

The Last Centuries of Nora: a Roman City of Sardinia between the End of the Empire and the Early Middle Ages

Emiliano Cruccas

The Punic-Roman city of Nora is located on the southern coast of Sardinia, not far from Cagliari, the main modern urban centre on the island. The remains of the old centre of Nora are located on a small promontory, which can be accessed through a narrow isthmus (fig. 1). Nora is mentioned in the sources as the oldest town founded by the Phoenicians or Levantines in Sardinia.¹ Important information is provided by a well-known passage from Pausanias,² which mentions the foundation of Nora and the eponymous hero, *Norax*, a version confirmed by Solinus,³ who tells us that the οἰκιστής came from Tartessos. Traces of the oldest settlement can be identified in some post holes of huts and imported ceramics, which date back to the end of the 7th century and the beginning of the 6th century BC, located near the forum of the Roman city,⁴ in addition to the Phoenician cremation necropolis,⁵ located just near the isthmus. The stone stele displayed at the National Archaeological Museum in Cagliari, a text interpreted as relating to the foundation of a temple or a military conquest of the area, also refers to the stage of the first settlement.⁶

During the rule of Carthage, Nora turned, from a simple coastal settlement and an emporium, into a real urban centre,⁷ probably the main one on Sardinia. The evolution of this town is reaffirmed by its importance immediately after the conquest of the island by Rome and the subsequent foundation of the *provincia Sardinia et Corsica* (227 BC). Its *status* is confirmed by an epigraph by Quintus Minucius Pius, *quattuorvir iure dicundo*, an office typical of the *municipia*.⁸ The urban centre of Nora, *caput viae* of the southern road network and perhaps the governor's seat, until it was transferred to Carales (Cagliari), was characterised, between the last centuries of the Republic and the first years of the Imperial age, by a remarkable urban expansion. In the mid-Imperial period, the town underwent some major urban changes, which involved the road network and the installation of some monuments and infrastructures.⁹

At the end of the fourth century, while some hubs such as the forum and the theater seemed to lose their original function,¹⁰ some areas in the town underwent major works, as in the case of some baths, the road network and the aqueduct,¹¹ which was restored in the mid-5th century AD, as confirmed by an epigraphic document.¹² The following centuries were characterised by a progressive decline of the town, which lost its importance and was finally abandoned around the 8th century AD. Already in the 7th century, in fact, Nora is mentioned by the anonymous author of the Ravenna Cosmography as a simple *praesidium*.¹³

Starting from 2013, in the area located to the north/northwest with respect to the hill known as the Colle di Tanit, new stratigraphic surveys were carried out that allowed the acquisition of new data on the life phases of the urban centre.¹⁴ This is an area (fig. 2)



Fig. 1: The promontory of Nora.

previously occupied by a base of the Italian Navy, characterised by a slight slope that has the highest elevation point in the southeastern area. This is where a major building complex, the northern portion of a residential area already identified to the south in the 50s of the twentieth century by G. Pesce, who named it Kasbah, was spotted.¹⁵ The section recently investigated is characterised by the presence of a complex consisting of small rooms, which seems to date back to the late Republican period until the last centuries of the Imperial period (fig. 3).¹⁶ On the west side, this district features a portion of a south-north road made of andesite.¹⁷ Characterised by an irregular pattern that seems to follow the urban layout and pre-existing facilities, Nora road network was built in different phases, which date back to different periods, ranging between the mid- and the late Imperial period.¹⁸

The road portion identified with the recent investigations continues northwards, towards a new section, which is particularly interesting: it is an open space (fig. 4), characterised by the presence of majestic buildings and infrastructures, and was probably a public open space.¹⁹ This area features a large circular basin and the remains of a semi-circular construction consisting of a concrete core and a wall made of brick *bessales*, connected to a large circular basin through a duct system located under the stone paving. The analysis of the stratigraphic contexts related to this sector is particularly interesting, since it allows, through the study of some classes of ceramic artefacts, to understand the later life stages of the site. In particular, we will focus here on the productions called “common pottery”, which are usually not taken into account for defining archaeological contexts from a chronological and functional point of view.²⁰ The absence of a shared methodology of study and a universal taxonomic classification of these containers, in particular for those specifically designed for cooking, has always been an obstacle



Fig. 2: The former military area of Nora.

to the overall interpretation of stratigraphic contexts. In fact, it is known that in the study of historical sites, the presence of commonly used ceramic materials is generally considered as an obstacle to the functional but above all chronological definition of the different phases of frequentation. This is due to the essentially conservative nature of



Fig. 3: The former military area of Nora, view from south with Roman neighborhood and road.



