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Across the sea – Cultural interactions in Sardinia. Imported and local coarse and cooking wares between Middle Imperial Age and Late Antiquity. The case study of Nora.

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Abstract: The analysis of the stratigraphic contexts of the Mediterranean, relating to the centuries between the Middle Imperial Age and the period defined as Late Antiquity, is a particularly interesting and stimulating subject. In recent times, this topic has seen a proliferation of studies by archaeologists in different settings. As far as the most peripheral territories of the Roman Empire are concerned, the social and economic dynamics linked to the production and importation of goods, such as pottery and other household objects, can be decoded through the analysis of these urban and rural contexts. Among the features that certainly attract more interest, it is worth mentioning here the coexistence of coarse and cooking pottery of local production with products imported by sea and by land from other territories. This work aims to analyze some of these aspects, focusing on some stratigraphic contexts relating to the 3rd-8th century A.D. of the *municipium* of Nora (South Sardinia).

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1. TOPOGRAPHIC SURVEY OF THE SITE

The remains of the ancient settlement of the Punic-Roman city of Nora are located on the southern coast of Sardinia (38°59'04.87"N 9°00'57.1"E / 38.984685°N) (fig. 1), on a small promontory which is accessed through a narrow isthmus. Nora is mentioned by ancient authors as the oldest town founded in Sardinia by the Phoenicians or Levantines¹, whose presence can be identified in some holes of huts and imported pottery dating from the late 7th century to the beginning of the 6th century BC, located near the Forum of the Roman city². The most ancient phases are also testified by the Phoenician cremation necropolis near the isthmus³. During the rule of Carthage, Nora was transformed from a simple coastal settlement into a real urban center, probably the main one in Sardinia. The evolution of the ancient city is confirmed by its role after the conquest of the island by Rome and the subsequent foundation of the *provincia Sardinia et Corsica* (227 BC). The urban center of Nora, *caput viae* of the southern road network and

¹ Paus. 9, 17, 5; Solin. 4, 2.

² BONETTO 2009.

³ BONETTO *et alii* 2017.

perhaps a governor seat until its transfer to *Carales* (Cagliari), was characterized, between the last centuries of the Republic and the first years of the Imperial Age, by a remarkable urban expansion. In the Middle Imperial Age, the city underwent important urban transformations, which involved the construction of road network and the installation of monuments and infrastructures⁴. At the end of the 4th century, while some areas such as the Forum and the theatre seemed to have lost their original function, other parts of the city underwent important renovations and expansions, as in the case of thermal baths, the main streets and the aqueduct, which was restored in the mid-5th century AD, as confirmed by an epigraphic document⁵. The following centuries were characterized by a progressive decline of the city, which lost its importance and was finally abandoned around the 8th century AD. In fact, in the 7th century, Nora is already mentioned by literary sources as a simple *praesidium*⁶.

Starting from 2013, stratigraphic surveys have been carried out in the area located north/north-west of the hill known as Colle di Tanit (fig. 2), in order to acquire new data on the phases of life in the urban center⁷. It is an area sector that was previously occupied by an Italian Navy base and characterized by a slight slope that has the point of maximum elevation in the south-east portion. This is where a major building complex, the northern portion of a residential area that was already identified to the south and named Kasbah by G. Pesce in the 1950s, was spotted (fig. 2)⁸. This complex

⁴ In particular, between the end of the 2nd and the beginning of the 3rd century AD, the town was equipped with an aqueduct (PAOLETTI 1997, pp. 159-164; GHIOTTO 2004, pp. 146-148).

⁵ CIL X, 2, 7542 = ILS, 5790 = CLE, 290.

⁶ Ravenn. 5, 26.

⁷ ISTHMOS Project, Università degli Studi di Cagliari. Director: prof. Marco Giuman.

⁸ See GHIOTTO 2004, pp. 157-165 with previous bibliography.

consists of structures divided into small rooms and an articulated system of distribution, conservation and water disposal⁹. Although the general structure is attributed to the Punic age, the structures that are currently visible have been generically framed in Roman and Late Antique ages¹⁰. Part of the building block overlooks the eastern side of the E-F road, whose route continues northwards in the direction of the former military area. In this sector, the investigations carried out by the University of Cagliari since 2013 have highlighted a new section of the paved road E-F¹¹, to the east of which a further complex has been identified.

The building complex (fig. 3), highlighted in the southern part of the former military area, is divided into two sectors by a secondary road (Delta) that separates the part located further upstream (Alfa) from the one (Gamma) that reaches the E-F (Beta) road below¹². In fact, the complex follows the natural course of the slope with a variation in altitude, ranging from 11.50 m of the sector located at the highest altimetric level up to about 8 m above sea level of the road (fig. 4). The latter is made of large basements of local purple andesite, with a slight slope in a southerly direction and two wells for the canalization of the run-off water. The western and eastern sides of the road are characterized by the presence of *umbones* made of large rectangular elongated blocks, also made of andesite. The stretch of the road does not show chariot ruts and is part of the principal road network of Nora, which runs through the main spaces of the Roman city and whose construction is generally dated back to the Severian age¹³. This stretch of

⁹ On this topic, see BEJOR 1992; GHIOTTO 2004, pp. 158-159; CESPA 2018.

