CAPO MANNU PROJECT 2011 – PREHISTORIC POTTERY

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CATEGORY

Report

LANGUAGE

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ABSTRACT

In this paper the authors present the results of a study carried out on the prehistoric pottery from the 2011 survey of the Capo Mannu Project, central-western Sardinia. The chrono-typological analysis of ceramics clearly indicates the presence of different chronological phases of occupation of the area prior to the seventh century BC: Final Neolithic or Ozieri phase, Early, Middle and Recent Bronze Age. This confirms old reports, such as those concerning the presence of a Neolithic settlement on the hill of Monte Benei, but it also raises some important questions that will be investigated in the next campaigns.

INTRODUCTION

In this paper we present the results of a study carried out on the prehistoric pottery from the 2011 survey of the Capo Mannu Project (see Castangia in this volume). In the following section we illustrate the methodology adopted in this research, followed by a description and analysis of the quantitative and typological data, and a final discussion.

METHODOLOGY

All the pottery found during the survey was collected daily, according to newly defined Territorial Units (TU). Every bag was recorded in the general list of findings in the main database of the project. The potsherds were counted, as were the number of walls, rims, handles and any other diagnostic elements in each bag. We then separated prehistoric pottery from the materials dated from the 8th/7th centuries onwards. The remaining fragments were analysed in order to exclude non-indicative fragments or those difficult to reconstruct in the process of drawing.

At this point the selected diagnostic characteristics of the materials have been documented in a dedicated table within the database. The following features were documented: rim diameter, decoration (yes/no), size, quantity, and lithology of clasts (see Castangia 2010:47), fabric class, external surface, internal surface, external colour, internal colour, section colour, firing (Shepard 1956; Rice 1987), black heart (yes/no), functional type (Castangia 2010), historical comparisons (Leonelli and Campus 2000, Castangia 2009 and 2010), and chronology.

QUANTITATIVE AND DISTRIBUTIONAL DATA

During the September 2011 campaign, a total of 7426 ceramic fragments were collected on the field (Fig. 1). The larger amounts, exceeding 700 units, come from the TUs 319 (1424, site of Monte Benei), 821 (1329, site of Capo Mannu) and 1291 (781, site of Su Pallosu). Amounts of between 200 and 700 units come from other TUs in the area of Monte Benei (246, 256, 288, 302, 352, 375, 376, 393, 394, 398, 427) and from TU 655, where they refer to a sample we took on the site of Sa Turr'e Sa Mora (see Castangia in this volume). Within the area of Monte Benei, two main concentrations were observed: one to the north of the hill (TU 394), and one to the south (TUs 288, 302, 319). In all likelihood, they correspond to the locations of two settlements, one dated to the period 3rd cent. BC – 1st cent. AD (to the North) and one Neolithic (to the South).

We separated the prehistoric potsherds from the later ones (everything later than the 8th century BC), and selected a total of 92 fragments for further qualitative analysis (Table 1). These come from two sites (Fig. 2): Su Pallosu - TU 1291, 4126 fragments in total with those coming from the 2006/2007 excavation, and Monte Benei - TU 246, 256, 278, 288, 299, 302, 305, 308, 315, 319, 332, 333, 337, 339, 343, 347, 352, 359, 362, 369, 375, 376, 377, 380, 387, 391, 393, 394, 398, 427, 430, 433, 1305, 1306, 1307, 1308 – 6284 fragments collected during the survey . The other territorial units investigated in 2011 have not yielded any diagnostic fragments datable to anytime before the 8th century BC.

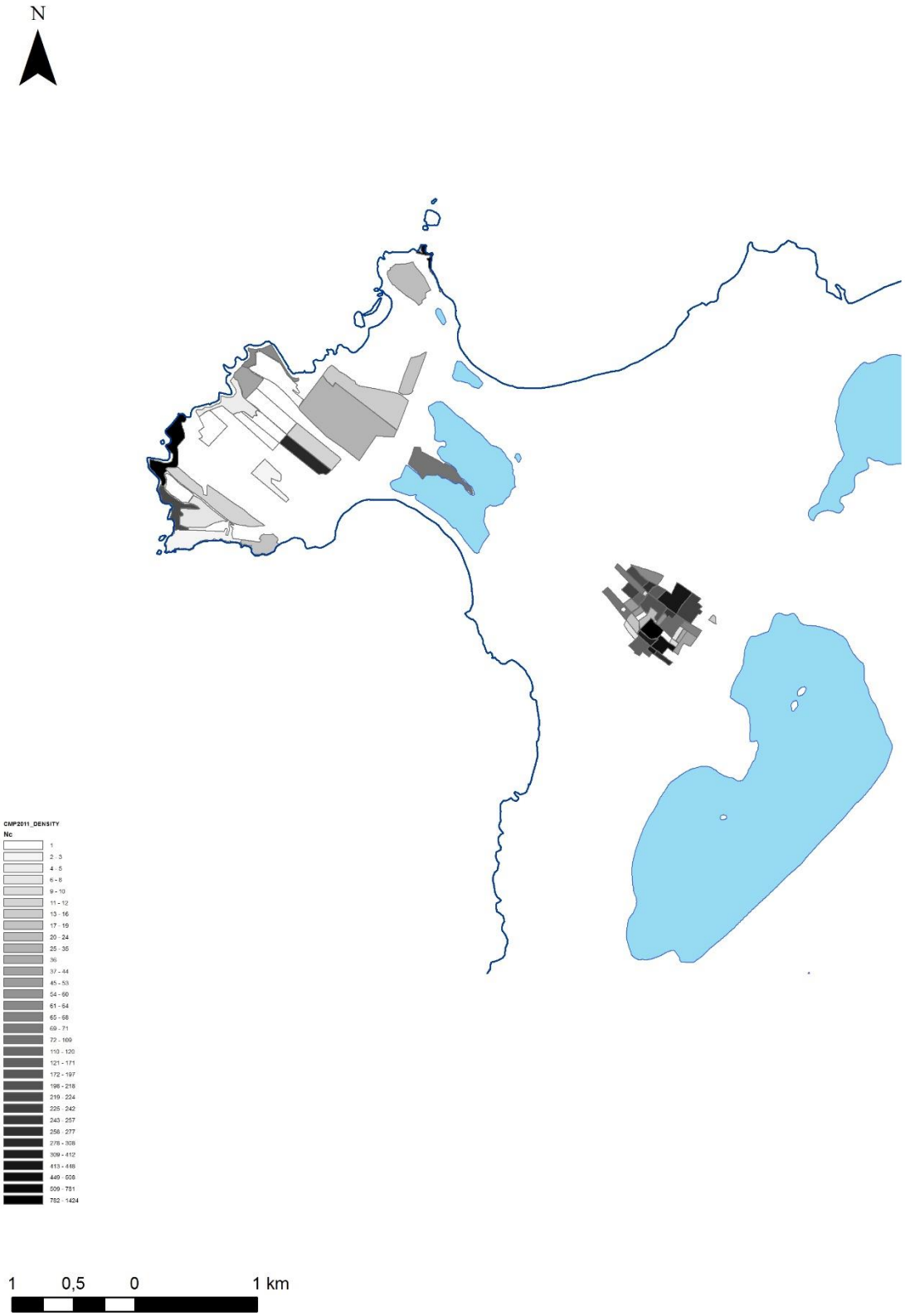

Fig. 1 - Distribution map – Ceramic fragments per Territorial Unit.