Fig. 4: Omega Area.

the ceramic shapes and types of some of these productions;²¹ we should also add, also in the case of imported productions, a persistence of the macroscopic characteristics of the ceramic bodies, for obvious practical reasons, for which morphological and structural features (thickness, thermal shock resistance, impermeability, etc.) are more important than other secondary aspects, such as aesthetic and decorative aspects. In recent years, with the progress of specific studies on these productions, with both minero-petrographic analyses and an approach based on the reference stratigraphic context, more information has been acquired both on the reference time frame of these artefacts and on their production and dissemination areas. In the case of an urban context such as that of Nora, the issues related to ceramic tools used for cooking food are substantially the same as many other coastal sites in the western Mediterranean Sea basin, with the presence and coexistence of artefacts imported from the Italic area, in particular in the late Republican period and during the early Imperial phases, and from North Africa, with a prevalence of these artefacts from the end of the Republican period to the last years of the empire. Starting from the 4th–5th century AD, there was a gradual reduction in imports of these African cooking pottery and an increase in the so-called raw ceramic cookware, produced locally or imported. This phenomenon seems to intensify in the following centuries, with a significant decrease in the number of products imported from the North African basin.²² The progress of these studies has allowed, in the last years, to



Fig. 5: The so-called Colle di Tanit of Nora.

acquire important information on these ceramic artefacts that, found in different sectors of the urban area, can be interpreted as a proof of different phases of frequentation.

Among the first productions of cooking pots found in contexts located further upstream of the so-called Colle di Tanit (fig. 5), we find 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. A fragmentary but fully recomposed exemplar (fig. 6), coming from the Alfa area, has the *burnished slip* on the outer wall, as evidenced by some specimens coming from the Vesuvian area.²³ The macroscopic details of the pottery in question, which have indeed a sandy fabric with a bright red central core, with inclusions ranging from quartz to feldspars, also visible on the surface, as well as black volcanic inclusions, seem to refer to this area. The “orlo bifido” rim pan, probably produced by the same workshops as the *pompejanisch-roten* Platten and whose many similar copies are found in the Tyrrhenian area, seems to date back to the late Republican period and the first Imperial period.²⁴

The number of imported artefacts designed for cooking, however, increased considerably in the mid- and late Imperial period, as evidenced by the widespread diffusion, throughout the Mediterranean area, of containers coming from the North African basin,²⁵ whose many exemplars were also found in the excavation areas of the former military complex, and mentioned in several other publications concerning the site of Nora. These productions, which used to accompany the amphorae coming from Africa, are cooking wares made from the 1st century AD and used up to the 3rd century AD, along with other exemplars



Fig. 6: “Orlo bifido” pan from Vesuvian Area found in Alfa Area.

found in contexts dating to the end of the 4th century. The well-known Hayes 23 casserole, found in Nora, where mainly variant B (=Lamboglia 10A)²⁶ exemplars coming from the north of Tunisia were discovered, seem to date back to this period. The outer surface is characterised by a band of *patina cenerognola* or with burnished slip on one face only, while the inner surface is covered with a semi-gloss paint. In this area, the so-called black top ware dish-lids with orange clay, were also found, both with an unarticulated rim and with hooked rim, such as the Hayes 182 type.²⁷

As already mentioned, starting from the 5th century AD, in many urban centres in the Mediterranean basin, there was a progressive abandonment of African cookware in favour of raw ceramics, whose artefacts, considered for a long time as exclusive local productions, have been better identified by recent studies.²⁸ This happened also in Nora, but not everywhere: based on the survey areas, different phases of frequentation were identified, as evidenced by the presence (or absence) of different productions of cookware. In the areas of the former military complex under investigation, the chronological gap between sectors located at higher altitudes (Colle di Tanit slopes) and those downstream evidences an important difference between the frequentation phases of the urban area. In particular, it was possible to point out that, at higher altitudes of the Colle di Tanit, the phases of abandonment of the analysed contexts have a *terminus post quem non* that does not date back to the end of the 4th century and the beginning

of the 5th century AD. This aspect is confirmed by the presence of materials later found in the fill soil and dating back to this period, consisting of cooking pottery, and, in a small number, of African Terra Sigillata and some amphorae, such as Keay 59 from the south of Byzacena and dating back to the end of the 4th and the beginning of the 5th century AD.²⁹

The situation shows a significant chronological difference in the downstream sector, from where cooking pots used up to the final stages of life of Nora (7th to 8th century AD) come. Among the productions identified, near the E–F road, indeed, some artefacts imported from Africa that were pretty common between the 5th and the 7th/8th century AD, were identified. This production includes, for example, the classic Hayes 99 bowl,³⁰ a typical product of Oudna workshops, which can be found in the C variant also in Mediterranean contexts dating back to the 7th century AD.³¹ Another type identified and dating back to the same period is Hayes 88 (= Lamboglia 55b), typical of Sidi Khalifa workshops, characterised by the enlarged and elongated rim and probably dating back to the mid-6th century AD.³² A context of this sector provides other important data in this regard: it is a cistern, probably reused as a hypogeum for storage in Late Antiquity, made of ceramic materials that seem to date back to the 5th and 6th centuries.³³

During this period, when imported pottery from North Africa still continued to arrive in Nora and other coastal sites, raw ceramic cookware, referring to both *Pantellerian Ware*³⁴ and local productions imitating the shapes and structural characteristics of the imported types became quite popular. Among local, or at least regional productions, we should mention the so-called *ceramica stampigliata* (fig. 7), a production that mainly includes large containers and lids.³⁵ The main feature of these artefacts is the presence, on the surface, of stamped decorations with animals, rosettes, lozenges and toothed circles, in some cases combined with fishbone engravings. In addition to the presence of clear macroscopic details related to their use for cooking, these findings show the classic circles decorations already identified in Cagliari, in particular for what concerns the famous case of the Church of Sant'Eulalia. The time frame, to which these artefacts seem to belong, ranges from the 6th and the 7th–8th century AD.

