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LONG-TERM HUMAN OCCUPATION OF A RURAL LANDSCAPE IN CENTRAL-WESTERN SICILY (CASTRO/GIARDINELLO VALLEY AND MT BARRAÙ): HARVESTING MEMOIRES PROJECT CASE STUDY

Asentamientos humanos de larga duración en áreas rurales en el centro-oeste de Sicilia (Valle de Castro/Giardinello y Monte Barraù): caso de estudio Harvesting Memoires

Siziliako erta-mendebaldeko (Castro/Giardinello Harana eta Barraù Mendia) nekazal-eremu baten giza okupazioa denboran zehar: Harvesting Memories ikerketa kasua

Angelo Castrorao Barba (*)

Antonio Rotolo (**)

Giuseppe Bazan (***)

Pasquale Marino (****)

Stefano Vassallo (*****)

Abstract:

The “Harvesting Memories” project focuses on the study of long-term landscape transformations as a diachronic result of the interaction between socio-economic human patterns and environmental and ecological trends in a rural area of Central-Western Sicily. The aim of this paper is to present the results of the archaeological survey carried out in Castro/Giardinello Valley and the Mt. Barraù area (Corleone, Palermo). The fieldwork confirmed the long occupation of this area characterized by archaeological evidences dating to the Middle Copper Age/Eneolithic, Bronze Age, Classical period, Middle Ages and Late Modern age. The detection of the high intensity of human presence in this area across the time represents a fruitful point of start for future investigations aimed to correlate historical land use, ecological factors and settlement patterns.

Keywords:

Survey, Landscape archaeology, Rural settlements, Sicily.

* Inter-Departmental Research Centre on Technology-Environment Interaction, CIRITA, University of Palermo. angelo.castrorao-barba@unipa.it

** ZIF-Marie Curie Fellow at Zukunfts Kolleg and History and Sociology Department, University of Konstanz. anto.rotolo@uni-konstanz.de

*** Department of Biological, Chemical and Pharmaceutical Science and Technology, University of Palermo. giuseppe.bazan@unipa.it.

**** Bona Furtuna LLC. psq1.marino@gmail.com

***** Soprintendenza BB.CC.AA of Palermo. stefano.vassallo @regione.sicilia.it

Resumen:

El proyecto “Harvesting Memories” se centra en estudiar las transformaciones del paisaje en el área rural del centro-oeste de Sicilia como resultado diacrónico de las interacciones entre los diferentes patrones socio-económicos humanos y las tendencias ambientales y ecológicas a largo plazo. El objetivo principal de éste artículo es presentar los resultados obtenidos del estudio arqueológico llevado a cabo en el Valle de Castro/Giardinello y el área del Monte Barraù (Corleone, Palermo). El trabajo de campo confirma una larga ocupación de éste área, caracterizado por evidencias arqueológicas que datan desde la Edad del Cobre/Eneolítico, Edad del Bronce, Periodo Clásico, Edad Media hasta la Edad Moderna. La alta intensidad de ocupación humana detectada en éste área a lo largo del tiempo nos permite establecer un fructífero punto de inicio para futuras investigaciones cuyo objetivo sea aunar la historia del uso de la tierra, los factores ecológicos y los patrones de asentamiento.

Palabras clave:

Estudio, arqueología del paisaje, asentamientos rurales, Sicilia.

Laburpena:

“Harvesting Memories” proiektuaren helburu nagusia Sizilizako erta-mendebaldeko nekazal-eremuko paisaiak denboran zehar jasan dituen eraldaketak aztertzea da. Horiek, gizakien jokabide sozio-ekonomikoen, ingurugiroaren zein faktore ekologikoen arteko interakzioaren emaitza diakroniko izanik. Artikulu honen xedea Castro/Giardinello Haranean eta Barraù Mendian egindako lan arkeologikoen emaitzak aurkeztea da. Landa lanak zonalde honen okupazioa denbora luzean zehar eman zela berresten du, Kobre Aroko/Eneolitoko, Brontze Aroko, Aro Klasikoko, Erdi Aroko zein Aro Berriko aztarna arkeologikoak aurkitu direlarik. Eremu honetan giza presentziak denboran zehar intentsitate altua izan duela frogatu ahal izateak, landa-eremuen erabilera historikoa, faktore ekologikoak zein kokatze ereduak korrelazioan jarriko dituzten etorkizuneko ikerlanentzako abiapuntu emankor suertatzen da.

Hitz-gakoak:

Ikerketa, paisaiaren arkeologia, landa-eremuko egonlekuak, Sizilia.

1. Introduction

The “Harvesting Memories” project¹ aims to analyze long-term human-landscape dynamics

in Central-Western Sicily (CASTRORAO BARBA *et al.*, 2016a, 2016b). It uses an interdisciplinary approach, integrating different sources to reconstruct the ecological environment, settlement pattern and land use history of a specific rural geographic area.

1 The project is entirely funded by Bona Furtuna LLC a sustainable organic farm producing premium-quality products (mainly 100% organic olive oil). The archaeological fieldwork has been directed by the Soprintendenza BB.CC.AA., Unità Operativa 5 (Dr. Stefano Vassallo), while the study of diachronic landscape changes has been conducted by the Centre for Research on Technology-Environment Interaction – CIRITA, University of Palermo, and supervised by Prof. Giuseppe Bazan (University of Palermo).