¹⁰ See GHIOTTO 2004, p.158.

¹¹ LANTERI 2016b.

¹² CARBONI, CRUCCAS 2017, pp. 5-10.

¹³ LANTERI 2016b.

road shows a narrowing in a southerly direction, confirming what has already been attested in other sectors of the city, with portions of the network showing continuous variations in width. These narrowing and widening seem to show an adaptation of the road system of the Imperial Age to the previous structures and urban conformation¹⁴.

E.C.

2. THE SOUTHERN SECTOR OF THE FORMER MILITARY AREA OF NORA

The stratigraphic contexts of the sector located at the highest altimetric position (Alfa) (fig. 5) made it possible to identify a first chronological phase framed in the late Republican age, a period in which the area had to be configured as one large open space. In this phase there were already several cuts made in the rocky shoal of andesite, perhaps pertinent to water channels, as well as the remains of a small basin, referable based on the materials found in the upper layers to a period between the late Punic and Republican ages¹⁵. Another channel that was made up of reused walls of amphorae of Punic tradition of late Republican age, located in the westernmost part and characterized by a north-west/south-east orientation, can also be placed in one of the first phases of use of the area. This structure is connected to the mouth of a well/tank. Towards the last decades of the 1st

¹⁴ A summary of these aspects in BONETTO 2003a.

¹⁵ Mostly, pottery from the Campania area, such as the so-called *pompejanisch-roten Platten* and specimens of large pans with “orlo bifido” rim and internal groove in correspondence with the join with the flat bottom, which is characterised by a slightly visible external step. Another fragmentary but fully recomposed exemplar shows the *burnished slip* on the outer wall, as evidenced by some specimens coming from the Vesuvian area. On this context, see CARBONI, CRUCCAS 2018.

century AD the space located in the highest altimetric sector was divided into two sectors by a wall, thus creating two distinct spaces (Alfa and Delta). At a later stage, this area was affected by the construction of a partition wall. At the same time, in the northernmost part of the area, an earthen pit was created (fig. 6), the bottom of which was made up of the natural rocky bank and from the filling of which came large quantities of osteological and ceramic material¹⁶, as well as several examples of votive statuettes¹⁷, perhaps referable to a nearby sacred area¹⁸. The chronology of the materials coming from the pit dates to a period that does not go beyond the average Imperial Age, with a concentration of finds that can be framed between the 1st century AD and the first half of the 2nd century AD.

After this arrangement of the area, a *cocciopesto* pavement was created, of which some parts have been preserved. In the final phases of the area's life, the sector continued to be used presumably for craftsmanship activities, as indicated by the discovery of a channel and a pit probably linked to the working of small metals, an interpretation also derived from the presence of metalworking debris and firing clay conglomerates (fig. 7)¹⁹.

The adjacent area to the west-side (Delta) continues to be still used in the Middle Imperial Age, probably as a secondary way of transition, a sort of *ambitus*. Under the *cocciopesto* floor, layers of soil have come to light, with an abundant quantity of pottery that can be framed between the end of the 1st century AD and the Middle Imperial age.

¹⁶ ANGIOLILLO *et alii* 2016, pp. 29-80.

¹⁷ On this context, see CARBONI 2016, CARBONI, CRUCCAS 2019.

¹⁸ CARBONI *et alii* 2014, p. 7.

¹⁹ On this topic, see CARBONI *et alii* 2014, pp. 4-5, CARBONI, CRUCCAS 2016, p. 22.

A terracing wall separates the *ambitus* on the western side from a building nucleus (Area Gamma) articulated in different rooms, of which three (A, B, C), contiguous and arranged along an east-west axis, have been excavated so far. Of these sectors, only the phases of use between the 3rd and 6th centuries AD are attested²⁰. The only room in which there is evidence of more ancient levels of occupation is the one called A (fig. 8). The room is quadrangular in shape and had two levels of occupation referable to a period chronologically framed by the Middle Imperial Age. The oldest phase is related to its use with the entrance on the western side, which connected the room with a courtyard probably used for craftsmanship activities. In this space was created a hypogeic room, which could have served as an environment for the storage of supplies. The underground room, called G (fig. 9), has a pseudo-elliptical shape, with the walls covered with three different layers of plastering. The well-preserved bottom is made of cocciopesto and has a curb that runs along the entire perimeter, perhaps functional to the initial use of the room as a cistern. The ceramic materials found in the filling soil make it possible to set its abandonment around the 6th century AD²¹. In this period, the entrance of the underground space is covered by a partition wall, which serves as the northern wall of room B. To this first life phase of the room belongs a beaten-earth floor, partially preserved, framed by the first half of the 2nd century AD. Among the artefacts coming from the layers of leveling underneath, there is a group of statuettes bearing the same iconography.