Ceramic productions referring to the same period can be found in the other sector near the road, the one related to a monumental square with an exedra structure and a large circular basin (Omega area).³⁶ Here, in fact, specimens of amphorae from North Africa³⁷ were discovered, together with a large number of fragments of specimens of common ceramics, both locally produced and imported from Africa (Sigillata D)³⁸ and from Pantelleria. The latter are low pans, considered as typical forms of this production,³⁹ characterised by a raw mixture rich in volcanic minerals that makes them highly resistant to high temperatures.

The analysis of a commercial site like Nora in the phases of life referring to these centuries (5th–8th century AD) should not be separated from a correct and reasoned general analysis, which takes into account both the urbanistic phases, interpreted through a careful examination of the elements of the material culture, and the involvement of



Fig. 7: Ceramica Stampigliata from the former Military Area of Nora.

the latter in the definition of trades and productions. As recently pointed out by D. Vera in a paper on the economy of the Mediterranean in late antiquity, scholars now agree that “[...] *senza i beni di origine tributaria messi in circolazione per le esigenze statali, il commercio mediterraneo non sarebbe stato quel movimento forte, diffuso e capillare di uomini e merci che le ceramiche rivelano*”.⁴⁰ These findings should be connected, therefore, to two methodological phases: a first phase, essentially linked to the interpretation of stratigraphic contexts, which allows to give an outline of the site’s chronological phases; and a second phase, which is no less important and is linked to a broader vision, which allows to place the excavation context in the more general Mediterranean dimension connected to trade and commerce. In this regard, the presence of materials related to phases that belong to the 5th–7th century AD only in certain areas of the urban centre, can be interpreted as a consequence not of a moment of crisis, but rather of a remodelling of the spaces of the town and a redevelopment of the same. It is clear, in fact, that the presence or absence of imported ceramics should not be seen as the symptom of a commercial and structural decay due, for what concerns, in particular, the 5th century, to a systematic destruction caused by populations coming from outside. In fact, it is known that the events linked to the Vandal raids are usually associated with a hypothetical period of general crisis for what concerns the Mediterranean coastal sites.⁴¹ As for Nora, its situation can help read data relating to this and subsequent periods differently. From the end of the 4th century and during the 5th century, several facilities revolving around the main areas of public life in the town in the Imperial period, such as the forum and the theater (fig. 8), lost their original function and were prematurely abandoned.⁴² But it is also a period, in which important infrastructures were renovated, as in the case of the Terme a Mare (fig. 9), which loses its original function, to be transformed, probably, into a fortification that will cease to exist around the mid-8th century.⁴³ Or as in the case of the aqueduct, restored in the first half of the 5th century AD, as evidenced by an epigraphic document dated between 425 and 450 AD.⁴⁴ This is the period in which the Vandals conquered North Africa and the one immediately preceding the conquest of Sardinia, between 459 and 466 AD.⁴⁵ But what happens in Nora in these decades between the second quarter and the end of the 5th century AD?

According to the stratigraphic contexts analysed, the eastern side of the Colle di Tanit was abandoned around the first half of the 5th century AD, when the town was undergoing major changes, as evidenced by the abandonment of several public facilities; on the other hand, the sectors connected to the road network and the port continued to be frequented.⁴⁶ The epicentre of this sector, which is directly connected, from a topographic point of view, with the near port, seems to be the basilica (fig. 4), whose construction seems to date back to the 5th century AD.⁴⁷ It is a building located near the main road (G–H) connected to the port, characterised by a large rectangular layout (32 × 22 m.), with a portico and three naves and closed at the bottom by an apse.⁴⁸ Unlike the theater and the forum sectors, located southeast of the Colle di Tanit, the sector overlooking the Cala di Libeccio and more generally the whole western side of the hill



Fig. 8: Roman forum of Nora (copyright UniPD).

seem to be characterised by more lively life stages.⁴⁹ As for the residential areas, this is confirmed by the stratigraphic contexts analysed in this article, and by the building events involving the so-called Kasbah.⁵⁰ On the western slope of the Colle di Tanit, it was pointed out that the road made of large andesite blocks (E–F) features a layer of soil that closed the roadway dating back to the Imperial age, no longer used and, on which facilities were also built between the 5th and the 6th century AD.⁵¹ These chronological data are also confirmed by recent surveys carried out in the northernmost section of the same road, in the former military area, where the later levels were associated with the last life stages of Nora.⁵²

Closely connected to the port sector was also the western district of the so-called *case-bottega*,⁵³ active since the 5th century BC, but with different phases of life. In the northernmost sector of this building complex, there is a building facing the road (G–H), characterised by layers that confirm that this area was frequented between the 4th and 7th century AD.⁵⁴

The analysis of these contexts seems to highlight a substantial continuity in the life of Nora from the end of the 4th century to the last stages of life of the town. In fact, what has often been defined as a period of crisis, seems to emerge as a contraction of urban spaces towards the new centre of the town, the port in the Cala di Libeccio (fig. 10). The decrease in the number of imported ceramics in the urban area since the mid-fifth century, repeatedly highlighted in the studies,⁵⁵ should also be analysed based on the data from the hinterland of Nora: if, for what concerns the centuries that go from the



Fig. 9: Terme a Mare of Nora (copyright UniPD).

