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Pisa South Picenum Survey Project II: Raw and Interpreted data

Abstract

This paper concerns the methods used, and some of the results obtained, in the *Pisa South Picenum Survey Project*. This study is being carried out in the low and high Tenna and Aso River Valleys, between the Adriatic Sea and the Sibillini Mountains (the Marche Region). These territories were first inhabited by the Picenes and subsequently belonged to the Latin colony of *Firmum Picenum* (264 BC) and to the *municipium* of *Novana*.

Zusammenfassung

Rohdaten und Interpretationen zum Pisa South Picenum Survey Project II

Dieser Beitrag behandelt die beim *Pisa South Picenum Survey Project* angewandten Methoden sowie einige der damit erzielten Ergebnisse. Das Projekt untersucht die niederen und höheren Tallagen der Flüsse Tenna und Aso, die zwischen der Adria und den Sibillinischen Bergen (in der Region der Marche) liegen. In diesem Gebiet saßen zuerst die Picener, danach gehörte es zur lateinischen Kolonie *Firmum Picenum* (264 v. Chr.) und zum *Municipium Novana*.

Introduction

This paper concerns the methods used, and some of the results obtained, in the *Pisa South Picenum Survey Project*, which is being carried out in the lower and higher Tenna and Aso river valleys, which lie in the Marche region between the Adriatic Sea and the Sibillini Mountains (the Marche region, Fig. 1)¹.

The project is interdisciplinary and has a diachronic perspective. As regards the raw data, rigorous standards are applied to the fieldwork and the artefact collection and documentation. Below, I will outline the cognitive process leading from raw to interpreted data, and in particular the procedures employed in improving the epistemological value of the plough soil findings, and filtering out bias as much as possible.

Some of the interpreted data will then be presented, in particular the settlement patterns resulting from the Romanization process in these Valleys.

Das Projekt ist interdisziplinär angelegt und verfolgt eine diachrone Betrachtungsweise. Hinsichtlich der Rohdaten werden rigorose Standards eingehalten, sowohl bei der Tätigkeit im Feld wie auch bei der Bergung und Dokumentation der Funde. Ich werde hier versuchen, den Erkenntnisprozess zu umreißen, der von den Rohdaten hin zu den interpretierten Daten führt. Dazu gehören insbesondere jene Verfahren, die angewandt werden, um den epistemologischen Wert der aus dem Pflughorizont geborgenen Funde zu verbessern und Verzerrungen so weit wie möglich herauszufiltern.

Zusätzlich wird eine Auswahl der interpretierten Daten präsentiert, vor allem die Siedlungsmuster, welche mit dem Romanisierungsprozess in diesen Tälern in Verbindung stehen.

Following the example of the major Mediterranean research teams, such as the *Boeotia Survey Project*², the project applies an intensive survey strategy which is based on a 'global archaeology' approach. This implies that it takes into consideration all kinds of available sources³ and technical applications (geophysical prospections, aerial photographs, LIDAR analysis), and that it employs a diachronic