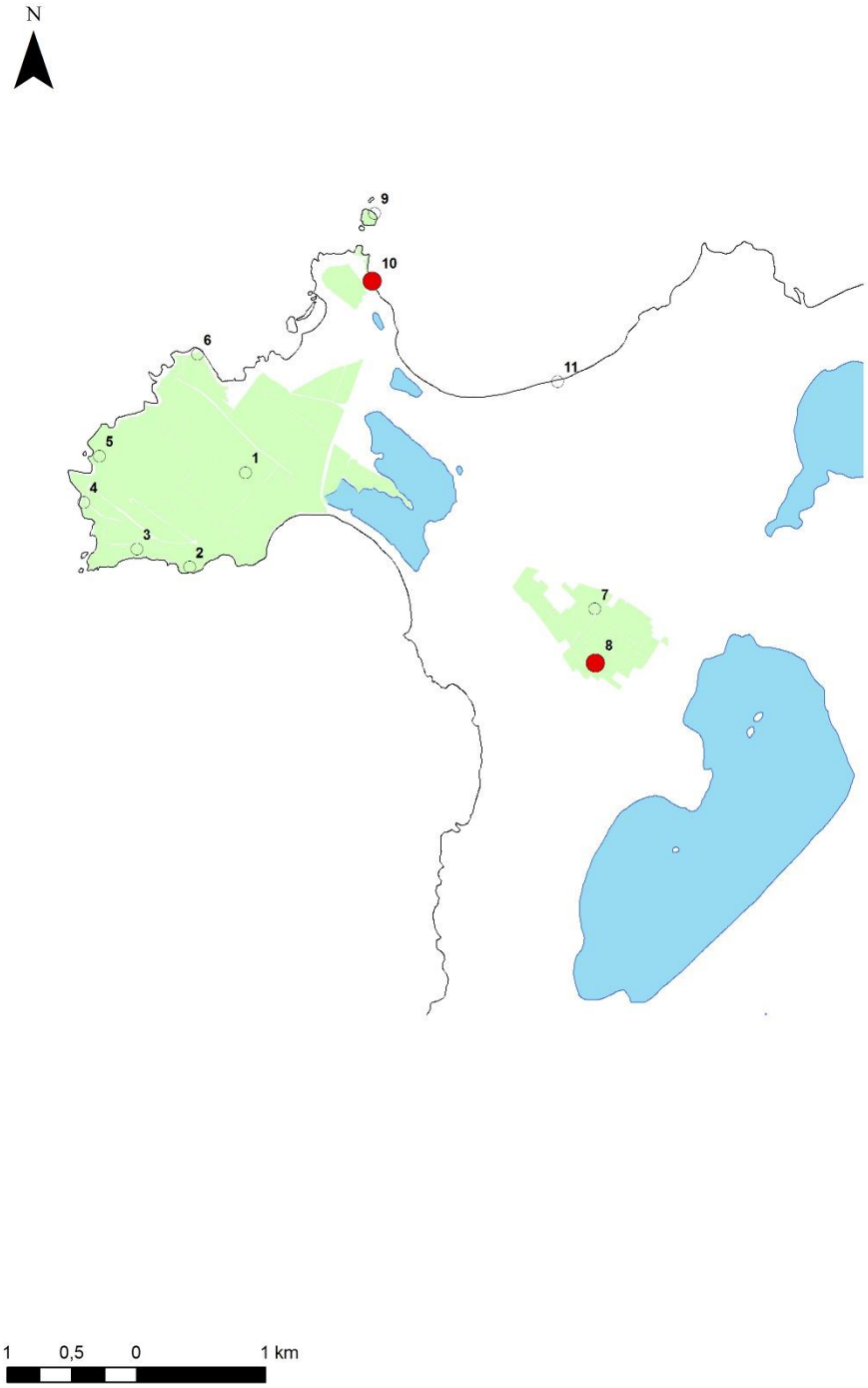

Fig. 2 - Sites investigated in 2011 campaign, in red Monte Benei (8) and Su Pallosu (10).

CLASSIFICATION AND CHRONOLOGICAL ATTRIBUTION

For the classification of the pottery we used morpho-functional categories identified during the study of prehistoric ceramics of the Bronze Age settlement of Sa Osa by Castangia (2010), to which we added new elements when needed:

1. Pottery
    1. Pans and Trays
        1. Pans
        2. Trays
    2. Bowls
        1. Shallow bowls
        2. Medium bowls
        3. Deep bowls
        4. Internally convex bowls
        5. Closing-walls bowls
        6. Small bowls (diam<9 cm)
        7. Big bowls
    3. Basket-like vessels
    4. Drawing cups
    5. Cups and Beakers
        1. Cups
        2. Beakers
    6. Footed cups
    7. Cooking reversed bowls
    8. Liquid-related pots
        1. Jugs
        2. Amphorae
        3. Flasks, Bottles
    9. Jars
        1. Without neck
            1. Cilindric shape/Ovoidal
            2. Bellied shape
            3. Globular shape

        2. Necked
            1. Ovoidal shape
            2. Bellied shape
            3. Globular shape
            4. Flask-shaped vessels
            5. Pluri-handled

    Pixes
    Dolii

2. Other ceramic objects
    1. Lids
    2. Lamps
    3. Burners

4. Spindle whorls
5. Fishnet weights
6. Loom weights
7. Firedogs
8. Pintadere
9. Tokens

Five fragments belong to the category of pans and trays (Fig. 3). Among them, only one is classifiable as a tray due to the greater height of the wall, the others are very low pans. Seven fragments belong to various types of bowls (Fig. 4), generally hemisphericaland more or less deep, while another seven belong to basket-like vessels (Figs. 15, 16). Lids are the most represented category with 40 units (Figs. 8, 9, 10, 11, 13), followed by jars with 20 specimens (Figs. 5, 6, 13). Among these, 2 are flask-shaped vessels (Fig. 13), 2 are pluri-handled necked jars (Fig. 7), 3 bellied-shaped jarsand 13 ovoid-shaped ones (Figs. 5, 6). One fragment belongs to a handled cup and 2 to canaliculated handles (Fig. 7).