Punic domination to the 3rd century AD, in the area around the city a greater quantity of local ceramics was found than imported ceramics, from the 4th century to the Byzantine period there seems to be a turnaround.⁵⁶ The surveys carried out in recent years show, in fact, an important presence of ceramic artefacts coming from North Africa,⁵⁷ which evidently reached Nora by sea through the port, and then were sorted in the hinterland, in a *“rapporto fecondo tra campagna e città, cioè della forza propulsiva di quest’ultima verso le aree rurali di pertinenza”*.⁵⁸ There was a change in the production and economic dynamics, a situation also confirmed by the change in the use of residential buildings in the urban area, which, in this period, were into facilities for productive activities.⁵⁹ But above all, the changed relationship between the town and the countryside can be seen as a sign of a real increase in population in the countryside, with a partial abandonment of the urban centre, which was no longer the driving force of the economy and production activities.

Moreover, this type of analysis must be included in a broader discussion, which takes into account the specific historical period and the related political events. However, this hypothetical decrease in the number of imports does not seem to be involve only Nora, but can be associated with a general decline in trades in the Mediterranean, as evidenced in several coastal urban sites. In an attempt to understand the commercial dynamics and life phases of Nora from the mid-5th century on, it is indeed appropriate



Fig. 10: Area of “Cala di Libeccio” of Nora from east.

to interpret these data based on what is happening in the rest of the Mediterranean. It is known that the period of the ascent of the Vandals was characterised by major political (and consequently, economic) changes in the Mediterranean. But what was happened in Nora in many stratigraphic contexts seems to correspond to a general downturn due to a sharp decline in population and the decay of political structures. As pointed out, once again, by D. Vera: *“La rottura della unità commerciale del Mediterraneo antico [...] non è spiegabile solo in termini economici e rimane legata ai processi globali connessi con la fine dell’organismo politico su cui si reggeva l’architettura della produzione e degli scambi. Ma in termini strettamente economici (e anche sociali e demografici, se per questo) si spiega assai meglio con un modello basato sulla caduta della domanda anziché sulla caduta dell’offerta. Come era possibile che l’Oriente continuasse ancora a esportare in un Occidente sempre più impoverito – anche delle tradizionali élites consumatrici – e spopolato? E come era possibile che il commercio potesse sussistere ai livelli antichi in un impero orientale semidistrutto, colpito nel VII secolo da un fortissimo regresso demografico e dalla deurbanizzazione, deprivato di tre quarti delle entrate pubbliche e di tutte le province più ricche?”*⁶⁰

It was, then, a global phenomenon that should not be univocally interpreted, and the analysed context should be included in a broader discussion on the Mediterranean between the 5th and the 7th century AD. There is no doubt that the town of Nora gradually lost its importance, from the 4th century onwards, also considering the fact that did not have a diocese.⁶¹ However, the analysis of the urban phases of Nora, related to the

contemporary situations in the surrounding hinterland, reflect a situation that should not be interpreted simply as a crisis. It is, indeed, a physiological contraction of the spaces of a town that in the Imperial period had a polycentric nature (forum, port, sanctuaries, baths, etc.) and that now seems to incorporate civil, commercial and sacred aspects into a single district that the ships that entered the Cala di Libeccio could see extending to the east, from the western slopes of the so-called Colle di Tanit to the coast line.⁶²

Notes

¹ Tronchetti 2018, 12.

² Paus. 9, 17, 5.

³ Solin. 4, 2.

⁴ Bonetto 2009 and Bonetto 2018.

⁵ Bonetto et al. 2017a.

⁶ Tronchetti 2018, 12 f. With regard to the text of the stele and its interpretation see: Pilkington 2012.

⁷ About the concept of city, urban centre and urban space in the Punic period see: Morigi 2007.

⁸ Tronchetti 2018, 14.

⁹ 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, 159–164; Ghiotto 2004, 146–148).

¹⁰ Bonetto – Ghiotto 2013, 271 f.

¹¹ About these stages of the town see: Bonetto – Ghiotto 2013.

¹² CIL, X, 2, 7542 = ILS, 5790 = CLE, 290.

¹³ Ravenn. 5, 26. As pointed out in Spanu 1998, 38, Nora became a simple praesidium not with the arrival of the Vandals, but in the Byzantine period, as part of a larger project that aimed at fortifying the coastal towns on the island. The scholar also points out that the Codex Justinianus, enacted in 534 AD, explicitly uses the term praesidium with reference to military outposts to be established in Sardinia.

¹⁴ ISTHMOS Project, Università degli Studi di Cagliari. Scientific Director: prof. Marco Giuman.

¹⁵ Giannattasio 2018, 81.

¹⁶ Carboni – Giuman 2018.

¹⁷ Carboni et al. 2014, 8.

¹⁸ A summary of these aspects in Bonetto 2003 and Bejor 2018.

¹⁹ Carboni – Cruccas 2018.

²⁰ The bibliography on the subject is, of course, very broad. Among the most important works for the definition of these methodological aspects related to common ceramics we should mention those by G. Olcese (1993 and 2003 in particular). On this aspect, see also: Bats 1996, 481–484; Panella 1996; Pavolini 2000, 13–17. For a recent summary of the issues concerning common pottery: Esposito – Zurbach 2015.