This integration of a variety of sources is aimed at a comprehensive and holistic narrative biography of the landscape through the diachronic dynamics of interaction between human societies and ecological systems (VOLPE AND GOFFREDO, 2014; CAMBI 2015).

In this paper we will focus on reporting on the fieldwork survey activities conducted in the western slopes of Monte Barraù and the Castro Valley (C-W Sicily).

2. The case study area: landscape and history

The research area corresponds to the Bona Furtuna LLC estate (350 hectares), which is located 8 km from Corleone in the inland area near Palermo, next to the SS188dir/c road in the direction of Campofiorito (Figure 1).



Figure 1. Map and location of the case study area, central-western Sicily (Corleone, Palermo).

The whole project area measures approximately 300 hectares and includes the areas of Contrada Castro, Contrada Giardinello and Contrada Valle Fredda, which goes up the slopes of Monte Barraù (or Monte Barracù), a Special Conservation Zone (ZCS) of the Monti Sicani district.

A high level of biodiversity is indicated by the presence of 502 taxa of vascular flora, 38 of which are endemic to Sicily. In particular, some rare plants are reported, such as *Nepeta apulei*, *Scorpiurus vermiculatus*, *Linaria chalepensis* and *Cephalaria syriaca*, an uncommon archaeophyte

in this region (CAMBRIA, BAZAN AND MARINO, 2015).

The study area is quite diversified from a bioclimatic point of view as well, presenting different gradients from the Lower Mesomediterranean (Upper dry) and the Lower Supramediterranean (Lower subhumid) (BAZAN *et al.*, 2015).

The landscape has been shaped by frequent changes in geological strata, with the alternation of clayey or marly hills and calcareous reliefs of the Mesozoic period (Sicana facies). This has resulted in a sequence of hills with gentle slopes, irregularly interrupted by isolated mountains with steep, if not abrupt, slopes, which reach the considerable height of 1420 m. a.s.l. (Monte Barraù) (DI STEFANO *et al.*, 2013). A few remains of a holm oak wood, which once probably covered the area, are located on the southern slopes of Monte Barraù (Figure. 2).

Indeed, a Latin parchment (5 October 1428)² from the *Tabularium* of the monastery of Santa Maria del Bosco di Calatamauro (owner of the area since at least since the end of the fourteenth century) mentions a forest covering Mount Barraù³.

2 *Tabulario* of the monastery of Santa Maria del Bosco di Calatamauro 615, 1428, October 5, ind. VII, Corleone (Copy from the original drawn up by the notary Michele de Murria, Judge: the notary Giacomo de Pittacholis): «Gnaffeo de Gnaffeo di Salem vende a frate Giovanni de lu Portu, abbate del monastero di S. Maria del Bosco, una tenuta di terre boschese, in cui è collocata una pietra chiamata la pietra di la pipula, sita in contrada Barrau nel territorio di Corleone, per il prezzo di 20 onze» (ARCADIPANE, BALLETTA AND MICELI, 1991: 187).

3 In the ancient records of the monastery of Santa Maria del Bosco, the Olivetan monk Olimpo da Giuliana wrote: «Nel anno 1383 il detto priore [Fra Giovanni di Puglia] comprò dal giudice Antonio di Calandrino consentiente e ratificante madonna Pascua sua consorte la mità d'un territorio o' fego detto Barraù per prezzo di onze quarantaquattro contanti in questo modo: onze quaranta in tanti fiorini d'oro a raggione di diece tarì l'uno e per l'onze quattro per finito pagamento di detto territorio cene diede cinque vacche con cinque vetelle femmine sequaci» (MARCHESE, 1995: 31).



Figure 2. Holm oak forest and grassland in the western slopes of Mt. Barraù.



Figure 3. The agricultural landscape of the Castro/Giardinello valley.

The ecological characteristics of Contrada Castro and Contrada Giardinello (Figure 3)—particularly rich in freshwater springs—offer optimal conditions for agricultural exploitation, silvo-pastoral activities and human settlement.

3. Historical and archaeological overview

The case study in the Corleone area of central-western Sicily has a long tradition of settlements,

such as the renowned site of Montagna Vecchia (D'ANGELO, SPATAFORA, 1995), together with 30 settlements spanning from Prehistory to the Medieval period (SPATAFORA, 1997). Within this huge district, our area was almost pristine from an archaeological point of view, and the only known archaeological site was a small, allegedly prehistoric settlement located on the southern slopes of Rocche di Castro.

The Alto Belice Corleonese district probably acted as a hinge between the southern and northern coasts of Sicily. In Roman times, in fact, this area was traversed by a road axis linking Palermo to Agrigento through the hypothetical Via Aurelia of the Republican period (milestone of the console C. Aurelius Cotta, 252–248 BC, found in Contrada Zuccarone) (DI VITA, 1963; PRAG, 2006), coinciding with the route of the *cursus publicus* of the *Itinerarium Antoninii* at the height of the Roman imperial age. In the Medieval period, there was likely a continuation of the communication lines along that main route, perhaps with the addition of various secondary roads, along which the area of study is located (VERBRUGGHE, 1976; BELVEDERE, 1987; UGGERI, 1997-1998: 305-306 and 2001: 321-322; BURGIO, 2015).