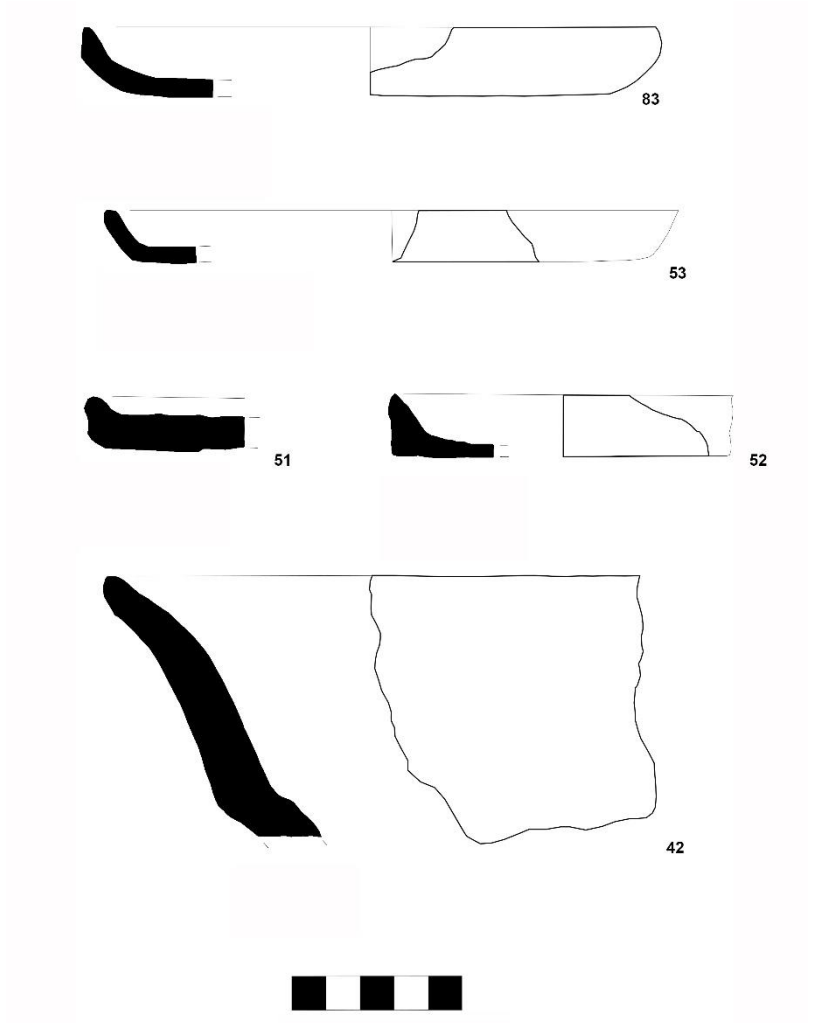

Fig. 3 - Pans and trays from Su Pallosu.

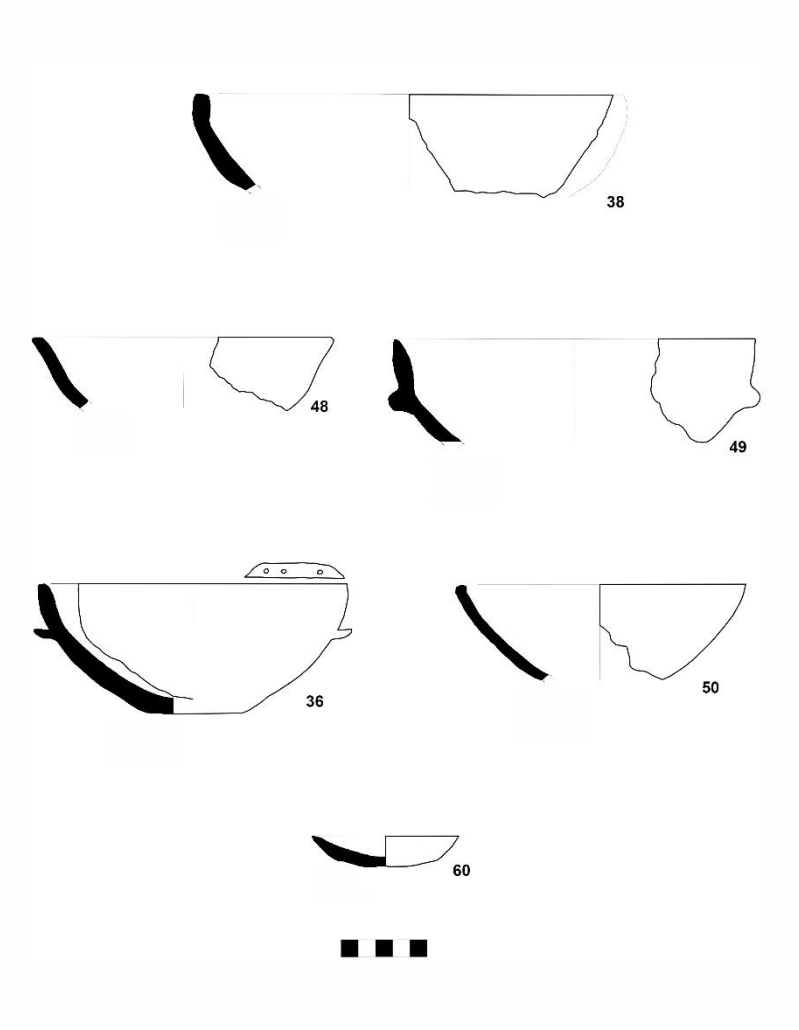

Fig. 4 - Bowls from Su Pallosu.

It was not possible to reconstruct the diameter of all the original vessels, except for the lids. A quick look at the values in this category clearly shows that four dimensional clusters can be identified, with average values of 7.5 cm, 8.5 cm, 10.5 cm and 11.2 cm. They probably correspond to similar clusters of containers which were sealed by these lids. The excavation of the site of Su Pallosu in 2007 showed that such containers were pluri-handled necked jars (Castangia 2009 and 2011).

In order to provide a chronological attribution of the fragments, reference was made to the most recent typological classifications by Basoli et al. (1999) for the Neolithic pottery and Campus and Leonelli (2000) for Bronze Age ceramics. An initial comparison with general trends was supplemented by further comparisons with specific sites and contexts. Overall, the following chronological phases have been identified: Final Neolithic Ozieri tradition (3800-3300 BC), Early Bronze Age or Bonnannaro tradition (EBA - 2000-1800 BC), Middle Bronze Age (MBA - 1700- 1450 BC) and Recent Bronze Age (RBA - 1450 - 1250 BC).

Most of the fragments belong to the sub-phases 2 and 3 of the Middle Bronze Age (see Depalmas 2009 for a definition of sub-phases in Bronze Age Sardinia). They come entirely from the area of Su Pallosu. Ten fragments can be ascribed to ovoidal or bellied jars with a flat rim and a slight protrusion on the external wall (Figs. 5, 6). They are comparable with materials

from the protonuraghe Fruscos of Paulilatino (Demurtas and Demurtas 1984), the site of Talei at Sorgono (Fadda 1996), the nuraghe and settlement of Noeddos at Mara (Trump 1990), the nuraghi Chessedu of Uri (Ferrarese Ceruti 1981) and Santu Antine of Torralba (Bafico and Rossi 1988), the layer B of the exedra of the tomb of Monte de s'Ape at Olbia (Castaldi 1968), the exedra of the tomb of Oridda at Sennori (Castaldi 1969), the tombs of Palatu of Birori (Moravetti 1985), Thomes of Dorgali (Moravetti 1980) and su Coddu Vecchiu of Arzachena (Castaldi 1969). The two big jar bottoms n. 140 e 141 (Fig. 12) are likely to belong to vessels of this very typology. Finally, the slighlty different n. 44 (Fig. 6), a fragment of a jar with a thickened rim externally concave, is comparable with specimens from the village of Santa Maria su Claru of Nuraxinieddu dating to the same phase (Sebis 1995).

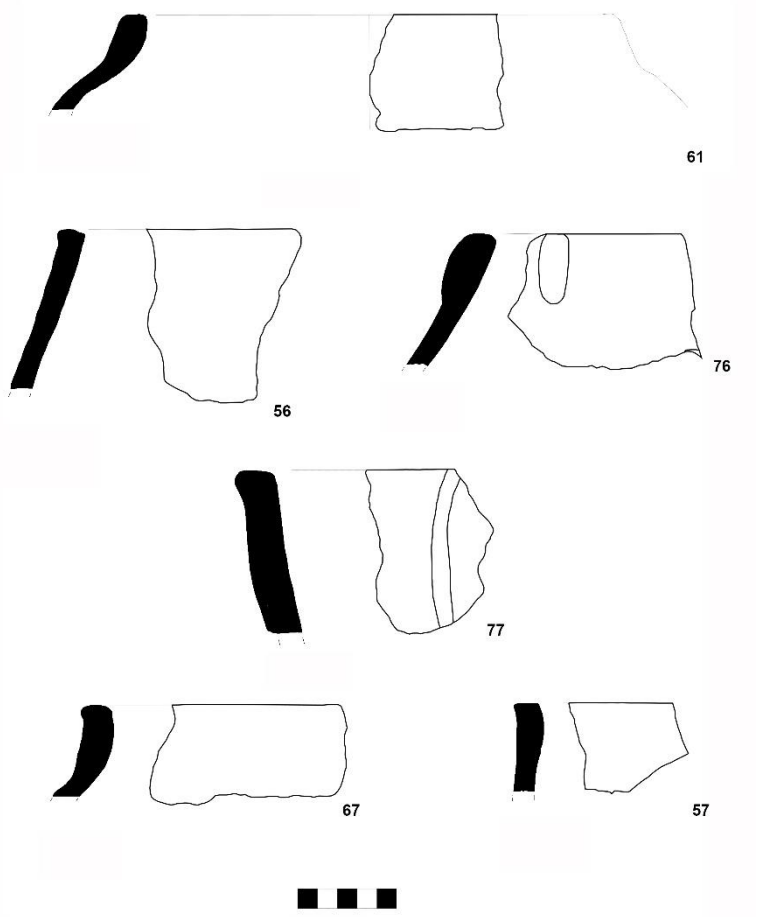

Fig. 5 - Jars from Su Pallosu 1/2.