²¹ About the permanence of certain forms and types of ceramics for cooking food in certain contexts see, for example, recent and interesting considerations in Luley 2014.

²² The hypotheses on this phenomenon are associated, in the studies on the subject, with a change in the commercial dynamics occurred in Sardinia since the 5th century, which reflected a new balance between trades and the related economic and social relations in the western Mediterranean. On the subject, see the recent summary Muresu 2017.

²³ Olcese 2003, 42 (Tipo 3), 86 f. pl. XV.1; Scatozza Höricht 1996, 141.

²⁴ In particular, the exemplars from Herculaneum show a substantial morphological affinity with those from Nora because of the diameters that can reach 40cm (Menchelli et al. 2012, 99).

²⁵ Tortorella 1981; Bonifay 2004; Gandolfi 2005, 224 f.

²⁶ Albanese 2013, 66–71.

²⁷ Bonifay 2004, 217 fig. 15.

²⁸ Also in this regard, there is a wide bibliography. For a description of the issues and for possible research ideas on local/regional concepts applied to the analysis of the artifacts, refer to the interesting analysis in Poblome et al. 2014 (with previous bibliography).

²⁹ Bonifay 2004, 31.

³⁰ Hayes 1972, 155.

³¹ Bonifay 2004, 181.

³² Bonifay 2004, 174–177.

³³ The context and the materials were studied by M. Napolitano and discussed in a paper entitled “Contributo alla conoscenza di Nora in età tardo-antica: il contesto ceramico dell’ambiente ipogeo o «vano G»” at the 31st RCRF international congress in Cluj-Napoca, Romania (23–30 September 2018).

³⁴ For a classification of this production: Fulford – Peacock 1984; Santoro 2002; Abelli 2009.

³⁵ Cara, Sangiorgi 2006 and Mele 2014.

³⁶ Data concerning this area derive in part from the work carried out by M. Atzeni for his degree thesis discussed in 2017/2018: (Nora, zona ex militare: i materiali ceramici provenienti dall’area Omega (US 10033)). Data on the materials found during the excavation are the result of the work of the staff of the finds laboratory, coordinated by Miriam Napolitano of the University of Cagliari.

³⁷ Mainly mixtures and typologies refer to the productions of Africa Proconsularis, in particular in the area of Sullechtum-Salakta, between the 5th and the 7th century AD. About these transport containers see Peacock et al. 1989; Capelli et al. 2006; Capelli – Bonifay 2016, 547. Proof of these productions is also provided by underwater findings found near the Nora peninsula (Sanna 2016, 6; Bonetto et al. 2017b, 206 n.20).

³⁸ Hayes 91, Hayes 61 A/B, Hayes 67, Hayes 181 and Hayes 82b.

³⁹ 3.1, 3.2, 4.4a, 4.4b Scauri (Baldassarri 2009).

⁴⁰ Vera 2010, 2.

⁴¹ On the subject, see the recent analysis in Muresu 2017.

⁴² Bonetto, Ghiotto 2013, 271–274.

⁴³ Tronchetti 1985, 78 f.

⁴⁴ CIL, X, 2, 7542 = ILS, 5790 = CLE, 290: “Salvis d(omi)n(is) n(ostris) / [T]heodosio et Placido Valentiniano, s[emper Aug(ustis)]. / Sub]ductos olim latices patrieque nega[ros / res]tituit populis puro Flaviolus am[ne], / cu[ra]nte / [V]alerio Euhodio principale ac / primore eiusdem urbis”.

⁴⁵ Spanu 2005, 499–500. About the Vandals in Sardinia see the summaries in Martorelli 2007 (in particular for what concerns religious aspects) Ibba 2010 and Muresu 2017.

⁴⁶ Giannattasio 2016. The vitality of Nora in the 5th century has already been highlighted in Martorelli 2007, 1423.

⁴⁷ Bonetto, Ghiotto 2013, 273 (with previous bibliographic references),

⁴⁸ Bejor 2000; 2008.

⁴⁹ Also near the so-called Santuario di Esculapio there are some phases of restoration and frequentation that date back to the 4th and 7th century AD, as also evidenced by the reuse of architectural elements inside later walls (Giannattasio 1994; Bejor 2004, 10 f.).

⁵⁰ About these two sectors, see, once again, the summary in Bonetto, Ghiotto 2013, 275 with notes and previous bibliography. In the so-called Ambiente X of the western district, some ceramic materials that can be placed between the 5th century and the 6th century AD were found, but the remains related to the collapse and abandonment of the facility seem to refer to the late 5th century AD, based on a fragment of African Sigillata D Hayes 67 (Tilloca 2000, 242). This sector was later (second half of the 6th century AD) involved in the excavation of some holes filled with ceramic material.

⁵¹ Oggiano 1994, 103.

⁵² Carboni et al. 2014, 8.

⁵³ Colavitti 2018. About this sector and the presence of ceramics imported from Africa and referring to the 5th and 7th century AD see the summary in Bejor 2004.

⁵⁴ Colavitti – Tronchetti 2000.

⁵⁵ Bonetto – Ghiotto 2013, 276.