²⁰ CARBONI, CRUCCAS 2017.

²¹ See CARBONI, CRUCCAS 2017, p. 8.

At a later phase, the western entrance seems to be closed off and the environment probably exploited as a partially underground space with an upper floor, as it is attested in the Mediterranean area, with particular attention to North Africa²². In support of this hypothesis, the presence of some saved spaces with a quadrangular section obtained in the northern wall, complete for a maximum height of about 1.20 m and a hole in the floor, should be noted, probably related to a wooden structure that was to allow access to the upper floors.

In the remaining rooms (B, C) there are only documented phases of use that can be traced back to Late Antiquity, as attested by the discovery of numerous ceramic productions, among which the presence of “ceramica fiammata”, ribbed jugs and ARS D. With regard to room C, connected to room B through a threshold created in the southern part of the relative eastern wall, it was possible to identify two different construction phases. The oldest is recognizable in a portion of the beaten floor and plaster that covered a residual portion of the wall, which was then levelled. The upper part of the elevation of the southern wall, which is only partially preserved, can be traced back to the second phase of life. Remains of the latter, consisting of fictile slabs, can still be found *in situ* in the south-west corner of the room, below two foreparts that are perpendicular to the wall that closes the room on the western side, and below a flat quadrangular lithic block, located in the central-eastern portion of the room, on which a fragmentary column with a molded base rests (fig. 10). An interesting aspect is the condition in which the portion of the column was found, which appears to be still in its original position on the pavement. This

²² On this topic, see BONETTO 2003b.

consideration, together with other elements that can be deduced from the stratigraphic context, has led to the hypothesis of the architectural element being re-used as a small altar²³.

The building complex (Alfa-Delta-Gamma) seems to extend, as the remains suggest, in a northerly direction, where a system of two communicating tanks (Zeta) is visible at a distance of about 20 meters²⁴. These are two cisterns covered with several layers of hydraulic plaster, with the walls connected to the bottom by a kerb that runs continuously along the entire inner perimeter. The first is oriented with the long side in a north-south direction, with an opening in the northern part that acts as a connection with the other part, arranged in an east-west orientation. The stratigraphic investigations have made it possible to identify ceramic materials that can be framed between the 3rd and 5th centuries AD.

R.C.

3. THE CERAMIC DATA

In these centuries, the cultural and commercial relationship with the African basin is confirmed by the preponderant presence of Roman North African Cookware. Local productions remake some of these forms, such as lids and pans, while the casseroles have introflexed edges, an almond-shaped or brim section that will last until the Late Antique Age²⁵. From the 5th century, therefore, there was a change in the productive and commercial structure of Mediterranean trade: in the areas investigated further

²³ See CARBONI, CRUCCAS 2017, pp. 9-10.

²⁴ On this context, see LANTERI 2016a.

²⁵ CARBONI, CRUCCAS 2018, p. 106. The trend is confirmed by other contexts in Nora: CANEPA 2003, pp. 155-156; BASSOLI *et alii* 2010, pp. 245-246; NERVI 2014, pp. 447-448.

downstream and in the Omega area, this is proved by a decrease in imports of North African Cookware and by the arrival of Pantellerian Ware pottery from the Sicilian area, mainly documented in the context of the 4th and 6th century AD²⁶. The local answer is marked by the kitchen and domestic ware produced and circulated on the island. They are represented by different categories of ceramic production in the so-called “Ceramica comune a linee polite a stecca”²⁷, lids in “Ceramica stampigliata”²⁸ and the handmade pottery, called “Ceramica ad impasto”²⁹.

A context that allows recognizing the vascular associations of cooking and coarse ware in a period of transition between the 5th and 6th centuries is represented by the so-called “Vano G” (fig. 9). It is a cistern probably reused in the Late Antiquity as a space for the storage of supplies. The study of the pottery found inside has permitted us to identify different groups, assorted for their production area and function³⁰.

The North African productions related to cooking ware consist of a few examples of residual fragments dated from the end of the 2nd to the 4th centuries AD, given by the well-known Black Top Ware and “a bande polite”³¹. The shapes, quite repetitive but with differences, are represented by the Hayes 194, 197 and 23 A and B casseroles, the Hayes 181 pan and

²⁶ About the archaeological and archaeometrical investigation of Pantellerian Ware recorded in Cagliari see: CARA, SANGIORGI 2007.

²⁷ For a general overview see: PINNA 2005; PINNA, MARTORELLI 2015, pp. 46-49; SALVI 2010; ALBANESE 2018 (with a focus on other findings from Nora); FLORE 2019.