In fact, it is not a coincidence that the first historical mention of the area dates to the Middle Ages: more precisely, the toponym Barraù or Barracù is cited in the *Jarida*⁴ of Monreale dating to AD 1182⁵. This toponym shows a clear Arabic

4 The *Jarida* is the Sicilian medieval correspondent of a contemporary land register. The *Jarida* of Monreale is written in Latin and Arabic and describes the boundaries (*divisae*) of the lands of Jato, Corleone, Battellaro and Calatrasi, which were donated by the Norman King William II to the Abbey of Santa Maria Nuova of Monreale (JOHNS 2002).

5 «Divisa terrarum Ialicii: principium divise occidentalis est a capite Herneu, exit usque ad vineam et volvitur per Ialcium versus septentrionem cum pede Calatralci; exit supra vineam Notarii Leonis et exit per pedem montis pedem montis usque supra Dichichi, vadit ad favariam Canneti usque ad speluncam Buhafu, exit ad viam que ducit ad Raiam. Exit ad fontem Mazariencium, pervenit ad portam Sancti Petri, volvitur cum monte Errah et exit usque ad Hatara Bibentis Lac, quod est supra canale Sabuci, exit directe ascendendo in capud Burrachu, girat montem Burrachu, et effusio aque occidentalis pertinet ad istam divisam, orientalis ad Rayam, girat montem qui est supra Bulmarru, descendit ad vadum quod est supra Castane et ascendit usque ad portam que discoperit supra casale Metreuy, et clauditur divisa» (Biblioteca Centrale della Regione Siciliana, Tabulario di S. Maria la Nuova di Monreale, nr. 31, published in CUSA, 1868- 1882, I, 179-244, 730-731, n. 137 (234, r 9).

origin, with a possible derivation from a former Greek toponym: *ra's e ġabal bū 'r-raġū*, latinised into *Burrachu* (CARACAUSI, 1994). In the part of the *Jarida* that describes the boundaries of *Divisa Ialicii* (District of Jato), together with the toponym *Burrachu*, it is possible to identify several other micro-toponyms of the area. The reference to Monte Barraù is related to a dispute about the localization of *qa'fat at ġālšú* (Calatralci) which, according to Maurici, may be identified with Pizzo Cangialoso (MAURICI, 1987: 67, 1992: 267, 1998: 40-41, 71).

4. New data from the archaeological survey

The “Harvesting Memories” project field surveys (Figure 4), carried out within the boundaries of the Bona Furtuna, LLC estate, led to the identification of 16 sites of human occupation dating from the Protohistoric to the Medieval to the Modern period. In particular, we identified and delimited 12 areas of pottery concentration

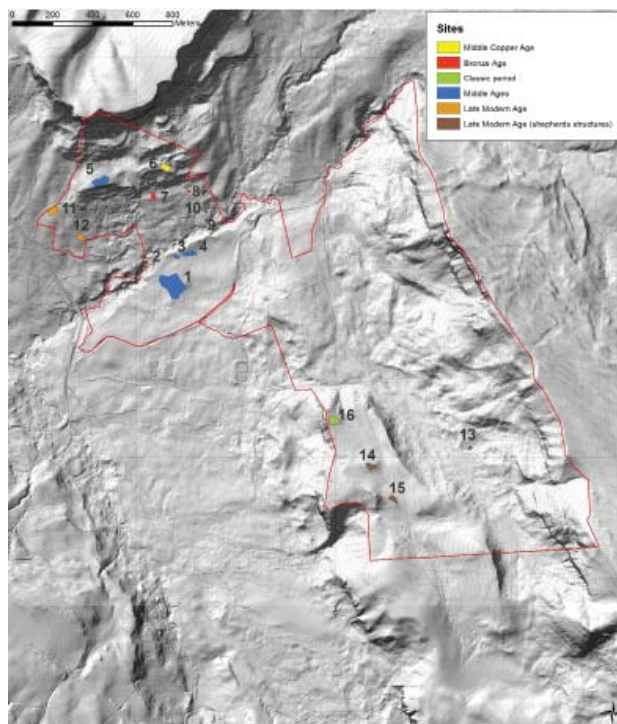


Figure 4. General map with the identified sites.

(Sites: from 1 to 12, and 16) and 4 areas with architectural evidence (Sites: 10, 13, 14 and 15).

On a plateau lying downhill in respect to the south-eastern slopes of Rocche di Castro, we identified pottery scattered (Site 6) in an area with rocky outcrops and bordered by a steep slope on the south, which made ground visibility low during the field survey. We collected a few fragments of handmade impasto pottery dating to the Protohistoric period. It is almost impossible to date the body sherds of impasto potteries more precisely, but a fragment in a grayish material with reddened surfaces and a painted geometric lozenge pattern (Figure 5) is likely to be from the Serrafferlicchio period (Middle Copper Age/Eneolithic, 2800-2500 BC) (ADAMO AND GULLI, 2012: 603, n. 5-16-17, 605, n. 3 Vangu del Lupo in Montallegro-AG)). Three more small sites were identified in the valley below and to the south of the above-mentioned plateau (Sites 7, 8 and 9), where we found body sherds of achromatic impasto pottery, probably dating to the Bronze Age (1800-1200 BC).