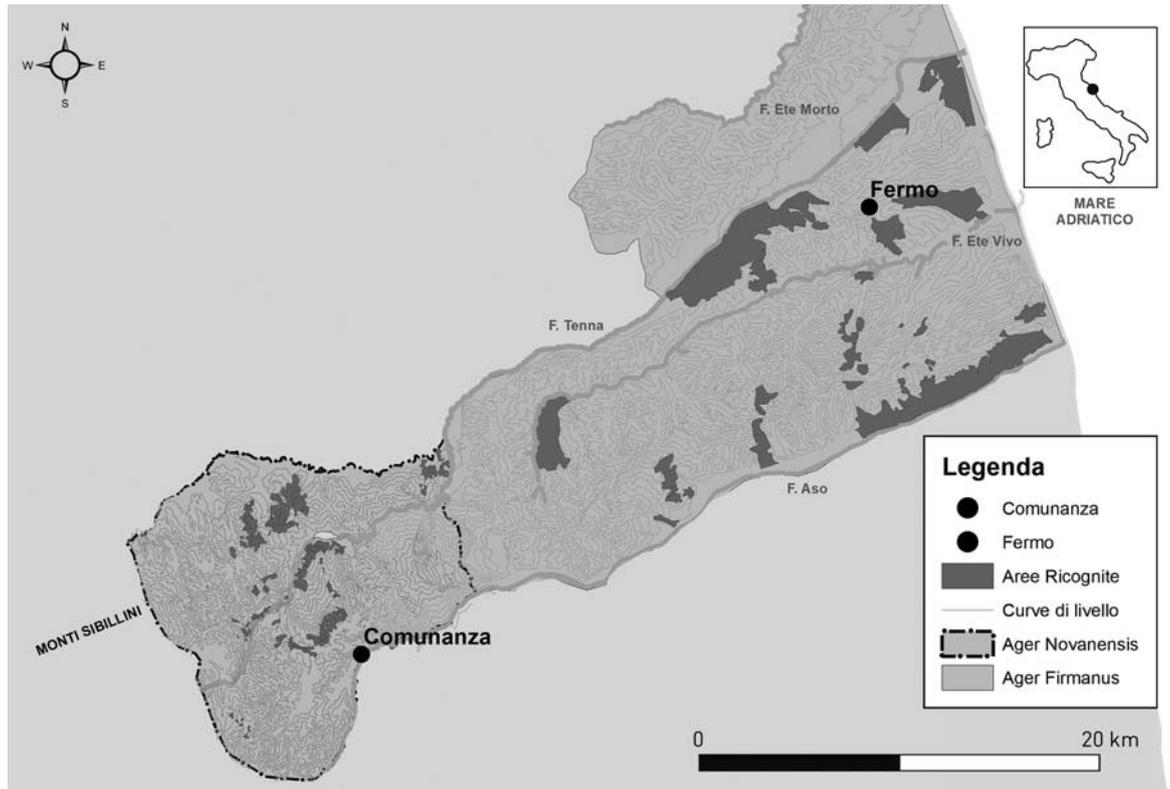


Fig. 1 The study area.



Fig. 2 An example of the erosional processes in the ager Novanensis (Amandola area).

perspective extending from Prehistory to the Middle Ages⁴.

The theoretical strategy is site-oriented, including site typology and hierarchy, but we also consider landscapes in their entire complexity, trying to envisage the continuum between towns, small hamlets, and any evidence of anthropic activities (even if it is ephemeral) which can be identified and documented by off-site surveys⁵.

The general strategy of the project closely follows the principles of processual archaeology, but a broad and flexible approach is adopted in order to avoid the excesses of both processual positivism and post-processual subjectivism⁶, therefore we try to reconstruct both landscapes and mindscapes⁷. In this paper, I will try to outline the cognitive process which leads from raw to interpreted data, particularly the procedures employed in improving the epistemological value of the plough soil findings and the filtering out of bias. This will help to better understand the data and methodologies from which our proposed reconstructions of changing landscapes have been derived⁸.

In my opinion, a clear description of the objective and subjective standards used for such general reconstructions is the only way to permit the research results from a given district to be utilized for comparisons and large-scale analyses over time and space⁹.

Gathering raw data

Before starting with the actual field-work, we will have to face the problem of *archaeological visibility*¹⁰. Obviously, we survey terrain which corresponds at least roughly to the surface of the ancient-medieval period. This ensures that the results of our survey are not biased, especially by geomorphological factors.

Consequently, geological analyses are an essential tool, as are those interdisciplinary techniques and sources which can be used to document natural agencies (mainly erosional (Fig. 2) and depositional processes) and/or anthropic events which could have destroyed or concealed parts of the ancient landscapes.

Given a sufficient geomorphologic visibility, ploughed fields offer the highest level of archaeological visibility, while a great number of factors (vegetation cover, tillage activities, abandoned land, buildings, infrastructures and so on) hinder complete legibility of the terrain and the detection of possible sites or off-sites. Obviously, we take these different conditions of archaeological visibility into account

when interpreting the results of the site/off-site distributions¹¹.

As the regions which are being studied cannot be surveyed in their entirety due to the high costs involved and the time required, the *sample area strategy* is one of the approaches most frequently dealt with in relevant literature¹².

In this project, the sample areas to be surveyed were selected on the basis of different geomorphologic and environmental units (valley floors, hilly and mountainous areas), and particularly with regard to interesting historical-topographical situations (ancient road systems, centuriation, etc.)¹³.

In order to ensure a tenable representativity of the results, the sample areas are extensive. They do not have the regular geometric form of the transects applied in the more rigorous Processual Archaeology projects¹⁴, but rather an irregular outline based on the geomorphologic and topographic peculiarities of the soils.