²⁸ On this topic see: CARA, SANGIORGI 2005-2006; BACCO 2018. Regarding the “Ceramica stampigliata” from Nora see: CARBONI *et alii* 2015, p. 891; CARBONI, CRUCCAS 2018, pp. 106-107, fig. 8.

²⁹ Ceramic evidence from Nora and Sardinia are mentioned in: NERVI 2014, p. 446; PARODI 2018, pp. 128-127.

³⁰ For a detailed analysis of the context and artefacts found, see: NAPOLITANO 2020.

³¹ BONIFAY 2004.

numerous shapes of dishes-lid (Ostia III, 261, Hayes 185 e 196). Among the imported items there is one pan in Pantellerian Ware from the end of the 5th century AD, with curved walls, horizontal ear-shaped handles and burnished surfaces³² (fig. 11.1). In Sardinia, this production is recorded in contexts dating back to the 5th and 6th centuries AD, namely in Nora³³, the area of S. Eulalia and Vico III Lanusei in Cagliari, in Tharros and Porto Torres³⁴.

Many of the remaining products are ascribed to local production: the kitchen and coarse ware are characterized by forms of 5th and 6th centuries AD of handmade pottery crafted by hand wheel³⁵, already known in Nora and other contexts of the island³⁶. In the examined area, they are present in the upper layers of the room-filling. From the bottom of the space, there is also a pan almost entirely reconstructed and presumably locally made, with an enlarged and flattened edge, oblique walls and flat bottom, comparable with examples in Nora and Cagliari from the end of the 4th to the 6th centuries AD³⁷ (fig. 11.2).

The vivacity of local craftsmanship is signified by the development of new functional types due to a change in food type and consumption. An example is the so-called “Ceramica polita a stecca”, according to F. Pinna, a multifunctional ware because of the practical interrelationships between uses for the table, food storage, and cooking³⁸. This vascular production,

³² GUIDUCCI 2003, pp. 62-64, fig. 5, G1.1; BALDASSARRI 2009, p. 96, pl. I, 2.2 c.

³³ BOLZONI 2017, p. 110.

³⁴ SANGIORGI 2005; CARA, SANGIORGI 2007, p. 329.

³⁵ Form CATHMA 1991, nn. 7, 22.

³⁶ PARODI 2018.

³⁷ BASSOLI *et alii* 2010, pp. 246-247, 249, fig. 5,3; CANEPA 2003, p. 147, pls. 40/6, 41/1, T/IIIa and T/IIIb; MAZZOCCHIN 2009, p. 713, fig. 21,9.

³⁸ PINNA, MARTORELLI 2015, pp. 46-49.

well attested in Sardinia from the 4th century AD to the end of the 7th century AD, includes numerous forms, some of which seem to emulate contemporary African products³⁹. Their most marked characteristics are given by the type of fabric, very fine, with tones ranging from pink to red, incorporating quartz and k-feldspar⁴⁰, and by the treatment of the surfaces, often polished and burnished with a stick to obtain linear decorations, organized in wave patterns or circles on different parts of the vases. From vano G come both closed forms, such as jugs with everted rim, globular body e umbonate bottom⁴¹, and open shapes, such as *ollae* and casseroles with various rim shape, applied for both table and kitchen use (figg. 11.3-11.5). Another case is the “Ceramica stampigliata” featured in contexts dated between the 5th and 7-8th century, which, in the former military area of Nora, appears to be testified exclusively by lids of large storage jars (diameter: 22-30 cm) with stamped decorations that show an important derivation and dependence on the figurative repertoire of ARS D and remarkable specimens of zoomorphic decorations⁴². The artefacts concerned do not relate to the filling of vano G, but to a fragment out of context, recovered during the 1950s⁴³ and to others attested at the upper fill levels of the Gamma area⁴⁴. Lids similar in morphological, technological and decorative features were found in the urban context of S. Eulalia

³⁹ FLORE 2019, p. 663.

⁴⁰ PINNA 2005.

⁴¹ NERVI 2016, p. 16, “brocca tipo III”; SALVI 2010, fig. 2, nn. 1-3, 5, 7-9.

⁴² CARBONI, CRUCCAS 2018, pp. 106-107, fig. 8.

⁴³ TRONCHETTI 1988, pp. 260-262, fig. 13.

⁴⁴ CARBONI *et alii* 2015, p. 891; CARBONI, CRUCCAS 2018, pp. 106-107, fig. 8.

(Cagliari): some samples were subjected to archaeometrical analysis, which have confirmed the local/regional origin of the production⁴⁵.

In conclusion, starting from the 4th-5th century AD, in some areas of the Roman city there was a gradual reduction in imports of African cooking pottery and an increase in the handmade and wheel-thrown wares, produced locally. This phenomenon seems to intensify in the following centuries, with a significant decrease in the number of coarse wares imported from the North-African basin compared to the amount of African Red slip Ware and amphoras. However, among these products, an important ceramic indicator found in a context of the Omega area should be noted related to “Calcitic Ware group” from northern Tunisia and made between the 6th and 7th century AD⁴⁶. The progress of these studies has allowed, in the last years, to acquire important information on these ceramic artefacts which were found in different sectors of the urban area and can be interpreted as proof of different phases of economic and social life of the Roman and Late Antique community of Nora.