In the southern part of the study area (Valle Fredda toponym), on top of a small relief limit reached by the path of an ancient *trazzera*, a concentration of stones and fragments of tiles and diagnostic pottery (Site 16), such as black gloss finished pottery, suggested the presence of an ancient farm (6th-5th century BC). A more intensive occupation of the study area dates back

to the Arab-Norman period (10th-12th century AD).

In the north-western part of the study area, 5 areas with pottery concentrations were recovered, sites 1, 2, 3, 4 and 5, dating between the 10th and the 11th/12th century AD. In Contrada Giardinello, located south of the creek that flows from north-east to south-west, we identified 4 areas with concentrations of materials dating to the Arab-Norman period (10th-12th century AD). Site 1, covering 1.04 ha, is located in a plain with a newly planted olive grove, sloping slightly towards the south-east, on the right uphill with respect to a small water source covered by wild brambles. The other three areas with materials (2, 3 and 4) are less extensive, measuring respectively 0.047 ha, 0.0009 ha and 0.14 ha, and are located a very short distance north of Site 1.

Another site (Site 5) is located further north, on the top of a small hill (accessible only from the western side) lying at the foothill of the southern slopes of Rocche di Castro. The site is in a flat area that is delimited towards the south by a cliff and on the remaining sides by dry stone walls. The first survey allowed us to discover the remains of a Modern period *mannara*, or sheepfold. The area of pottery sherds has been divided into two parts (or topographic units), the east part of which is UT01 and the west part UT02.

We collected a wide range of diagnostic pottery sherds dating to the 10th-11th/12th century (small shards of black-glazed pottery indicate an occupation also during the archaic/classical and Hellenistic period). Together with Medieval vacuolated tiles (D'ANGELO, 1989; ARCIFA, 2010: 108-109; ROTOLO, 2011), which have been identified in several sites all over Sicily, we also picked up a fragment that presented both *vacuoli* and a combed surface (Figure 6, A).

We also found several examples of the widely attested handles of amphora with elliptical

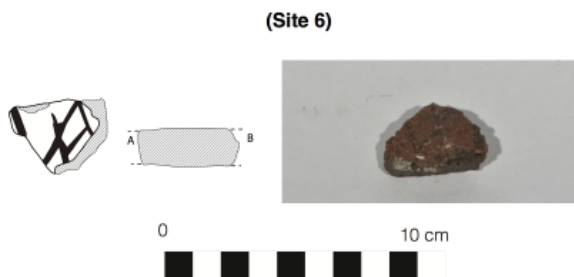


Figure 5. Fragment of Serrafferlicchio style pottery.

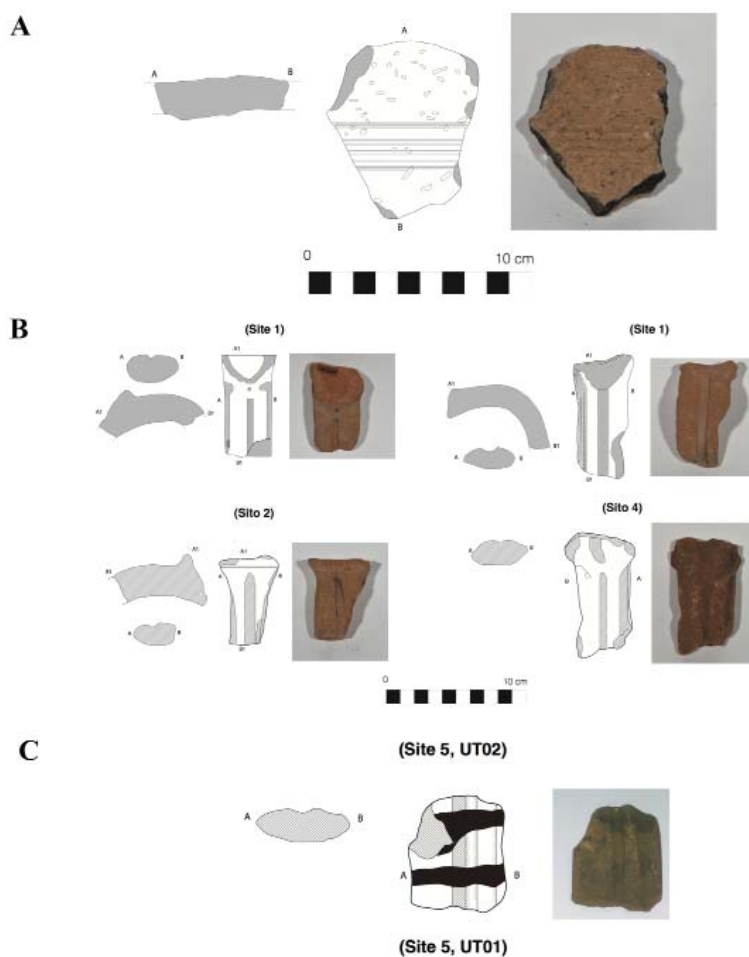


Figure 6. A) Vacuolated tile with combed surface (Site 1); B) Handles of amphora with elliptical sections and one or more longitudinal dents in the middle; C) Handles of amphora with elliptical sections, longitudinal dent in the middle and brownish decoration.