With regard to actual *fieldwork*, we apply diligent procedures¹⁵: empirical results have convinced us that 5 m intervals are the optimum distance for documenting this territory (Fig. 3). A survey with larger intervals would be faster (and cheaper in economic terms), but there would be a risk of not registering prehistoric flints, many off-sites, and smaller sites such as the typical *Piceni* farmsteads¹⁶.

The fieldwalking teams are usually formed of five people (basically the crew of a car) who will have different levels of survey experience and knowledge of pottery. As varying abilities in identifying and picking up materials may produce a bias in the survey results¹⁷, we try to balance the presence of beginners and experienced fieldwalkers¹⁸.

During a survey, the concentration zones identified in the field are usually considered as sites and sporadic or scattered material as off-sites. Both receive the identification mark of *Unità Topografica* and are localized on cadastral (1:10.000) and topographical (1:25.000) maps and by means of the GPS system. For each *Unità Topografica* (UT), at least one photo is taken and one form is filled in¹⁹; using its identification mark, each UT's documentation is then linked with the GIS²⁰.

Regarding the *strategies for collecting artefacts*, our approach is flexible in that it is carried out according to the characteristics of the given assemblage. Obviously, the main bulk of the surveyed finds is represented by ceramics, as other materials (such as metal, glass, wood, leather, or wicker) have a low survival index²¹. As they are generally scarce, all the pottery



Fig. 3 Survey in progress in Amandola area.

objects on off-sites and Prehistoric, Protohistoric, Picenian and Early Medieval sites are picked up.

On Roman and/or Romanized sites, which usually have more abundant ceramics, we collect all the sherds belonging to the diagnostic classes²², as they are light and easy to transport and have a high informative potential. As regards cooking and coarse pottery, or *amphorae* and *dolia*, we gather the diagnostic parts (rims, handles and bases), as well as those 'shapeless' sherds which show noteworthy technical features (for example, a fabric not documented in other finds). As far as building materials are concerned, we collect all those items which can be utilized for typological/functional and technical classification. Insignificant items are merely counted and left in the field²³.

Studying ceramics through quantitative and qualitative analyses

For any site or off-site, we try to calculate the minimum number of ceramic vessels. As is well known, there is no single ideal quantification procedure²⁴, and so we try to combine different methods. We apply the 'classical' EVE practices to fragments of rims and bottoms²⁵, but we also consider handles and every fragmented part of a vessel. These are grouped together according to similarities in morphology, size, and technical characteristics (fabrics, treatment of the surface etc.), and on the basis of this careful analysis, some sherds can be attributed to the same vessel or to other individual fragments. These decisions are obviously subjective, as they are based on the specific competences of the archaeologists with regard to

ceramics. Yet in spite of the need to take such potential distortions into account, the general trends should still be sufficiently reliable.

In addition to the quantitative data, we also consider some diagnostic elements as qualitative evidence, e. g. mosaic *tesserae* and fragments of frescoes (which can help in identifying a *villa*), or black-glaze pottery (which can often mark colonial farmsteads or, in all cases, ‘Romanized’ sites).

Dealing with pottery: informative potential and interpretative distortions

It is well known that ceramics provide information for a number of different approaches, not only for chronology, technology, and function, but also for cognitive, social, and economic matters²⁶. But we have to bear in mind that surveyed finds are the results of many stochastic processes, first of all because pottery is over-represented in comparison with other materials which degrade more easily²⁷, and also because each ceramic class has different survival standards²⁸. Roman pottery is the most resilient, while *Piceni impastos*²⁹ and Late Roman wares are weaker and therefore more liable to destruction by attrition processes. Therefore, such ceramics have to be handled with care, and we have to ask ourselves if the lacunae in our distribution maps correspond with the real historical situations.

Other biases can derive from giving too much importance to the Mediterranean distribution classes (e. g. black-glazed pottery, Italian, Eastern, and African *terra sigillata*). These are rightly utilized to date sites, but their absence should not influence aprioristically their chronology: a context without African Red Slip D need not necessarily have been abandoned in the Late Roman period, as a general model of pottery distribution need not be applicable to the whole Romanized world.

In order to date the sites, more reliable chronological elements can be derived from the careful study of local and regional production, for example of cooking and coarse wares.