M.N.

BIBLIOGRAPHY

ALBANESE 2018: L. Albanese, *Ceramica steccata tardo romana dal quartiere nord occidentale di Nora: questioni aperte*, in B.M. Giannattasio (ed.), *La ceramica della Sardegna meridionale. Questioni aperte e nuove prospettive*, Roma-Canterano 2018, pp. 111-122.

BACCO 2018: G. Bacco, *La ceramica stampigliata altomedievale dal nuraghe Sa Jacca di Busachi (OR). Primi dati di stratigrafia*, in R. Cicilloni, M. Perra (eds.),

⁴⁵ CARA, SANGIORGI 2005-2006.

⁴⁶ BONIFAY *et alii* 2002-2003, fig. 1, Forme 2 B “marmites à anses en anneau horizontales”.

Quaderni di Layers 1. Le tracce del passato e l'impronta del presente. Scritti in onore di Giovanni Lilliu, 2018, pp. 309-335.

BALDASSARRI 2009: R. Baldassarri, *Il materiale del carico del relitto: analisi tipologica e quantitativa della ceramica locale da fuoco*, in R. La Rocca, S. Tusa, S. Zangara (eds.), *Il relitto tardo-antico di Scauri a Pantelleria*, Palermo 2009, pp. 91-106.

BASSOLI *et alii* 2010: C. Bassoli, M.A. Cau, G. Montana, S. Santoro, E. Tsantini, *Late Roman Cooking wares from Nora (Sardinia): interim archaeological and archaeometrical study*, in S. Menchelli, S. Santoro, M. Pasquinucci, G. Guiducci (eds.), *LRCW 3. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean*, I, Oxford 2010, pp. 245-259.

BEJOR 1992: G. Bejor, *Nora I. L'abitato romano: distribuzione, cronologie, sviluppi*, in *QuadACagl* 9, 1992, pp. 125-132.

BOLZONI 2017: G. Bolzoni, *Area E, Terme Centrali: alcuni contesti di II sec. d.C. dagli scavi 2014*, in *Quaderni Norensi* 6, 2017, pp. 107-112.

BONETTO 2003a: J. Bonetto, *I sistemi infrastrutturali di Nora romana: la viabilità e il drenaggio delle acque*, in C. Tronchetti (ed.), *Ricerche su Nora II (anni 1990-1998)*, Elmas 2003, pp. 21- 38.

BONETTO 2003b: J. Bonetto, *L'uso del sottosuolo nell'edilizia domestica*, in S. Bullo, F. Ghedini (eds.), *Amplissimae atque ornatissimae domus (Aug., civ., II, 20, 26). L'edilizia residenziale delle città della Tunisia romana*, Roma 2003, pp. 281-297.

BONETTO 2009: J. Bonetto, *L'insediamento di età fenicia, punica e romana repubblicana nell'area del foro*, in J. Bonetto, G. Falezza, A.R. Ghiotto, M. Novello (eds.), *Nora. Il foro romano: storia di un'area urbana dall'età fenicia alla tarda antichità: 1997-2006. I. Lo scavo*, Padova 2009, pp. 39-243.

BONETTO *et alii* 2017: J. Bonetto, I. Sanna, F. Carraro, M.C. Metelli, I. Minella, R. Arcaini, L. Soro, C. Del Vais, S. Fanni, M. Sirigu, C. Congia, C. Lecca, *Nora e il mare. Le indagini nelle aree sommerse e subacquee 2014-2015*, in *Quaderni Norensi* 6, 2017, pp. 201-211.

BONIFAY 2004: M. Bonifay, *Etudes sur la céramique romaine tardive d'Afrique*, Oxford 2004.

BONIFAY *et alii* 2002-2003: M. Bonifay, C. Capelli, S. Polla, *Note de céramologie africaine. Observations archéologiques et archéométriques sur les céramiques modelées du groupe dit «Calcitic ware»*, in *Antiquités africaines* 38-39, 2002-2003 (2005), pp. 431-440.

CANEPA 2003: M. Canepa, *Ceramica comune romana*, in B. M. Giannattasio (ed.), *Nora area C. Scavi 1996-1999*, Genova 2003, pp. 137-202.

CARA, SANGIORGI 2005-2006: S. Cara, S. Sangiorgi, *La ceramica da fuoco proveniente da Sant'Eulalia a Cagliari. Analisi dei coperchi con decorazione*, in *QuadACagl* 22, 2, 2005-2006, pp. 19-45.

CARA, SANGIORGI 2007: S. Cara, S. Sangiorgi, *Ceramica grezza proveniente dalla città di Cagliari (Sardegna - Italia): attestazione di Pantellerian Ware*, in M. Bonifay, J.-C. Trégliat (eds.), *LRCW 2. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean*, Oxford 2007, pp. 329-337.