sections and one or more longitudinal dents in the middle (Figure 6, B) (ARDIZZONE, GAROFANO AND GRECO 1997-1998: 673, A17, 10th-12th century); some of these handles also presented traces of brownish decoration (Figure 6, C), the decorations consist of brown or reddish stokes, which can be perpendicular to the length of the handle (MACCARI POISSON, 1984: I, 273, tab. 16, 276, tab. 18, I, dating to the 11th-12th century, and ARDIZZONE, GAROFANO and GRECO 1997-1998: 673, A17, dating to the 10th-12th century) or longitudinal (MACCARI POISSON, 1984: 276, dating to the 10th-11th century).

As regards the rims, some of them were vertical, wrought externally, rounded with a tapered section and belonged to amphorae with small mouths and short necks (Figure 7, A)⁶.

6 Comparisons for 10th-11th century: Gruppo V of Contrada San Nicola in Carini, see ARDIZZONE, GAROFANO AND GRECO 1997-1998: 675; ARDIZZONE, 2012: 103 note 53 «Anfore con orlo simile a questo tipo, anch'esse acrome e con diametri confrontabili con i nostri, sono stati recuperati nei contesti di XI secolo a Casale Nuovo (Mazara), cfr. MOLINARI AND VALENTE, 1995: 417, tab. III, 9-10. Un frammento di orlo acromo è stato recuperato in Via Torremuzza a Palermo in un contesto dell'XI secolo (fig. 39, I). Frammenti analoghi provengono dal Chiostro di San Domenico a Palermo (fig. 40), cfr. LESNES, 1998: 17, tav.

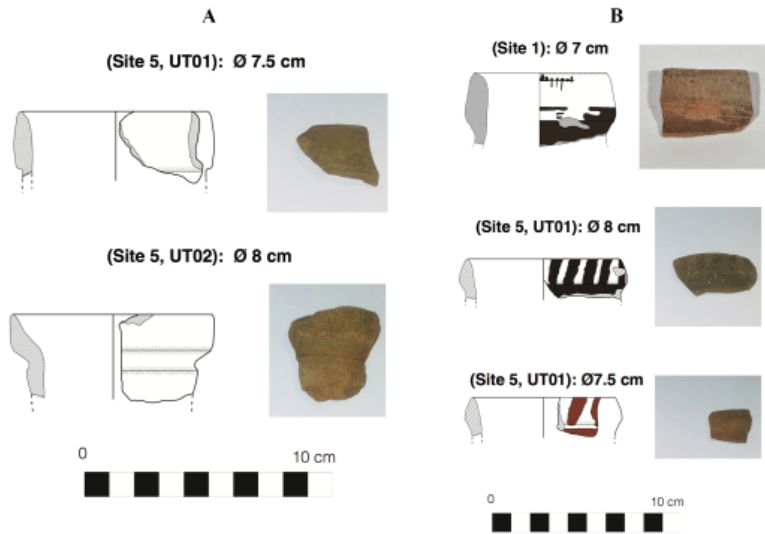


Figure 7. A) Amphorae with a small mouth and a short neck; B) Painted amphorae with a small mouth and a short neck.

Other amphorae with small mouths and short necks presented carinated rims, with traces of linear decorations in red or brown paint (Figure 7, B)⁷.

Other fragments belonged to wide-mouthed amphorae with vertical and externally folded rims, with a rib between the rim and the neck (Figure 8, A)⁸.

Il»; ARDIZZONE *et al.* 2012: 170 nn. 57013, 57014, 57015; MACCARI POISSON, 1984: 273, I, tav. 16, E, 267, tav. 12, F).

7 Comparisons for second half of 10th–first half 11th century: Gruppo IV of Contrada San Nicola in Carini CSN 20, see ARDIZZONE, GAROFANO and GRECO, 1997-1998: 674); ARCIFA and LESNES, 1997: 409, fig. 2a, 6 o 10; ARDIZZONE, 2012: 91 fig. 31, n. 20; ROTOLO, 2012: Cm3.66.01-595/Cm3.61.02-464/Bu3.75-524; ARDIZZONE *et al.* 2012: 170 n. 57015; ALFANO and SACCO, 2014: 20, VIUT 149.19);

8 Comparisons for 10th–11th century: Group II, second half of 10th–first half 11th century, of Contrada San Nicola in Carini in ARDIZZONE, GAROFANO and GRECO 1997-1998: 672, A2-A12; ARDIZZONE, 2012: 90-94; MACCARI POISSON, 1984: 275 tab. 17, C-I; ALFANO and SACCO 2014: 19 (VIUT156.5), 30, fig. 38 (VIUT135.5, VIUT135.6, VIUT135.7, VIUT135.9 VIUT135.11, VIUT135.13); RIZZO, 2004: 115, 45).

