaeological record. The study is laid out and written as a prequel and companion to *Punctuated Insularity. The archaeology of 4th and 3rd millennium Sardinia* (Webster



Fig. 1. Sardinia in the west-central Mediterranean.

and Webster 2017) and, in the same way, addresses a wider scholarly readership interested in the Neolithic of the west-central Mediterranean, but not necessarily familiar with the less known Sardinia data. The chapters also conform more or less to the layout of the earlier volume, treating in turn ceramics, settlement remains, mortuary and non-mortuary cult deposits, crafts, imagery and art, and for each theme noting possibly significant extra-insular links and, where feasible, offering interpretive suggestions (Fig. 1).

The earliest Neolithic history of Sardinia is bound up with that of neighbouring Corsica, separated only by the short stretch of sea at the Straits of Bonifacio. Throughout much of the period under study here, Corsica supported ceramic repertoires diverging from those in Sardinia mainly in name, made use of nearly exclusively Sardinian obsidian, and for similar industries, and deployed similar subsistence strategies combining the herding of domestic stock, the cultivation of cereals and pulses, and the exploitation of wild plants and animals. It is likely too that the Neolithic populations that first explored and eventually colonised Sardinia had traversed Corsica and/or its shores *en route* from the Italian mainland. Although the project at hand focuses on exploring the Sardinian evidence of neolithisation, it will also track events in Corsica to some extent.

This account begins with a report on the evidence for a human presence here during the remote Palaeo- and

Mesolithic periods, kindly contributed by Maud Webster. Following this, the account will step off the island in order to discuss what is known about the cultural landscape from which the first Neolithic groups to arrive here are likely to have come and, as far as possible, what repertoire of resources, technologies, skills, experiences, customs and traditions will have accompanied them. This practical and intellectual baggage is commonly referred to as ‘the Neolithic package’, and its main distinctive feature is usually indicated as agriculture. With this backdrop in mind, Sardinia will then be considered on the eve of the Neolithic, as it were: as a location, a landscape with a set of conditions of potential interest or necessity to incoming pioneers bearing ‘the Neolithic package’, following which the material evidence for all of the Neolithic cultural adaptations in the island will be described and discussed in turn: the pioneering so-called Impressa phase first, followed by Cardial- and Epicardial phases (Early Neolithic), the Middle Neolithic Bonu Ighinu phase and the Late Neolithic San Ciriaco phase. For all, a range of developments will be traced, including productive industries, demography, technologies and land-use, as far as the evidence allows. A final chapter will then tease out and discuss the findings made in the course of the study regarding the nature and circumstance of the Sardinian Neolithic.

Sardinian cultures/phases

As for later periods of Sardinian prehistory, chronological divisions of the Neolithic are often referred to as facies, phases or cultures with reference to the diagnostic ceramics by which they are recognised archaeologically (see Fig. 2). This approach will be taken here as well, in order to provide consistency with previously published *corpora*. It would be a mistake, however, to regard such labels as

necessarily suggesting the presence of island-wide cultural unities, or modalities specific to Sardinia. It is clear, based on available evidence, that the cultural profiles of the period in question were diverse and sometimes local. Any insular-level ‘unity’ probably did not go beyond a common ceramic *koiné* which is, however, indicated, and the named phases (Impressa, Cardial, Epicardial, Bonu Ighinu and San Ciriaco) generally transcend insular boundaries and change names more on the basis of national geographies and academic traditions than on prehistoric cultural or demographic discontinuities. In light of this, one might view the island during the period under examination as supporting not one but multiple Neolithics. It is not until the early fourth millennium BCE, in the Final Neolithic-Initial Chalcolithic, that Sardinia can be recognised archaeologically as bearing something like a unified material culture and possibly a common identity specific to the island as such. It is also to that phase, known as Ozieri or San Michele, that the earliest evidence of metal use can be dated in the island.

The Ozieri repertoires and their implications were examined and discussed in the volume *Punctuated Insularity* (Webster and Webster 2017). For the present volume I have attached an epilogue that reviews the defining and sometimes extraordinary features of this important *facies*.

Considerable new work on lithic remains – in particular flaked tools – by Carlo Lugliè and others have brought us closer to identifying phase-specific industries for the Early Neolithic. It is still unclear, however, how best to consistently differentiate Impressa, Cardial and Epicardial assemblages in the absence of associated ceramics or radiometric data, and the data are generally considered under the umbrella-rubric of ‘Early Neolithic’, including a



Fig. 2. Cultural-chronological sequence for the west-central Mediterranean (after Manen 2007, fig. 89; Manen and Sabatier 2003, fig. 17; Lugliè 2018; Tanda 1998; Lo Vetro and Martini 2016, table 2; M.G. Melis 2011; Tramonì and D’Anna 2016).

number of non-ceramic deposits. For the present synthesis, however, I will take into consideration only such aceramic sites that have radiometric dates or associated diagnostic material like sculptures or adornments.

Sea-level changes and the archaeological record

There have long been suspicions based on finds of submerged archaeological deposits that significant parts of the Neolithic landscape have escaped detection due to post-Pleistocene sea-level rise (e.g. Antonioli et al. 1994). Recent data indicate that the Neolithic sea-level around Sardinia was as much as 20 m lower than today, and in consequence, the shoreline lay up to 10 km further out in some places (Lambeck et al. 2004, fig. 12; Antonioli et al. 2007). The most affected landscapes are the coastal areas with gentler topography, namely the larger gulfs and river mouths. The current shoreline at the Gulf of Oristano, for example, may have been some five km further out than today (Pittau et al. 2012, fig. 1), while smaller bays have been modified to a lesser degree. Recent work in the now submerged caves at Porto Conte near Alghero, for example, have shown that although they are now under 8-10 metres of sea water, they were c. 15 m above sea-level and about a kilometre from the shore in the sixth millennium BCE (Palombo et al. 2017).

From an archaeological perspective, these facts imply a likelihood of significant *lacunae* in the Neolithic landscape record. As will be discussed further, the gulfs and the mouths of the island's waterways were probably the very settings targeted by Neolithic settlers seeking pasturage and fertile soils. Coastlines with steeper topography have been less altered by sea-level changes, but would also have been less attractive to early agro-pastoralists. The generally rugged and precipitous east coast, for example, probably appears today much as it did during the Neolithic. Similarly, the topography along the likely routes in and out of the island have changed very little: Corsica to the north lay across a 12 km stretch of sea, the Tuscan archipelago eastward from there some 60 kms away, and the mainland another 35 km (see Figs. 1, 3).

A note on interpretation

The evidence discussed here supports some interpretive statements regarding the possible social significance of certain patterns perceived in the data. It should go without saying that any and all such statements are necessarily tentative and ideally hypothetical. As elsewhere, the Sardinian record and its archaeology are attended by uncertainties regarding the representative nature of the evidence, dependent as it is on the variable and generally unaccountable vagaries of preservation and sampling inadequacies. Much of the Neolithic evidence on Sardinia has moreover been revealed through rescue operations, a circumstance which probably aggravates the situation. But such realities are part and parcel of archaeological inquiry, which perforce must proceed from and return to the available material evidence as both source and interrogator



Fig. 3. Topographic map of Sardinia. (J.M. Borràs for Wikimedia Commons).

of its statements. Each chapter therefore closes with an attempt at interpreting or making sense of the evidence such as it stands today, with the understanding that future findings – and future approaches – will be brought bear on them.