CARBONI 2016: R. Carboni, *Nora-ex area militare: le terrecotte votive*, in S. Angiolillo, M. Giuman, R. Carboni, E. Cruccas (eds.), *Nora Antiqua. Atti del Convegno di Studi (Cagliari, 3-4 ottobre 2014)*, Perugia 2016, pp. 35-38.

CARBONI 2017: R. Carboni, *Nora, Ex area militare. Settore sud-orientale*, in *Quaderni Norensi* 6, pp. 155-161.

CARBONI *et alii* 2015: R. Carboni, F. Collu, E. Cruccas, M. Vargiu, *Isthmos Project. Indagini archeologiche a Nora (Pula, CA). Campagne 2013-2014*, in *Isole e terraferma nel primo cristianesimo. Identità locale ed interscambi culturali, religiosi e produttivi. Atti XI Congresso Nazionale di Archeologia Cristiana (Cagliari- Sant'Antioco 23-27 settembre 2014)*, II, Cagliari 2015, pp. 889-894.

CARBONI, CRUCCAS 2016: R. Carboni, E. Cruccas, *Indagini archeologiche dell'Università di Cagliari nell'ex area militare di Nora (anno 2014)*, in S. Angiolillo, M. Giuman, R. Carboni, E. Cruccas (eds.), *Nora Antiqua. Atti del Convegno di Studi (Cagliari, 3-4 ottobre 2014)*, Perugia 2016, pp. 21-27.

CARBONI, CRUCCAS 2017: R. Carboni, E. Cruccas, *Indagini archeologiche dell'Università degli Studi di Cagliari a Nora (CA). Progetto Isthmos – Campagne di scavo 2015-2016*, <http://www.fastionline.org/docs/FOLDER-it-2017-373.pdf>.

CARBONI, CRUCCAS 2018: R. Carboni, E. Cruccas, *Spazi urbani e manufatti a Nora tra la tarda età repubblicana e l'VIII secolo d.C.*, in B.M. Giannattasio (ed.), *La ceramica della Sardegna meridionale. Questioni aperte e nuove prospettive*, Roma-Canterano 2018, pp. 99-109.

CARBONI, CRUCCAS 2019: R. Carboni, E. Cruccas, *Manufatti votivi e instrumenta provenienti dalla città punica e romana di Nora (Sardegna). Il caso dell'ex area militare*, in *Mobiliers et sanctuaires dans les provinces romaines occidentales (fin Ier s. av. - Ve s. ap. J-C.)*, Actes des Rencontres internationales Instrumentum (Le Mans, 3-5 juin 2015), Drémil Lafage 2019, pp. 267-285.

CARBONI et alii 2014: R. Carboni, E. Cruccas, L. Lanteri, *Indagini archeologiche dell'Università degli Studi di Cagliari a Nora (CA). Progetto Isthmos - Ricognizione e campagna di scavo 2013*, <http://www.fastionline.org/docs/FOLDER-it-2014-306.pdf>.

CATHMA 1991: *Importation de céramiques communes méditerranéées dans le midi de Gaule (Ve-VIIIe siècle)*, in *A Cêramica medieval no Mediterraneo Occidental. Actas do IV Congresso Internacional*. Lisboa, 16-22 novembro 1987, Lisboa 1991, pp. 27-48.

CESPA 2018: S. Cespa, *Nora. I sistemi di approvvigionamento idrico (Scavi di Nora VII)*, Roma 2018.

FLORE 2019: F. Flore, *Ceramiche polite a stecca*, in R. Martorelli (ed.), *Know the sea to live the sea. Conoscere il mare per vivere il mare. Atti del Convegno (Cagliari – Cittadella dei Musei, Aula Coroneo, 7-9 marzo 2019)*, Perugia 2019, pp. 659-666.

GHIOTTO 2004: A.R. Ghiotto, *L'architettura romana nelle città della Sardegna*, Roma 2004.

GIUMAN, CARBONI 2018: M. Giuman, R. Carboni, *Immagini di argilla. Su una tipologia di statuette provenienti dall'ex area militare di Nora*, in M. Albertocchi,

N. Cucuzza, M.B. Giannattasio (eds.) *Simbolo e gesto. La determinazione di genere nelle statuette fittili del mondo greco*, Quaderni di Archeologia 2, Roma - Canterano 2018, pp. 99-112.

GUIDUCCI 2003: G. Guiducci, *Le forme della Pantellerian Ware*, in S. Santoro Bianchi, G. Guiducci, S. Tusa (eds.), *Pantellerian Ware: Archeologia subacquea e ceramiche da fuoco a Pantelleria*, Palermo 2003, pp. 61-65.