Globular pots with everted subvertical rims, grooved bellies, red fabric and calcite inclusions (see ARCIFA and LESNES 1997: 406- 412, 407, fig. 2a (10th-11th century) and the fragments from the church of the Gancia in Palermo (ARDIZZONE, PEZZINI and SACCO 2014: 222) were also present (Figure 8, B). Transparent-glazed basins with green and brown decorations and green glazed fragments of tableware were also found (Figure 8, C) (see MOLINARI, 1997a: 377; FIORILLA, 1995: 206; RIZZO, 2004: 64, fig. 18).

Two other small areas of ceramic sherds (Sites 11, 12) are located in the north-eastern part of the Bona Furtuna estate. We collected only very few small fragments, which may indicate a low occupation of the area during the Modern period (18th-19th century AD).

Other sites of historical interest are Sites 10, 13, 14 and 15. They are particularly interesting because of the presence of architectural structures related to the activities of pre-industrial shepherds.

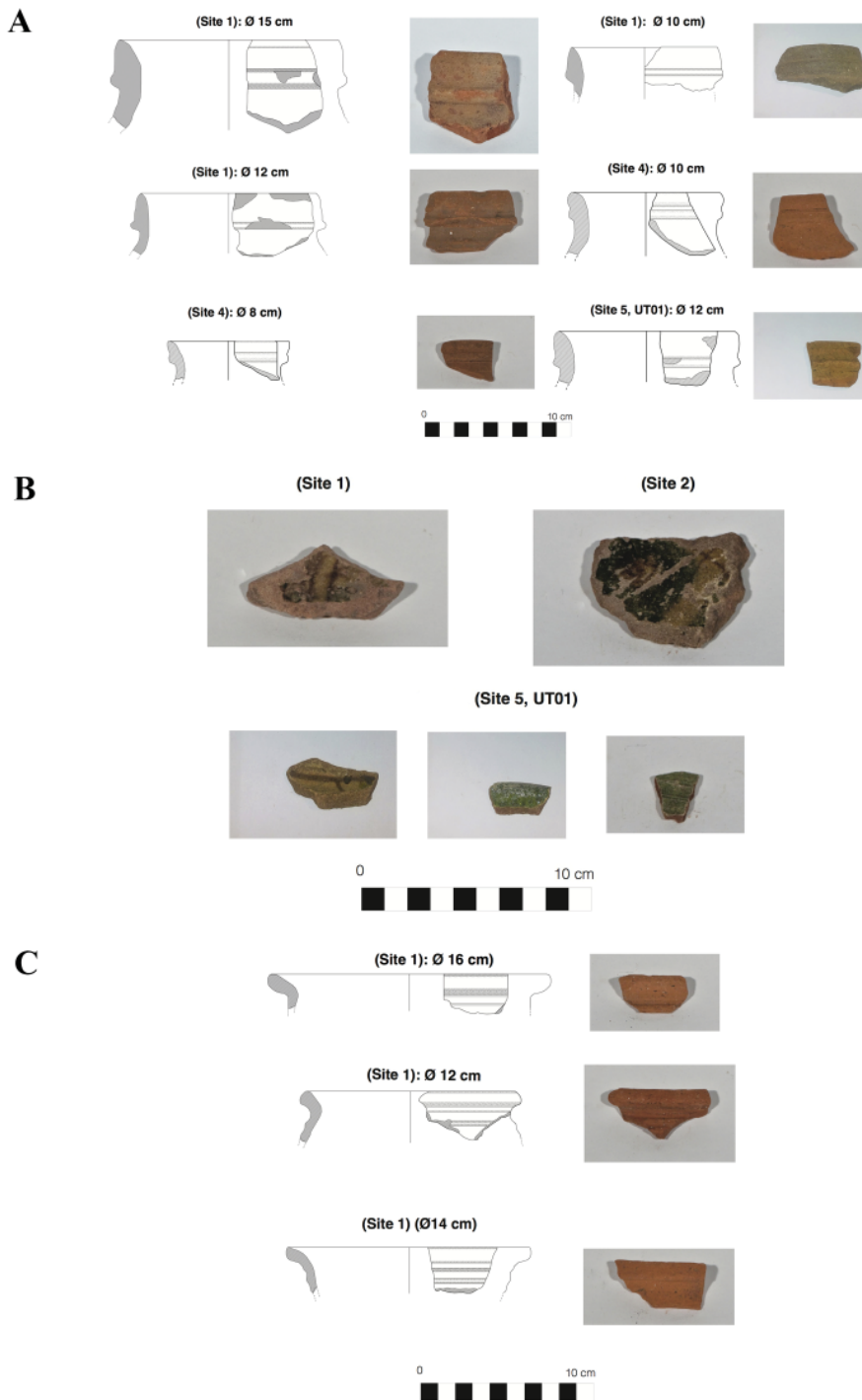


Figure 8. A) Sherds of amphorae with folded, vertical and ribbed rim; B) Fragments of globular pots with everted rims and grooves on external body surface; C) Fragments of transparent-glazed pottery with green and brown decorations and green glazed pottery.