⁵⁶ Garau – Rendeli 2006, 1254 f.

⁵⁷ This shows a closer relationship between the town and the countryside, with a well-distributed and intensive exploitation, according to a system of villae aimed at the intensive exploitation of the countryside (Garau – Rendeli 2006, 1254 f.). About the Vandal period and settlements in the area see Nervi 2016, in particular pages 406–409.

⁵⁸ Garau – Rendeli 2006, 1258.

⁵⁹ Garau – Rendeli 2006, 1258 f.

⁶⁰ Vera 2010, 14.

⁶¹ The representatives of the five episcopal seats of Sardinia, which did not include Nora (Martorelli 2007, 1421), participated in the Council organised by Huneric in 484 in Carthage. See also: Bejor 2008, 107; Martorelli 2017, 269.

⁶² For what concerns these centuries, a change in the relationships due to the centrality of Carales, on which perhaps Nora depended in the 5th–8th centuries and on which, in a hierarchical relationship, several productive rural sites depended on, should not be excluded (Garau – Rendeli 2006, 1270–1274).

Image Credits

Fig. 1: Google Earth. – Fig. 2: edited by the author from Google Earth. – Fig. 3–7: Isthmos Project Archive. – Fig. 8. 9: Bonetto et al. (ed.), Nora. Pula. Sardegna Archeologica 1 (Sassari 2018). – Fig. 10: by the author.

References

Abelli 2009

L. Abelli, Archeologia delle rotte nel canale di Sicilia: il caso Scauri, in: R. La Rocca – S. Tusa – S. Zangara (eds.), *Il relitto tardo-antico di Scauri a Pantelleria* (Palermo 2009) 345–351.

Albanese 2013

L. Albanese, Nora. Area C. Vano A32. Un immondezzaio urbano in un contesto abitativo romano (Genova 2013).

Albanese 2018

L. Albanese 2018, Il quartiere occidentale di abitazioni e case-bottega, in: Bonetto et al. (ed.), Nora. Pula. Sardegna Archeologica 1 (Sassari 2018) 96–101.

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) 91–106.

Bats 1996

M. Bats (ed.), *Les céramiques communes de Campanie et de Narbonnaise (I^{er} s. av. J.-C. – I^{er} s. ap. J.-C.). La vaisselle de cuisine et de table* (Napoli 1996).

Bejor 1993

G. Bejor, Romanizzazione ed evoluzione dello spazio urbano in una città punica: il caso di Nora, in: A. Mastino – P. Ruggeri (eds.) *L’Africa romana: atti del X Convegno di studio*, Oristano, 11–13 dicembre 1992 (Roma 1993) 843–856.

Bejor 2000

G. Bejor, La basilica presso le Grandi Terme, in: C. Tronchetti (ed.), *Ricerche su Nora I (1990–1998)* (Cagliari 2000) 173–176.

Bejor 2004

G. Bejor, Riscavo di uno scavo: la riscoperta di Nora tardoantica, in: V. de Angelis (ed.), *Sviluppi recenti nell’antichistica. Nuovi contributi*, Quaderni di Acme 68 (Milano 2004) 1–21.

Bejor 2008

G. Bejor, Una città di Sardegna tra antichità e Medio Evo: Nora, in: L. Casula – A.M. Corda – A. Piras (eds.), *Orientis radiata fulgore. La Sardegna nel contesto storico e culturale bizantino*, Atti del Convegno, Cagliari, 30 novembre – 1 dicembre 2007 (Cagliari 2008) 95–113.

Bejor 2018

G. Bejor, La rete stradale, in: Bonetto et al. (ed.), Nora. Pula. Sardegna Archeologica 1 (Sassari 2018) 101–102.

Bonetto 2003

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) 21–38.

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* (Padua 2009) 39–243.

Bonetto 2018

J. Bonetto, Il quartiere preromano sotto al Foro, in: Bonetto et al. (ed.), Nora. Pula. Sardegna Archeologica 1 (Sassari 2018) 39–44.

Bonetto – Ghiotto 2013

J. Bonetto – A.R. Ghiotto, Nora nei secoli dell’alto Medioevo, in: R. Martorelli (ed.), Settecento-Millecento. Storia, Archeologia e Arte nei “secoli bui” del Mediterraneo. Atti del Convegno di Studi. Cagliari 17–19 ottobre 2012 (Cagliari 2013) 271–299.

Bonetto et al. 2017a

J. Bonetto – C. Andreatta – S. Berto – L. Bison – E. Bridi – M. Covolan – S. Dilaria – A. Mazzariol – M. Ranzato, La necropoli fenicio-punica e le infrastrutture romane nell’area della ex Base della Marina Militare, Quaderni Norensi 6, 2017, 169–188.

Bonetto et al. 2017b

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, Quaderni Norensi 6, 2017, 201–211.

Bonifay 2004

M. Bonifay, Études sur la céramique romaine tardive (Oxford 2004).

Capelli – Bonifay 2016

C. Capelli – M. Bonifay, Archeologia e archeometria delle anfore dell’Africa romana. Nuovi dati e problemi aperti, in: A.F.F. Fernandes – G. Pardini (eds.), Le regole del gioco. Tracce, archeologi, racconti. Studi in onore di Clementina Panella (Rome 2016) 535–557.