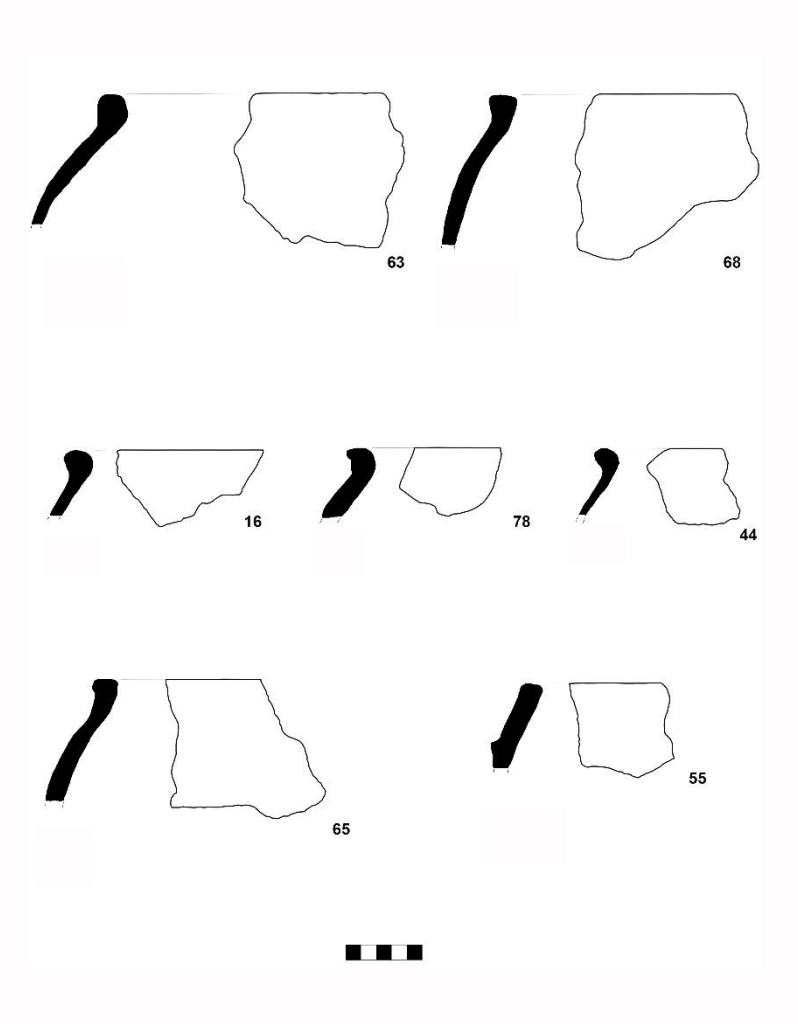

Fig. 6 - Jars from Su Pallosu 2/2.

The two small trays 51 and 53, the pan n. 42 and the bowl/pan n. 83 (Fig. 3) are also attributable to this same phase (in terms of materials) found in the sites Palatu of Birori, Noeddos of Mara and from the nuraghe Santa Barbara of Macomer (Moravetti 1990). The two fragments 36 and 38 can be attributed to later phases of the Middle Bronze Age, due to comparisons with materials found at Santa Maria su Claru of Nuraxinieddu (Sebis 1995), Baumendula of Villaurbana (Santoni 1992), Su Mulinu of Villanovafranca (Ugas 1987), Santa Maria is Aquas of Sardara (Usai 1988), and San Gemiliano of Sestu (Forci and Relli 1996). The same is true for the necked jar n. 74 (Fig. 7), which is fairly generic and not easy to place in a precise chronological framework.

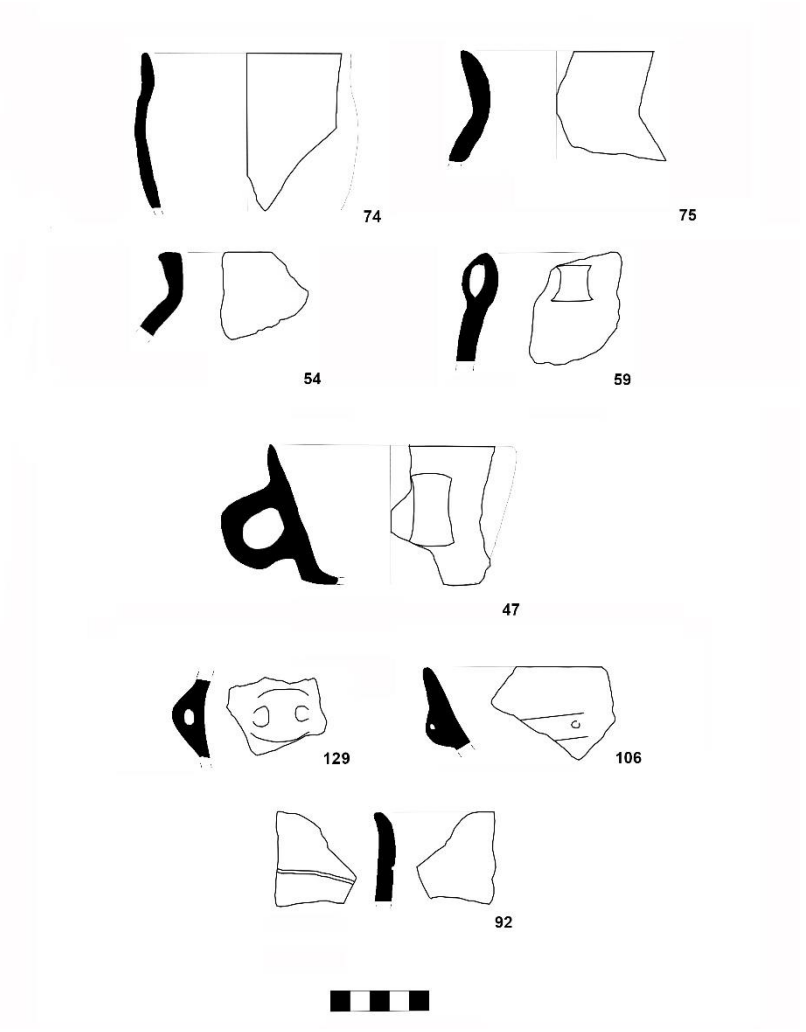

Fig. 7 - Necked Jars (54, 59, 74, 75), cup (47), handles (106, 123), basket-like vessels (92, 106).