Moreover, ceramics should be considered not only for their functional, technical and social aspects, but also for their sentimental value³⁰. In fact, when we use ceramics to date contexts, we need to consider their *long life-cycle*, which includes the obvious phases (production – distribution – consumption – discard-

ing), but other possibilities as well: on the one hand, recycling and reuse for other functions and purposes, or the transformation into treasured heirlooms, and on the other, deliberate destruction or abandonment³¹. Bearing all of this in mind, any reliance on the chronology of a single object could be misleading when dating a site: the correct procedure should be to compare the average chronology of all the finds. A flexible gap should be applied in any case, in particular where the final phase of the site is concerned.

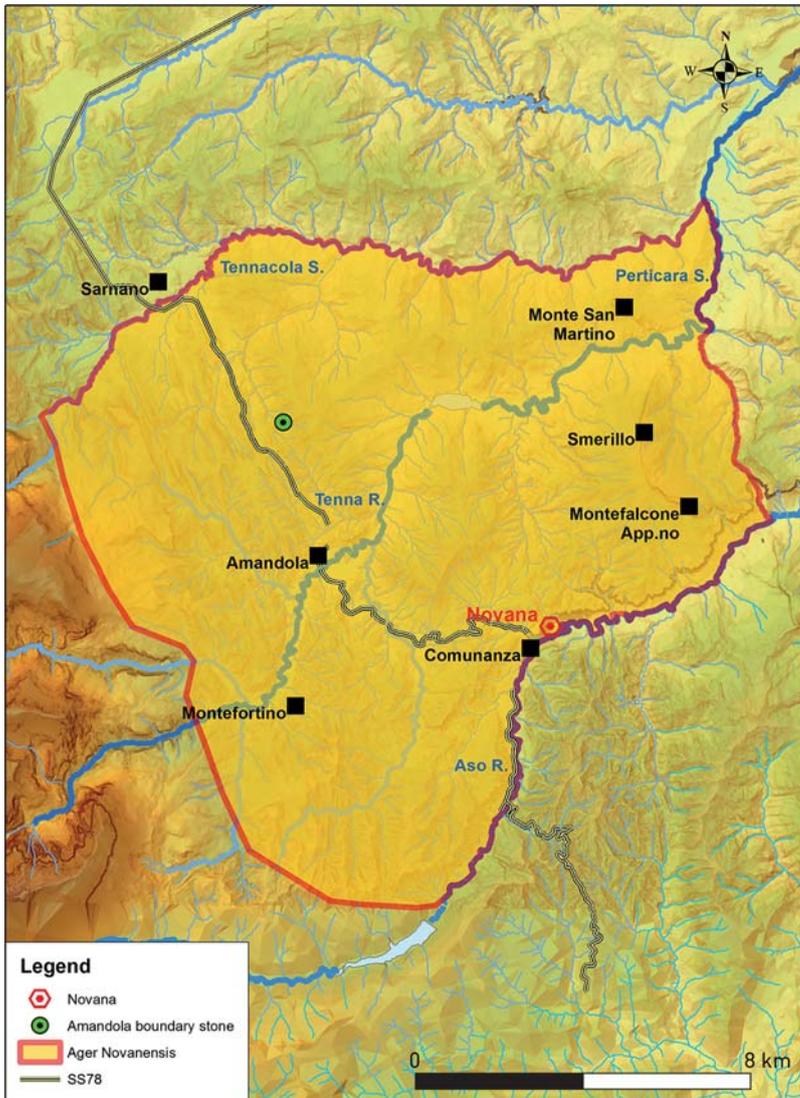
Using survey data to reconstruct ancient landscapes

Once the fieldwork has been carried out, the critical and central topic in a project is how the survey data can be used to reconstruct the ancient landscapes. Quantitative and qualitative criteria (the dimensions of the assemblages in square metres, the minimum number of items, the localisation and the characteristics of the findings, and so on) are utilized in order to *classify sites and off-sites*, placing them in cultural-historical-functional categories (Picenian rural site, Roman villa, non-datable hut used by transhumant shepherds)³².

For this classification, apart from utilizing the collected documentation as carefully as possible, we should also keep in mind *what is missing*. Consequently, we should analyse all the available sources in order to correct the possible bias arising from low-visibility sites or the absence of particular categories of materials³³.

Obviously, classifying and interpreting sites and off-sites is the most difficult (but also creative) task facing archaeologists, who have to balance the objectivity of the data and their own subjectivity. This in turn will obviously be based on their extensive experience and knowledge; in any case, interpretative challenges are necessary in order to extract meaning from the survey data³⁴.