Capelli et al. 2006

C. Capelli – N.B. Lazreg – M. Bonifay, Nuove prospettive nelle ricerche archeometriche sulle ceramiche nordafricane: l’esempio dell’atelier di Sullechtum-Salakta, Tunisia centrale (I-VI secolo d.C.), in: N. Cucuzza – M. Medri (eds.), Archeologie. Studi in onore di Tiziano Mannoni (Bari 2006) 291–294.

Cara – Sangiorgi 2006

S. Cara – S. Sangiorgi, La ceramica da fuoco proveniente da Sant’Eulalia a Cagliari. Analisi dei coperchi con decorazione, QuadCagl 22, 2006, 19–45.

Carboni – Cruccas 2018

R. Carboni – E. Cruccas, Ex Base della Marina Militare: spazio pubblico e spazio privato a Nora, Quaderni Norensi 7, 2018, 197–208.

Carboni et al. 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, FOLD&R Italy: 307.

Carboni – Giuman 2018

R. Carboni – M. Giuman, Fasi di frequentazione e utilizzo degli spazi urbani a Nora: il quartiere meridionale nell’ex area militare tra l’età tardo-repubblicana e quella imperiale, FOLD&R Italy: 418.

Colavitti – Tronchetti 2000

A.M. Colavitti – C. Tronchetti, Area M. Lo scavo di un ambiente bizantino: il vano M/A, in: C. Tronchetti (ed.), Ricerche su Nora I (1990-1998) (Cagliari 2000) 33–66.

Esposito – Zurbach 2015

A. Esposito – J. Zurbach (eds.), *Les céramiques communes. Techniques et cultures en contact*, Travaux de la Maison Archéologie & Ethnologie, René-Ginouvès 21 (Paris 2015).

Fabiani 2000

F. Fabiani, Nora X. Area A-B: lo scavo dell'ambiente X. *QuadCagl* 17, 2000, 237–252.

Frontori 2014

I. Frontori, Nora (Pula, Cagliari). Indagini archeologiche nel quartiere delle Terme Centrali, Area E (Campagna di scavo 2013), *FOLD&R Italy*: 303.

Fulford – Peacock 1984

M.G. Fulford – P.S. Peacock, *Excavations at Carthage: the British Mission 1,2. The Avenue du President Habib Bourguiba, Salambo. The Pottery and the other Ceramic Objects from the Site* (Sheffield 1984).

Gandolfi 2005

D. Gandolfi (ed.), *La ceramica e i materiali di età romana. Classi, produzioni, commerci e consumi* (Bordighera 2005).

Garau – Rendeli 2006

E. Garau – M. Rendeli, Tra Africa e Sardinia: mobilità di merci e di genti (?) a Nora nella tarda antichità, in: A. Akerraz – P. Ruggeri – A. Siraj – C. Vismara (eds.), *L'Africa Romana: Atti del 16 convegno di studi, Mobilità delle persone e dei popoli, dinamiche migratorie, emigrazioni ed immigrazioni nelle province occidentali dell'Impero romano*, Rabat, 15–19 dicembre 2004 (Rome 2006) 1247–1278.

Ghiotto 2004

A.R. Ghiotto, *L'architettura romana nelle città della Sardegna* (Rome 2004).

Giannattasio 1994

B.M. Giannattasio, Nora III. Tre capitelli ionici a quattro facce, reimpiegati, *QuadCagl* 10, 1994, 141–149.

Giannattasio 2016

B.M. Giannattasio, Il quartiere nord-occidentale di Nora tra età severiana e tardo-antico: recenti scavi, in: S. Angiolillo – M. Giuman – R. Carboni – E. Cruccas (eds.), *NORA ANTIQUA*, Atti del Convegno di Studi, Cagliari, Cittadella dei Musei 3–4 ottobre 2014 (Perugia 2016) 83–90.

Giannattasio 2018

B.M. Giannattasio, Le pendici meridionali del colle di Tanit, in: Bonetto et al. (ed.), *Nora. Pula. Sardegna Archeologica 1* (Sassari 2018) 81–83.

Hayes 1972

J.W. Hayes, *Late Roman Pottery* (London 1972).

Ibba 2010

A. Ibba, I Vandali in Sardegna, in: A. Piras (ed.), *Lingua et ingenium. Studi su Fulgenzio di Ruspe e il suo contesto* (Ortacesus 2010) 385–425.

Luley 2014

B.P. Luley, *Cooking, Class, and Colonial Transformations in Roman Mediterranean France*, *AJA* 118.1, 2014, 33–60.

Martorelli 2007

R. Martorelli, La diffusione del cristianesimo in Sardegna in epoca vandala, in: R.M. Bonacasa – E. Vitale (eds.), *Atti del 9 Congresso Nazionale di Archeologia Cristiana, Agrigento, 20–25 novembre 2004 (Palermo 2007)* 1419–1448.

Martorelli 2017

R. Martorelli, Le città in Sardegna fra tardoantico ed altomedioevo, in: S. Angiolillo et al. (eds.), *La Sardegna romana e altomedievale. Storia e materiali (Sassari 2017)* 265–278.