Site 10 is located in the north-eastern part of the estate. During the first survey it was completely covered by thick vegetation. After clearing the area of bushes, we were able to identify a large enclosure made of dry limestone walls (1.5 m in height and 1 m thick), protecting an irregularly quadrangular room (accessible by

technique is characterized by dry stone walls (Figure 10).

On top of the same relief where Site 13 was situated, but towards the south, we identified several piles of hewn stones (Site 14), probably resulting from the clearing of the ground in



Figure 9. On the left, a detail of the rectangular room of a large sheepfold; on the right, the circular base of a small tower of the mannara (Site 10).

a small opening on the eastern side). Slightly uphill with respect to this enclosure we observed a circular tower-like structure with dry stone walls, with a preserved height of about 2 m and an entrance on the south side. We have proposed that the structure is a *mannara*, but further study is needed to better understand the infra-site organization of the spaces and the functionality of each structure (Figure 9).

On the north side of a plateau on top of a relief west of Monte Barraù, close to the *trazzera* (dirt road), we discovered another enclosure (Site 13). As in the case previously described, the enclosure protects a smaller chamber, and the building

order to facilitate animal grazing. In the area, we also localized the remains of some shepherd shelters, known as *pagghiari*; they have similar characteristics: a circular shape, an entrance from the northwest and dry-stone walls. In this kind of structure, the lower part of the hut is made of stones, while the higher part of the walls and the roof are made of perishable materials such as wood, earth and straw (Figure 11).

At the foot of the south-western slopes of Monte Barraù and south of the ruins of Casa Paternostro (named after the baronial family

who owned the main *baglio/masseria*⁹ of the area), there is another large enclosure (Site 15) with a smaller square chamber attached to the south-western side of the enclosure. The whole structure is built with the same construction technique: limestone walls without mortar, with rubble filling (the sections of the walls are approximately 1 m) (Figure 12).

5. Discussion: the long occupation of a Sicilian rural landscape

This preliminary field research serves as an initial contribution to the understanding of the long-term settlement dynamics of the Monte Barraù area. The archaeological potential uncovered in the surface surveys permits us to outline a number of considerations relevant to future research in this area. A first phase of occupation below the slopes of Pizzo Castro in prehistoric times (Middle Eneolithic/Bronze Age) was followed by the settlement of the plateau on the small hill south of the Giardinello river in the Classical age. No evidence of settlement centres was found for the Roman period; this fact could lead us to assume that this small portion of land may not have been fully inserted within the main communication arteries and was little used for the building of residential structures or cultivation of agricultural crops, though we cannot exclude that the area was used for lumber harvesting and seasonal sylvo-pastoral activities. We cannot exclude the presence of pre-existing Roman structures below the medieval sites or at the edges of the study area either. This possible chronological gap, however, could be clarified by enlarging the study area and comparing the settlement models of the ancient era in the Monti Sicani sector.

⁹ A *baglio/masseria* is halfway between a sort of castle and a farm; it is the centre of concentration of agro-pastoral production and it is controlled by a landlord.



Figure 10. Detail of the dry stone wall from the mannara (Site 13).

The data gathered do not permit us, at the moment, to understand the transition dynamics from Late Antiquity to the Early Middle Ages (an overview of the general tendencies in Sicily can be found in PENSABENE, 2010; MOLINARI, 2009 and 2012; CASTRORAO BARBA, 2015) due to a lack of material evidence. The surveys instead show an intensification of human presence in a period identifiable between the 10th and the 12th century AD, a period including the late stages of Islamic rule and the Norman period. At the present state of the studies, the material aspect of these types of rural sites in western Sicily is not well understood¹⁰; their appearance in an area

¹⁰ To date, the excavation of a fortified granary from the Islamic period at Pizzo Monaco on the Monti di Trapani is



Figure 11 The base of a circular hut, pagghiaro, used as a seasonal shelter by shepherds (Site 14).

with little or no exploitation in previous centuries could indicate new settlement strategies that were perhaps related to new agricultural practices¹¹ connected to a greater and more

unique (ROTOLO and MARTIN CIVANTOS 2013), whereas the 10th to 13th century AD contexts are better known, including the elevated sites at Brucato (PESEZ, 1984), Calathament (LESNES and POISSON, 2013), Segesta (MOLINARI, 1997b), Entella (CORRETTI, 2002; CORRETTI *et al.*, 2004) and lato (ISLER, 1995), open villages (*casali*) at the villa del Casale di Piazza Armerina (PENSABENE, 2010), Caliaata a Montevago (CASTELLANA, 1992) or the recent village in Colmitella a Racalmuto, occupied between the Byzantine and Norman periods (RIZZO *et al.*, 2012). On settlement patterns in the Sicilian countryside between the 10th and 13th centuries AD, see MAURICI, 1992; MOLINARI, 2004 and 2010; NEF and ARDIZZONE, 2014.