LANTERI 2016a: L. Lanteri, *Nora – ex area militare: la cisterna del settore 59/UT1*, in S. Angiolillo, M. Giuman, R. Carboni, E. Cruccas (eds.), *Nora Antiqua. Atti del Convegno di Studi (Cagliari, 3-4 ottobre 2014)*, Perugia 2016, pp. 51-54.

LANTERI 2016b: L. Lanteri, *Nora – ex area militare: il tratto stradale E-F*, in S. Angiolillo, M. Giuman, R. Carboni, E. Cruccas (eds.), *Nora Antiqua. Atti del Convegno di Studi (Cagliari, 3-4 ottobre 2014)*, Perugia 2016, pp. 55-57.

MAZZOCCHIN 2009: S. Mazzocchin, *La ceramica comune romana*, in J. Bonetto, G. Falezza, A.R. Ghiotto (eds.), *Nora. Il foro romano. Storia di un'area urbana dall'età fenicia alla tarda antichità 1997-2006, II.2. I materiali romani e gli altri reperti*, Padova 2009, pp. 699-731.

NAPOLITANO 2020: M. Napolitano, *Contributo alla conoscenza di Nora in età tardo-antica: il contesto ceramico dell'ambiente ipogeo o "vano G"*, in *ReiCretActa* 46, 2020, pp. 253-260.

NERVI 2014: C. Nervi, *Oltre il mare: influssi africani sulla ceramica comune a Nora (CA, Sud Sardegna) dai Punici all'epoca tardo antica*, in *ReiCretActa* 43, 2014, pp. 443-450.

NERVI 2016: C. Nervi, *Il paesaggio di Nora (Cagliari – Sud Sardegna). Studio dei materiali romani e tardoantichi*, Oxford 2016.

PAOLETTI 1997: S. Paoletti, *Nora V. Soluzioni e tecniche dell'acquedotto romano di Nora*, in *QuadACagl* 14, 1997, pp. 159-164.

PARODI 2018: A. Parodi, *La ceramica d'impasto tarda. Marker di import/ export o marker di tradizione locale?*, in B.M. Giannattasio (ed.), *La ceramica della Sardegna meridionale. Questioni aperte e nuove prospettive*, Roma-Canterano 2018, pp. 123-129.

PINNA 2005: F. Pinna, *Una produzione di ceramica comune nei siti tardo antichi e altomedievali della Sardegna: note sui manufatti decorati a linee polite dallo scavo di Santa Eulalia a Cagliari*, in J.M. Gurt i Esparraguera, J. Buxeda i Garrigós e M.A. Cau Ontiveros (eds.), *LRCW I. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and Archaeometry*, Oxford 2005, pp. 267-283.

PINNA, MARTORELLI 2015: F. Pinna, M. Martorelli, *Dispensa, cucina, mensa: interrelazioni funzionali nell'alto medioevo*, in F.R. Stasolla, G.M. Annoscia (eds.), *La ceramica di Roma e del Lazio in età medievale e moderna. La polifunzionalità nella ceramica medievale. Atti del VII convegno di Studi. Roma – Tolfa, 18-20 maggio 2009*, Roma 2015, pp. 31-65.

POBLOME, MALFITANA, LUND 2014: J. Poblome, D. Malfitana, J. Lund, *It's Complicated... Past Cultural Identity and Plain Broken Pottery*, in *ReiCretActa* 43, 2014, pp. XI-XVII.

SALVI 2010: D. Salvi, *La Campidanese. Ceramica comune da mensa della Sardegna meridionale nei contesti chiusi di età tardoantica della necropoli di Pill'e Matta, Quartucciu*, in S. Menchelli, S. Santoro, M. Pasquinucci, G. Guiducci (eds.), *LRCW 3. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean*, I, Oxford 2010, pp. 235-243.

SANGIORGI 2005: S. Sangiorgi, *La ceramica da fuoco in Sardegna: osservazioni preliminari a partire dai materiali rinvenuti nello scavo di S. Eulalia a Cagliari*, in J.M. Gurt i Esparraguera, J. Buxeda i Garrigós, M.A. Cau Ontiveros (eds.), *LRCW I. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and Archaeometry*, Oxford 2005, pp. 255-266.

TRONCHETTI 1988: C. Tronchetti, *Pula*, in G. Lilliu (ed.), *L'Antiquarium Arborense e i civici musei archeologici della Sardegna*, Sassari 1988, pp. 257-270.



Fig. 1. The peninsula of Nora, South Sardinia (Google Earth).



Fig. 2. Nora, aerial photography of the so-called Colle di Tanit. Green: Excavations of the University of Cagliari. Red: the so-called Alto luogo di Tanit. Yellow: the so-called Kasbah (ISTHMOS Project).



Fig. 3. Nora, aerial photography of the southern area of the former military area: excavations of the University of Cagliari (ISTHMOS Project).



Fig. 4. Nora, the roman road of the Area Beta (ISTHMOS Project).