The most represented morphological and functional category is the lid (40 units, Figs. 8,9,10,11,13), all the exemplars of which come from the site of Su Pallosu. The ceramic lidsare characteristic of a limited number of sites of Bronze and Iron AgeSardinia, in particular of deposits interpreted as 'votive'or cultural and dating back to the Final Bronze Age (Campus and Leonelli 2000). In the case of Su Pallosu, the excavation data for 2007 show that these materials can be attributed instead to the Recent Bronze Age phase, and that they were linked to a specific typology of vessel, the so-called pluri-handled necked jars (Castangia 2009, 2011). Two fragments of these – n. 59 and 75 (Fig. 7) – were also collected from the surface during the survey in September. The physical association between little jars and lids was documented during the excavation of 2007 at Su Pallosu, when a lid was found in the original position lying on the edge of one of the jars (Castangia 2009: 139).

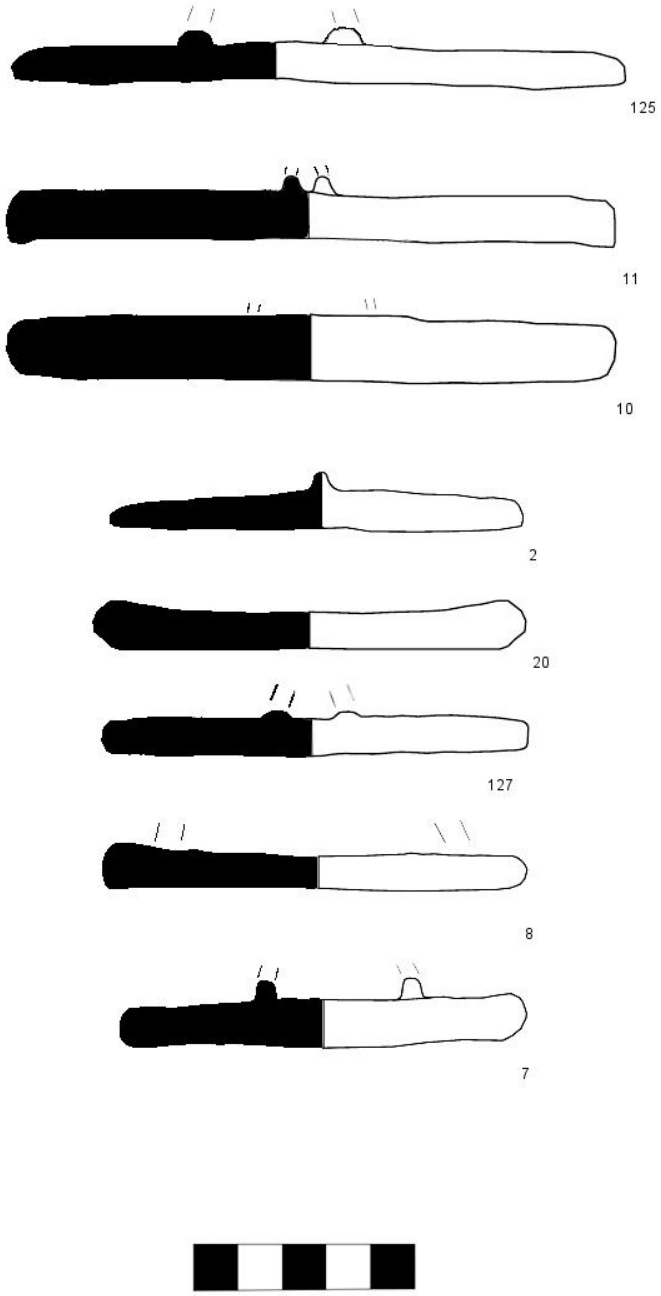

Fig. 8 - Lids from Su Pallosu 1/4.

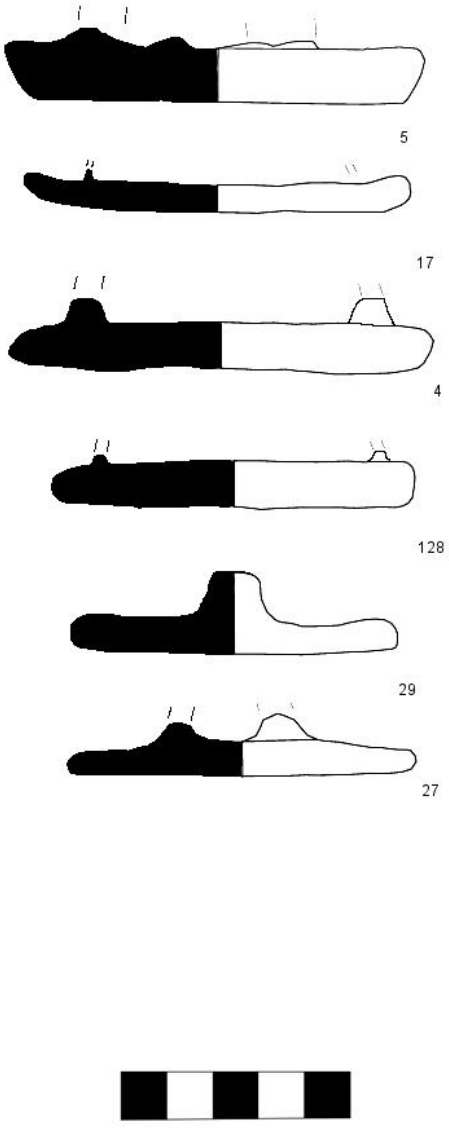

Fig. 9 - Lids from Su Pallosu 2/4.

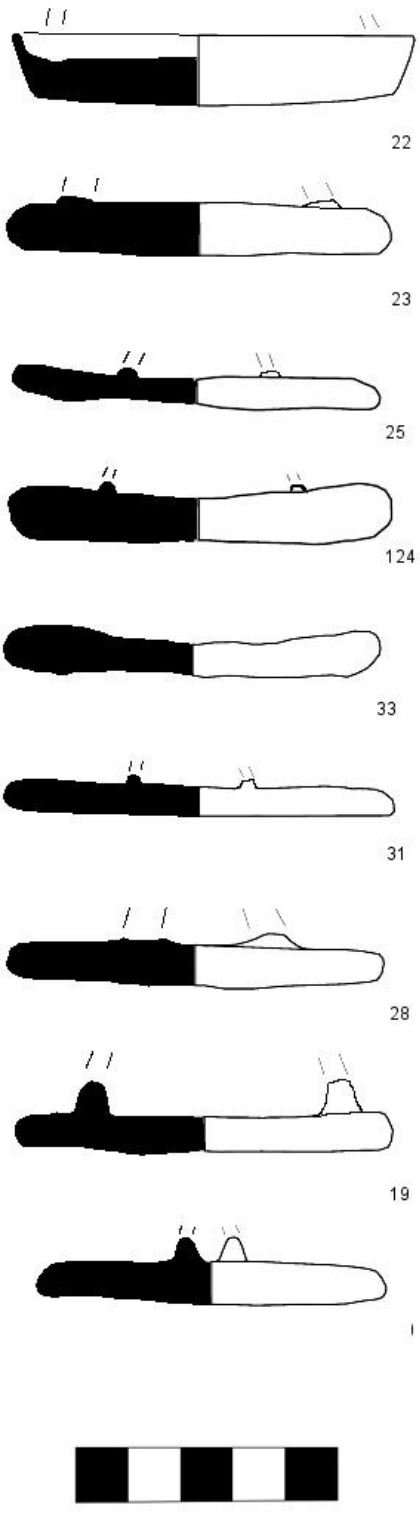

Fig. 10 - Lids from Su Pallosu 3/4.