11 The so-called “green revolution” or Islamic “agricultural revolution” (intensive irrigated agriculture and the introduction of new species, see WATSON, 1983 (in general) and, for Sicily, BARBERA, 2000; MOLINARI, 2010: 231-232; TRAMONTANA, 2014: 102-162) is mentioned in written sources beginning in the 10th century (IBN HAWAQL, *Libro delle vie e dei reami*, in Amari M. 1880-1882, *Biblioteca arabo-sicula*, Turin-Rome), though archaeological findings, such as *vasi da noria* (ARCIFA,

1998: 93, fig. 4, tab. 1-7; ARCIFA and LESNES 1997: 411, fig. 3.5; ARCIFA, 2010: 124) or the hydraulic infrastructure of the *qanāt* type (BIANCONE and TUSA, 1997), remain more ephemeral.

«Water from streams, rivers, springs and wells – to which access rights were an important issue – was directed through ditches and channels which criss-crossed the countryside, supplying the fields, population and many watermills and market gardens... Terms of reference to hydro-technologies account for surviving Sicilian dialect terms of Arabic origin too. Examples which have not become entirely obsolete include, *gattuso* (from the Arabic *qadūs*, referring to an interconnecting, ceramic section of a water conduit); *saia* (a water channel from the Arabic *sāqiya*); and *gēbbia* (Arabic *jābiya*, an artificial reservoir). The Islamic period also witnessed the introduction of new crops and plants, such as citrus fruits and date palms. Henna for dyeing was attested around Partinico and in western Sicily; mulberry trees on which silkworms fed were not uncommon. In addition, we find sumac seeds for cooking and tanning, as well as sugar cane. At Palermo, Ibn Óawqal had admired the papyrus plants which were cultivated within the city and used to manufacture rope and, more importantly, high-quality paper rolls for the administration. These, the first paper documents to be attested in medieval Europe, were technologically advanced, but were too fragile to stand the test of time» (METCALFE, 2009, p. 64).



Figure 12. Dry stone walls from the mannara near Casa Paternostro (Site 15).

systematic exploitation of the many water sources present just a short distance from the sites. The discovery of amphorae, glazed pottery tableware and glass is an additional factor for characterizing the nature of these sites as places of agricultural production situated within commercial networks through which they could access goods from the major neighboring towns or coastal cities. The stratigraphic investigation of site 5 (10th-13th century), the most promising for its dominant topographical position¹² and the wealth of materials found on its surface, could greatly enrich our knowledge about the rural world of the Islamic and Norman periods, providing an opportunity to understand the spatial, social and productive dynamics of farming communities in a period of rapid transition between different economic and political systems.

The exploitation of this area by rural communities did not cease with the abandonment of medieval settlements, as is evidenced by concentrations of materials. At a time which is difficult to define within a precise span, but

12 This site shows a direct visual connectivity with the nearby Castellaccio di Campofiorito (approx. 3 km away), a medieval castle (12th-15th century) built on top of a hill occupied by an ancient indigenous settlement (7th-6th century BC) and also frequented in Roman times (1st century BC-1st century AD) (GRADITI and VASSALLO, 2010).

presumably between the 18th century and the first half of the 20th century, the area was used for forestry and pastoral activities within a road axis – *trazzera* – for transhumance along which various pens— *mannare* —for sheltering animals are located. This type of structure presents a layout of several enclosures made from dry stonework bases with brambles or spiny branches of gorse or blackthorn placed on top; the different pens were used to separate cattle by age and condition, while other smaller areas could serve as places for shearing and dairy production (GIACOMARRA, 2003: 78-79; 2006: 61-62). Small, often circular structures made with the same technique of dry stone walls and roofs covered by grasses and shrubbery arranged in interwoven branches—so-called *pagghiari*—were temporary housing for shepherds along these paths of transhumance (GIACOMARRA 2003: 80-81; 2006: 67-68).

6. Concluding remarks: towards a holistic approach to studying historical landscapes over the long-term

The assessment of the historical and archaeological potential of the Monte Barraù/Contrade Castro and Giardinello area is a prerequisite for setting up a working agenda focused on the landscape seen as a palimpsest of interactions between ecological dynamics and human processes over the long term.

In a multi- and inter-disciplinary perspective, different sources for the reconstruction of environmental and human history of this rural district will be integrated:

- Archaeological research: planning stratigraphic excavations in order to understand chronology, function, topography of the sites identified by the field survey.

- Archival research: the study of written and documentary sources (e.g., 18th-19th century Bourbon registries) aimed at reconstructing the agricultural history of the area under study;
- Study of historical maps: analysis of historical maps between the early 1800s and the first half of the 1900s in order to identify changes in road networks, place names and the morphology of the area;
- Landscape classification: analysis of landscape structure using vegetation series as a key to understanding the relationships between environmental characteristics, land use and ecological dynamics;
- Diachronic analysis of aerial photos: comparison of images produced during flights in the 1950s and today to assess changes in agricultural land use, vegetation cover and human settlement that have influenced the formation of the present landscape.

Overcoming a site-centric vision towards a contextual and landscape approach will be decisive for set up a holistic narrative of the diachronic dynamics between human societies and the environment of Central-Western Sicily as part of Mediterranean rural history.

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