There is no danger of the interpretations damaging the raw data (whether derived from surveys or from any other type of source) as long as the latter have been acquired using a rigorous methodology and these procedures are clearly explained. In this case, the raw data will be easily distinguishable from the interpretative superstructure. This will ensure that they remain available for large-scale comparisons and, most importantly, for other scholars’ interpretations.



The interpreted data

After this necessary methodological prologue, I would now like to consider some case studies from the Tenna and Aso valleys, highlighting the cognitive processes by means of which we started from plough soil assemblages to arrive at some possible reconstructions of ancient landscapes and their chronological evolution from the Picenian phase to the Early Middle Ages.

In the survey sample areas of both the middle and lower valleys and the inland districts (respectively the Fermo and Comunanza districts), we were able to identify numerous ploughsoil assemblages (covering, on average, 600 m²) which included 3rd–2nd century BC Roman artefacts (Fig. 4). Thanks to these quantitative and qualitative datasets and the location of the assemblages in areas which are well suited for cultivation, we were able to interpret them as farmsteads. Further qualitative evidence among this material – that is, specific artefacts (cutaway tiles typical of Roman army contexts, black glazed vessels, Latian-Campanian common vessels) – led us to classify them as colonial farmsteads.

Having found numerous sites characterized by the presence of late Picenian and Roman ceramics in both districts, we ultimately interpreted them as rural sites inhabited by a native population which was acquiring Roman technology and lifestyles³⁵.

With regard to the lower to middle valleys, it was not too challenging an exercise to interpret this settlement pattern, as the farmsteads classified as ‘colonial’ and ‘Romanized’ were found in the territory of Firmum which, as is well-known, was a Latin colony founded in 264 BC³⁶.

On the other hand, as concerns the inland district, our interpretation of both the Romanized late Picenian sites and the Roman farmsteads is particularly significant, as there had not previously been any data on the systematic occupation in this area by the Romans in the 3rd–2nd centuries³⁷. The district lies at the foot of the Sibillini Mountains, where the Tenna and Aso Rivers have their sources, and is characterized by foothills which are mainly wooded and uncultivated, and to the east, by rounded hills, which are exploitable for agricultural activities (Fig. 5 and 6). In any case, the interpretation of the farmsteads in this area was supported by solid evidence: they were well integrated in a Roman landscape, as shown by the systematic centuriation grid (of 200 iugera for each centuria), which is sufficiently preserved in this district (Fig. 7), in contrast to the Firmum territory



where the remains of the Republican centuriation are very faint.

As this territory did not belong to a colony or to another urban centre, we interpreted this agrarian intervention as a viritane centuriation, and by combining the archaeological and topographic evidence with the historical and literary data, we were able to link it to the *lex de agro Gallico et Piceno viritim dividundo* whose adoption in 232 BC was effected by *Gaius Flaminius*³⁸.

This allowed us to interpret the centuriation and its viritane allotments as an application of this law.

On the basis of the survey-derived data, the rural site distribution within the *centuriae* is fairly concentrated. In some cases, there were up to five farmsteads in the same *centuria* (even if they had not been completely surveyed), and consequently, we can presume that the assigned properties were certainly no larger than 40 *iugera* each).³⁹ This hypothesis can be supported by a literary source: with regard to the land distribution to Scipio's veterans in 201 BC, Livy (31, 49, 5) states that each of them received a *duo iugera* allotment for each year of military service. Thus, we know that allotments were generally not very large in the 3rd–2nd centuries BC, but in accordance with the usual practice⁴⁰, settlers could supplement the produc-

tion of their farms by exploiting unassigned sectors of the *ager publicus* (for hunting and fishing, gathering wood and wicker, seasonal cultivation, livestock breeding). As mentioned above, urban centres do not appear to have been documented for this district in the 3rd–2nd centuries BC. On the other hand, Pliny would place the *municipium* of Novana in roughly this area, as the Picenian inland territory, which lay further inland than Asculum: “*Cupra oppidum, Castellum Firmanorum et super id colonia Asculum, Piceni nobilissima, intus Novana, in ora Cluana*”⁴¹. This *municipium* was only mentioned by Pliny, and does not subsequently appear in any other type of source. Viritane allotments scattered throughout the countryside had to belong to a settlement centre which would guarantee Rome's control in carrying out censuses, army recruitment and the administration of justice, as well as facilitating economic-social activities (periodic markets, religious feasts and so on); therefore it needed to be well connected to the main road system. These kinds of settlements were defined by the Romans as a *conciabulum*, *vicus* or⁴², but without literary and/or epigraphical evidence, these administrative terms cannot be applied to specific sites.