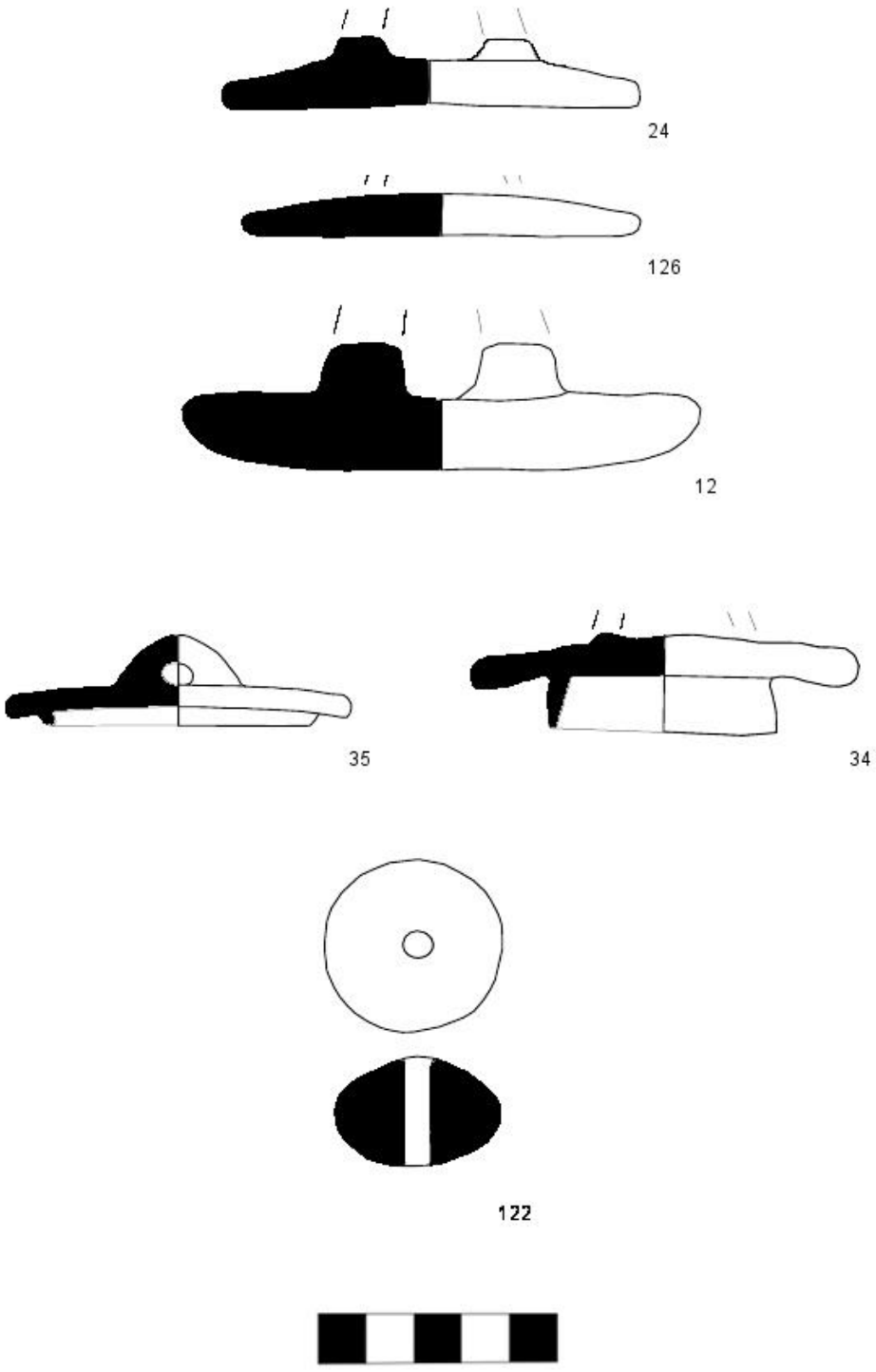

Fig. 11 - Lids from Su Pallosu 4/4 and spindle whorl from Monte Benei (122).

Fig. 12 - Decorated fragment (117) and bottoms of large jars (140 and 141) from Su Pallosu.

Fig. 13 - Token from Su Pallosu.

The attribution of the cup n. 47 (Fig. 7) remains dubious, as the most significant comparisons can be found with the type 315.Scod.103 of Campus and Leonelli, dated to the Early Bronze Age/very early Middle Bronze Age, coming from sites such as Mount Baranta of Olmedo - West corridor layer IV (Moravetti 1981), Punta Niedda of Portoscuso (Ferrarese Ceruti 1978) and Santu Antine of Torralba (Bafico and Rossi 1988). The fragment is characterized by a coarse fabric, similar to that of the Middle and Recent Bronze Age, but exhibits a significantly poorer surface treatment and no polishing. The handle is also very rough and asymmetrical. These characteristics would favor an attribution to the Early Bronze Age – Bonnannaro tradition phase A, which is present in the domus de Janas of Sa Rocca Tunda (Stiglitz 2006), a few km to the south-east.

The fragment n. 123 from Su Pallosu (Fig. 13) could conceivably be interpreted as a token, i.e. a ceramic fragment reshaped and reused for purposes related to economic functions or worship.

Examples of this type of reuse come from the village of Sant'Imbenia of Alghero and are currently on display in the windows of the Sanna Museum of Sassari.

Ceramic elements belonging to the final Neolithic – Ozieri – tradition come entirely from the site of Monte Benei (Site 8, see Castangia in this publication) and mostly comprise fragments of decorated basket-like vessels, flask-shaped vessels and hemisphericalbowls. The two handles n. 106 and 129 (Fig. 7), belonging to flask-shaped vessels,are also dated to this phase.

The fragment n. 100 (Fig. 16) decorated with jagged segments, probably belonging to a flask-shaped vessel, is comparable to materials collected during the excavation of the 'hut' 2/1989 of the Neolithic settlement of Cuccuru is Arrius and at the site of San Ciriaco of Terralba, dated to the Ozieri phase (Santoni et al 1997:271, fig. 4, n. 10; ibid p. 229; ibid. pl. 4, n. 6). It also shows similarities to fragments from the site of Perda Lada of San Vero Milis (Cossu 2005-2006, pl. XXXIV), Is Pardinas of Quartu Sant'Elena (Zuncheddu 1996: 17, pl. IV, n. 18-19, table 21., pl. VIII n. 36), Itria of Gesturi (Lilliu et al. 1985:329, n. 257,258), Cuccuru Ambudu of Serramanna (Frau 1991:125, fig. 9, n.1-3; Melis 1997: 16, pl. I, n. 1-2), Craviole Paderi at Sestu (Melis 1995: 37, pl. III, n. 18-20, 23), Cuccuru is Arrius at Cabras (Depalmas 1990: 17, pl. III, n.6-10) and Contraguda at Perfugas (Pitzalis 1989: 82, pl. 1, n.4). The same comparisons apply to the fragment 118 (Fig. 16), which also probably derives from a flask-shaped vessel.

Fig. 14 - Lid from Su Pallosu.

The horizontal incision below the rim of the basket-like vessel fragments n. 90, 104, 115 (Fig. 16), 108, 112 (Fig. 15) is very common in the Neolithic Ozieri tradition, and it can be found – among others – in materials from Perda Lada San Vero Milis (Cossu 2005-2006, pl. XVII, XVIII, XX), Itria of Gesturi (Lilliu et al., 1985: 330, n. 272-277), Cuccuru Ambudu of Serramanna (Melis 1997: 329, n. 1-4; Frau 1991, p. 120, Fig. 4, n. 1, 3-8), Is Pardinas of Quartu Sant'Elena (Zuncheddu 1996:16, pl., n. III. 13 and 14), Craviole Paderi at Sestu (Melis 1995:37, pl. III, n. 1-8), materials from Cuccuru is Arrius in the Falchi Collection at Oristano (Depalmas 1990: 15, pl. I, n. 1-5 and 7).