Mele 2014

M.A. Mele, Ceramica stampigliata altomedievale dal complesso archeologico di Soroeni (Lodine-NU), *QuadCagl* 25, 2014, 343–372.

Menchelli 2012

S. Menchelli, Vasi comuni nell'Etruria settentrionale costiera, in : C. Batigne-Vallet (ed.), *Les céramiques communes dans leur contexte régional: faciès de consommation et mode d'approvisionnement. Actes de la table ronde organisée à Lyon, Lyon – Maison de l'Orient et de la Méditerranée, 2 et 3 février 2009 (Lyon 2012)* 87–111.

Morigi 2007

A. Morigi, La città punica: topografia e urbanistica (Lugano 2007).

Muresu 2017

M. Muresu, I Vandali: isolazionismo integralista o logica imprenditoriale? Riflessioni sul Mediterraneo di V-VI secolo, *CaSteR* 2 (Cagliari 2017).

Nervi 2016

C. Nervi, Il paesaggio di Nora. Studio dei materiali romani e tardoantichi, *BARIntSer* 2833 (Oxford 2016).

Oggiano 1994

I. Oggiano, Nora II. Lo scavo, *QuadCagl* 10, 1994, 101–114.

Olcese 1993

G. Olcese, Le ceramiche comuni di Albintimilium (Florence 1993).

Olcese 2003

G. Olcese, Ceramiche comuni a Roma e in area romana. Produzione, circolazione e tecnologia. Tarda età repubblicana – prima età imperiale (Mantua 2003).

Panella 1996

C. Panella, Lo studio delle ceramiche comuni di età romana, in M. Bats (ed.), *Les céramiques communes de Campanie et de Narbonnaise (Ier s. av. J.-C. – Iie s. ap. J.-C.). La vaisselle de cuisine et de table (Naples 1996)* 9–15.

Paoletti 1997

S. Paoletti, Nora V. Soluzioni e tecniche dell'acquedotto romano di Nora, *QuadCa* 14, 1997, 159–164.

Pavolini 2000

C. Pavolini, Scavi di Ostia, 13. La ceramica comune. Le forme in argilla depurata dell'Antiquarium (Roma 2000).

Peacock et al. 1989

D.P.S. Peacock – F. Bejaoui – N. Ben Lazreg, Roman amphora production in the Sahel region of Tunisia, in: *Amphores romaines et histoire économique. Dix ans de recherche*. Sienna 1986, Collection de l'École Française de Rome 114 (Rome 1989) 179–222.

Pilkington 2012

N. Pilkington, A Note on Nora and the Nora Stone, *BASOR* 365, 45–51.

Poblome et al. 2014

J. Poblome – D. Malfitana – J. Lund, It's complicated... Past cultural identity and plain broken pottery, *ReiCretActa*, 43, 2014, 11–17.

Sanna 2016

I. Sanna, La marina di Nora in età romana: i reperti subacquei quali indicatori di contatti e scambi economici e commerciali, in: S. Angiolillo – M. Giومان – R. Carboni – E. Cruccas (eds.), *NORA ANTIQUA*. Atti del Convegno di Studi. Cagliari, Cittadella dei Musei, 3–4 ottobre 2014 (Perugia 2016) 3–14.

Santoro 2002

S. Santoro, Pantellerian Ware: aspetti della diffusione di una ceramica da fuoco nel Mediterraneo occidentale, in: M. Khanoussi – P. Ruggeri – C. Vismara (eds.), *L'Africa Romana: Atti del XIV Convegno di studio. Lo spazio marittimo del Mediterraneo occidentale: geografia storica ed economica*, Sassari, 7–10 dicembre 2000 (Roma 2002) 991–1004.

Scatozza Höricht 1996

L.A. Scatozza Höricht, Appunti sulla ceramica comune di Ercolano. Vasellame da cucina e recipienti per la preparazione degli alimenti, in: M. Bats (ed.), *Les céramiques communes de Campanie et de Narbonnaise (Ier s. av. J.-C. – Iie s. ap. J.-C.)*. La vaisselle de cuisine et de table (Naples 1996) 129–156.

Spanu 1998

P.G. Spanu, *La Sardegna bizantina tra VI e VII secolo* (Oristano 1998).

Spanu 2005

P.G. Spanu, *L'età vandolica*, in: A. Mastino (ed.), *Storia della Sardegna antica* (Nuoro 2005) 499–509.

Tronchetti 1985

C. Tronchetti, *Le Terme a mare*, in: *Nora. Recenti studi e scoperte* (Cagliari 1985) 71–81.

Tronchetti 2018

C. Tronchetti, *La storia di Nora*, in: J. Bonetto et al. (ed.), *Nora. Pula. Sardegna Archeologica 1* (Sassari 2018) 12–16.

Tusa et al. 2009

S. Tusa – S. Zangara – R. La Rocca (eds.), *Il relitto tardo-antico di Scauri a Pantelleria* (Palermo 2009).

Vera 2010

D. Vera, *Fisco, annona, commercio nel Mediterraneo tardoantico: destini incrociati o vite parallele*, in: S. Menchelli – S. Santoro – M. Pasquinucci, G. Guiducci (eds.), *LRCW 3. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and archaeometry. Comparison between western and eastern Mediterranean*, *BARIntSer* 2185 (Oxford 2010) 1–18.