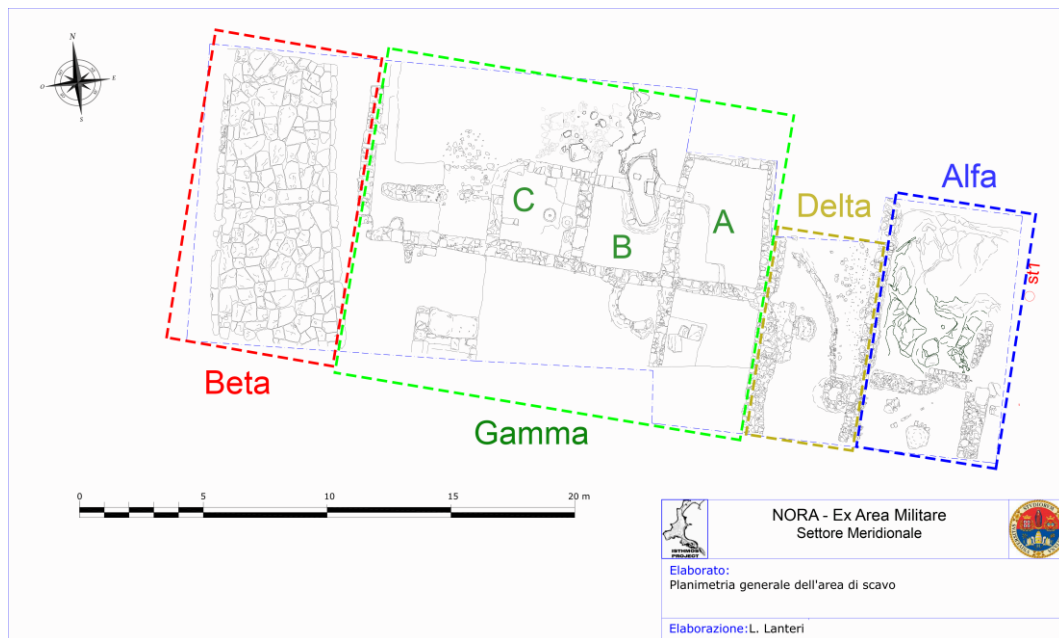


Fig. 5. Nora, the southern area of the former military area: excavations of the University of Cagliari (ISTHMOS Project, graphic design by Luca Lanteri).



Fig. 6. Nora, pit of the Area Alfa (ISTHMOS Project).



Fig. 7. Nora, Area Alfa (ISTHMOS Project).



Fig. 8. Nora, Area Gamma III, Vano A (ISTHMOS Project).



Fig. 9. Nora, Area Gamma, Vano G (ISTHMOS Project).



Fig. 10. Nora, Area Gamma II, Vano C (ISTHMOS Project).

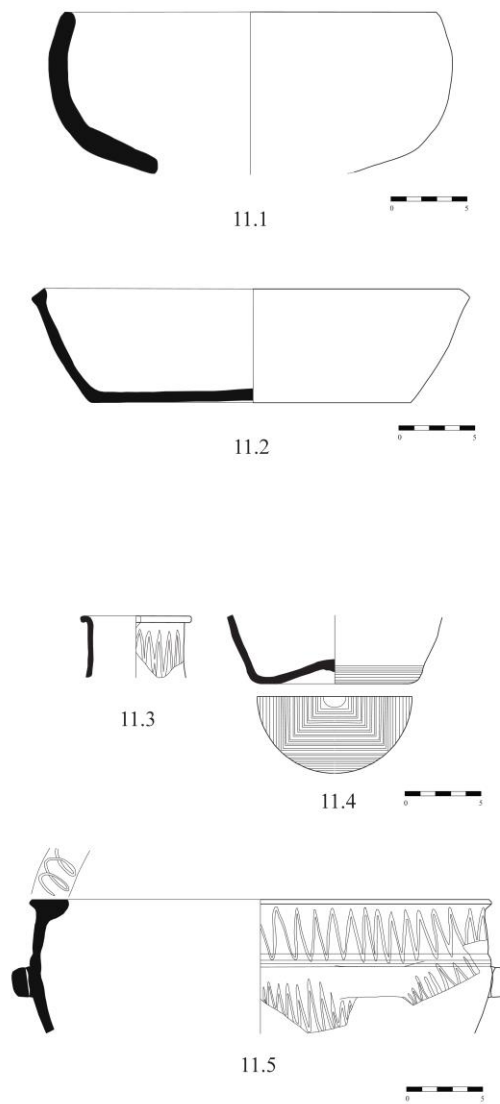


Fig. 11.1. Nora, Vano G. Pantellerian Ware, graphic design by M. Napolitano.

Fig. 11.2. Nora, Vano G. Coarse ware, graphic design by M. Napolitano.

Figg. 11.3, 11.4, 11.5. Nora, Vano G. "Ceramica polita a stecca", graphic design by M. Napolitano.