The external decoration of the fragment 108 (Fig. 15), depicting a spiral formed by a band filled with vertical lines, is comparable with materials from surface collections from Gribaia of Nurachi (Lugliè 1995: 40, fig. 5-6) and Cuccuru Ambudu of Serramanna (Frau 1991: 127, fig.11, n. 10).

The decoration of the fragment 104 (Fig. 15) is,instead, similar to 2 fragments from Cuccuru is Arrius (Santoni 1989: 190, fig. 2., n. 3 and p. 194, fig. 6, n. 2) and from Monte d'Accoddi (Tinè et al. 1989: 34, pl. 6). The fragments n. 104 and 112 (Fig. 15) are also comparable with external decorations consisting of horizontal bands filled with vertical lines from which depart other oblique bands, probably belonging to a spiral pattern present on fragments of basket-like vessels from Biddazzoni Noa of Zeddiani (Sebis 2009: 30, fig. 1), Mar'e Pauli and Gribaia of Nurachi (Lugliè 1995: 41, fig. 3; Lugliè 1995:41, fig. 4), Perda Lada of San Vero Milis (Cossu 2005-2006, pl. XII, n . 1, pi. XIII, n. 8).

The fragment 114 (Fig. 16), given its base, is comparable with two specimens from Perda Lada of San Vero Milis (Cossu 2005-2006, pl. XV, n. 1, pi. XXXIX, n. 4). Finally, the biconical spindle-whorl n. 122 (Fig. 11, 15) is similar to a common type in the context of a Neolithic village of this phase, found in the nearby site of Perda Lada (Cossu 2005-2006, pl. LVII, n. 3-4).

Fig. 15 - Decorated neolithic and spindle whorl from Monte Benei.

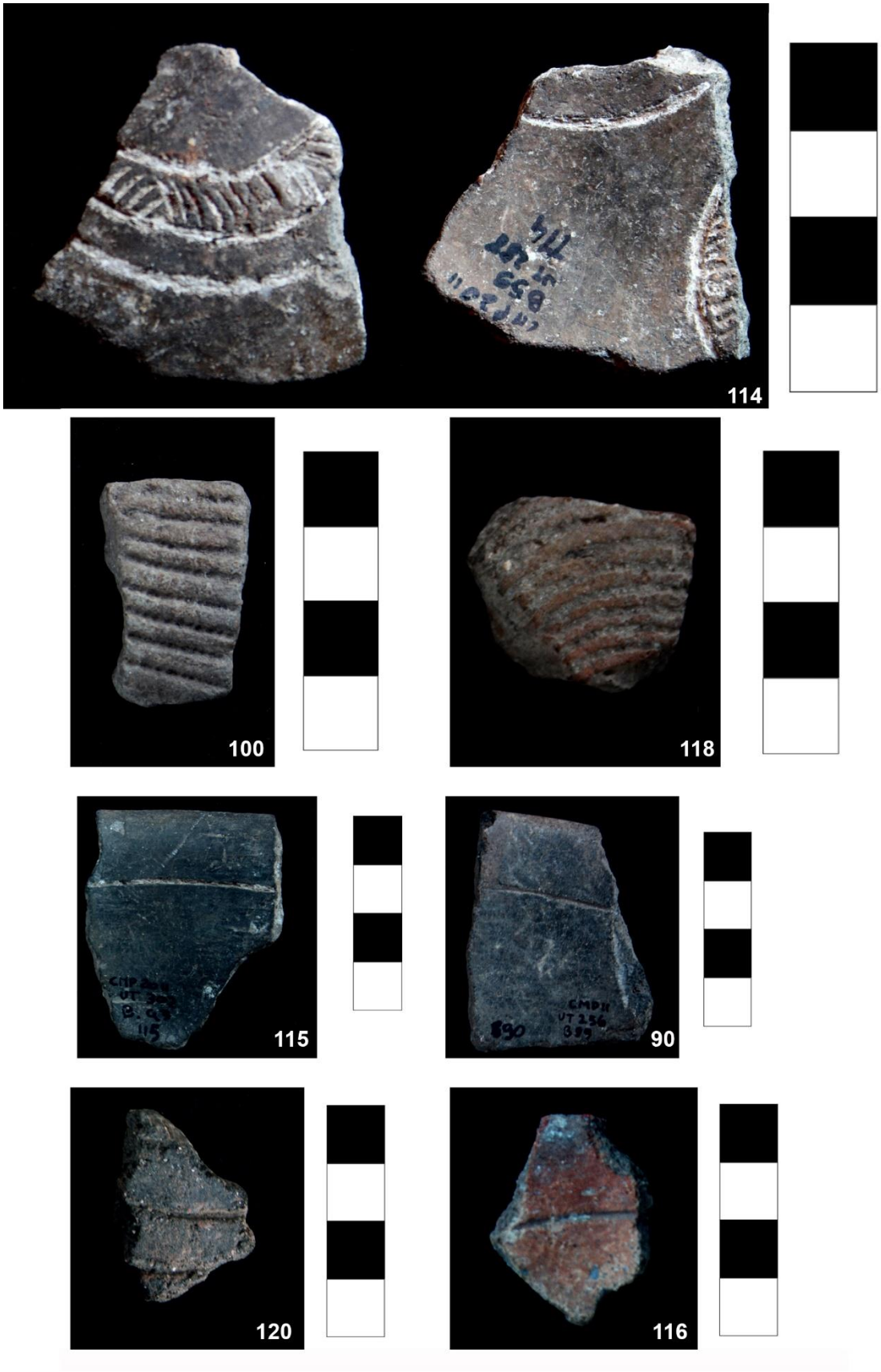

Fig. 16 - Decorated bottom (114), fragments of flask-shaped vessels (100 and 108) and of basket-like ones.

TECHNOLOGY

The firing characteristics of the 86 fragments were determined through an investigation of the colour variation of each fragment on the surface and in its section (Rice 1987: 343-345). Evaluations of this type have proved to be useful in the past, as they agree with the patterns already identified within the production of ceramics in the area of central-western Sardinia from the Neolithic to the Iron Age. This is true in particular for production during the Bronze Age and early Iron Age, in which macroscopic differences in the fabrics as a result of different cooking processes have recently been recognised (Sebis 1998; Castangia 2009, 2010, 2011). In the case of the fragments included in this study, the differences identified in the analysis of the fabrics are most likely connected to chronology

Fabric class 1 (Fig. 17, n. 1)

This fabric is typical of all the fragments attributed to the MBA and RBA phases. It is the same class A as defined by Castangia following the analysis of pottery from the sites of Su Pallosu and Sa Osa (2009 and 2011). The fabric is characterised by a high presence of inclusions and by a considerable heterogeneity in size, ranging from less than a millimeter to up to 3 or 4mm in diameter, showing adisordered and chaotic matrix.

The lithology of the inclusions is also quite heterogeneous: although they are mainly quartz grains, in several cases the pictures taken by the optical microscope at 60 x seem to indicate the presence of chamotte. Firing results indicate a partially oxidizing environment, and there are frequent black spots on the surfaces (fire clouds). Most of the fragments have a blackening of the central part of the section, the so-called black core, due to insufficient firing to complete the oxidization process, in terms of temperature and/or in terms of control of the atmosphere. This effect is often attributed to incomplete combustion of carbonaceous material present in the ceramic and is indicative of a short period of cooking (Shepard 1954:88; Gibson and Woods 1990:49).