In this mountainous district, the most suitable place for a settlement centre displaying the above men-

Fig. 4 A colonial farmstead in the *ager Novanensis* (Amandola area).

Fig. 5 Novana and its territory.

Fig. 6 The piedmont district.

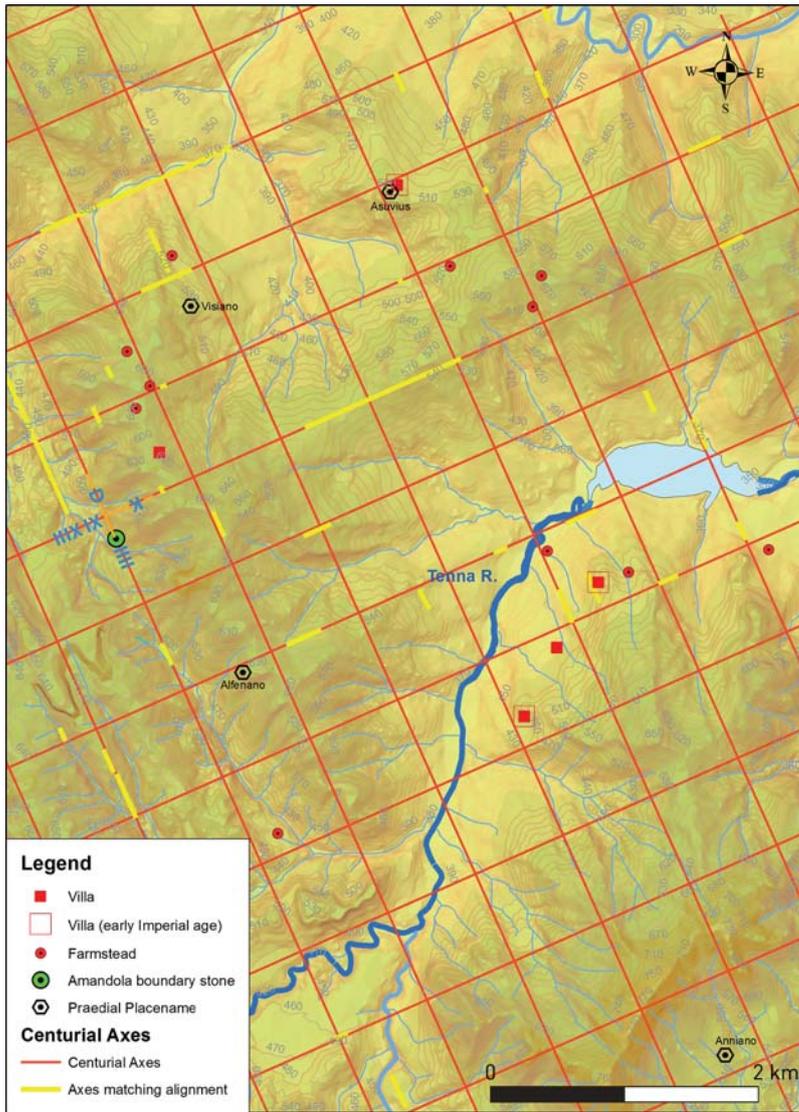


Fig. 7 Rural sites in the centuriated area of the ager Novanensis (Amandola area).

tioned characteristics was in the area corresponding with modern Comunanza, which is situated on the bottom of a valley which cuts a plateau on the left bank of the River Aso. It lay at the intersection of some natural tracks which later became important roads which are still being used today (the Via Salaria Gallica SP 78 from Ascoli to Macerata along the inland hills; the SP 238 from the Sibillini Mountains to the Adriatic Sea).

A great number of archaeological findings have been documented in the Comunanza area: wealthy Picenian necropolises, objects typical of the colonial period, and Roman buildings (domus, baths, a sanctuary) belonging to an inhabited settlement centre⁴³. According to this raw data, the Comunanza site appears to have been an important Picenian centre,

which was progressively romanized until it became a Roman settlement. It could have formed an administrative centre – most probably a *forum/praefectura* – for the colonists who lived in the farmsteads scattered throughout the countryside.