External and internal surfaces of the fragments belonging to this fabric have been heavily polished. The colours, both inside and outside, excepting those specimens subjected to the process of smoking, range from red (2.5YR 5/6) to light brown and dark brown (7.5YR 6/4, 7/4, 10 YR 6 / 4). None of the fragments belonging to this class have given any evidence of the use of wheel in their manufacture.

Fabric class 2 (Fig. 17, n. 2)

This fabric is characteristic of all the fragments attributed to the Final Neolithic tradition called Ozieri. The texture is very grainy but the inclusions are more evenly distributed and their size is very similar. It seems that also the lithology of these inclusions - mostly quartz - is sufficiently homogeneous, which may indicate a preparation of some sort. Apparently, no chamotte was used in the fabric. Surfaces were well polished. The firing was carried out in many cases in a reducing environment, in others in a partially oxidizing one and in one case it appears to have been carried out in a fully oxidizing environment (fragment n. 116). The colours, both external and internal, range from red (2.5YR 5/6) to light grey (2.5YR 5/3) and dark (5 YR 4/1).

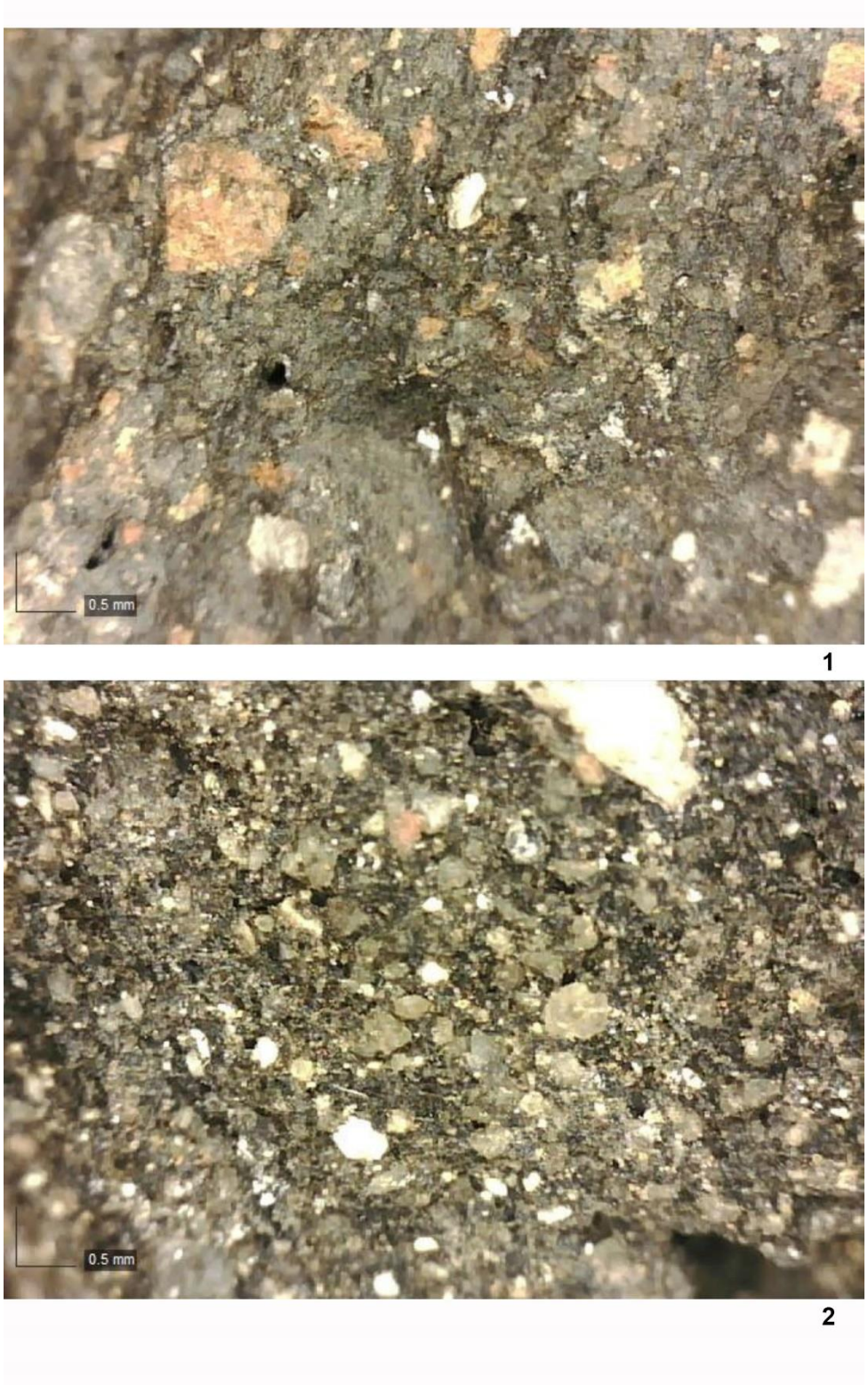

Fig. 17 - Microscope image of fabrics 1(1) and 2(2) – 60X.

CONCLUDING REMARKS

The chrono-typological analysis of ceramics from the first Capo Mannu Project survey campaign clearly indicates the presence of different chronological phases of occupation of the area prior to the 7th century BC: Final Neolithic or Ozieri phase, Early, Middle and Recent Bronze Age. This confirms old reports, such as those concerning the presence of a Neolithic settlement on the hill of Monte Benei, but it also raises some important questions that will be investigated in the next campaigns.

First, the identification of material dated to the Early Bronze Age in the area is extremely important, as this type of evidence is usually rare and difficult to detect, especially in contexts which are not clearly funerary in nature. In fact these artifacts, belonging to the Bonnannaro tradition, usually come from reused burial sites, especially cut-rock tombs called domus de Janas, as observed in the same territory of Capo Mannu o nthe site of Sa Rocca Tunda, where a set of necked jars and other types of containers were found some decades ago (Stiglitz 2006). During the 2012 campaign we shall try to contextualise most of these situations in their actual setting.

Second, it is noteworthy that within the 2011 collections from the site of Su Pallosu we have been able to identify several ceramic fragments dated to the Middle Bronze Age 2 phase (1600 - 1500 BC). During the 2007 excavation no artifacts dating to that phase were found (Castangia 2009 and 2011). This is likely to indicate the presence of a more complex articulation of the site than previously assumed, especially in a topographical-horizontal sense. The MBA2 materials collected in 2011 also appear somewhat different from those collected on the 2007excavation: the different categories appear to refer more to a domestic environment rather than to a votive deposit, with a prevalence of large-bellied ovoid jars without a neck. Indeed, this particular phase is associated in Oristano and Sinis to more or less seasonal villages, characterised by sunken structures (see Pau and Sebis in this volume). The excavation activities in the area will be resumed as soon as possible in order to better define the complex nature of the site. It is worth mentioning that a number of lids and pluri-handled jars, related to the 'votive deposit' context, were collected within the 2011 materials.

Finally, in the area of Monte Benei it is notable that the so-called ascia scheggioide, a particular category of axe realised in trachytic phonolite, so far thought to appear during the Eneolithic (Caruso et al. this volume), is associated in the surface collections with a ceramic context fully Neolithic – without significant exceptions. There were no further clues indicative of an Eneolithic-phase occupation of the site, and the evidence from the site appears to be rather homogeneous and entirely attributable to the Ozieri phase (3800 - 3300 BC).

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