From 90 BC on, the municipalisation process would engulf the entire Italian peninsula, including *Picenum*, at various times and in different ways. Consequently, the above settlement would have been set to become a *municipium*, which a somewhat speculative interpretation might identify with Novana, as it is the only urban centre mentioned for this district in Roman times⁴⁴.

The relationship between Novana and the settlement patterns in its countryside is confirmed by the fact that they shared the same fate with regard to their phases of decline and ultimate disappearance. Apart from Pliny's reference, the settlement was not mentioned by any other source⁴⁵, and the rural sites were progressively abandoned in the late 1st–2nd centuries AD according to the survey data.

This general crisis was most probably due to structural changes in land use which we were able to outline by means of literary, epigraphic, and toponymic sources⁴⁶. In our reconstruction, large parts of the *ager publicus* were occupied by a few rich gentes for intensive livestock breeding in the Early Imperial period, and this provoked a crisis in the agrarian system which impacted the complementary relationship of the small allotments and the community use of the unassigned land. As a result, the surrounding landscape changed: the settled farmers were replaced by transhumant shepherds, and Novana lost its function as the local administrative centre.

In conclusion, the transformation of the raw data (not only survey-derived, but also natural, archaeological, literary, epigraphic, and toponymic information, etc.) into interpreted data is a complex and risky process. In any case, by applying a global approach combining all available categories of information, it is possible to obtain reliable results, or at least reliable trends for the reconstruction of ancient landscapes.

Endnotes

¹ The project is financed by the University of Pisa and the Fondazione Cassa Risparmio di Fermo. See S. Menchelli, *Paesaggi piceni e romani nelle Marche meridionali. L'ager Firmanus dall'età tardo-repubblicana alla conquista longobarda* (Pisa 2012). – S. Menchelli/E. Iacopini, *Novana, its territory and the*

Pisa South Picenum Survey Project II. *Fasti Online Documents & Research* 353, 2016, 1–20 (<http://www.fastionline.org/docs/FOLDER-it-2016-353.pdf>).

² J. L. Bintliff/P. Howard/A. M. Snodgrass/O. T. P. K. Dickinson (eds.), *Testing the Hinterland: The Work of the Boeotia Survey (1989–1991) in the Southern Approaches to the City of Thespias*. McDonald Institute Monographs (Cambridge 2007).

³ Natural, literary, archaeological, epigraphic, toponymic, and historical cartography data.

⁴ For the approach see S. Menchelli, *Ploughsoil Assemblages and Beyond: Some Interpretative Challenges*. In: G. L. M. Burgers/S. J. Kluiwing/R. A. E. Hermans (eds.), *Multi-, inter- and transdisciplinary research in Landscape Archaeology*. Proceedings of the 3rd International Landscape Archaeology Conference LAC2014 (Amsterdam 2016) DOI 10.5463/lac.2014.44, <http://www.lac2014proceedings.nl>.

⁵ M. Pasquinucci/S. Menchelli, *Surveying the complexity: a global approach to Italian Landscapes*. In: W. Bebermeier/R. Hebenstreit/E. Kaiser/J. Krause (eds.), *Landscape Archaeology*. Proceedings of the International Conference Berlin 6th-8th June 2012. *eTopoi. Journal for Ancient Studies Spec. Vol. 3*, 2012, 101–105 <http://journal.topoi.org>.

⁶ J. L. Bintliff/M. Pearce (eds.), *The death of the Archaeological Theory? Oxbow Insights in Archaeology 1* (Oxford 2011).

⁷ See for example the study about the stratification of sacred landscapes in the Monti Sibillini area: Menchelli (Endnote 4) 3 and quoted bibliography.

⁸ For the relationship between raw and interpreted data see also: R. Witcher 2012, “That from a long way off look like farms”: the classification of Roman rural sites. In: P. Attema/G. Schörner (eds.), *Comparative issues in the Archeology of the Roman Rural Landscape*. *Journal Roman Arch. Supp. Ser. 88* (Porthsmouth/Rhode Island 2012) 11–30.

⁹ For this topic, see in general: S. E. Alcock/J. F. Cherry (eds.), *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World* (Oxford 2004); for an example of comparative research about the Roman Italy see: A. Launaro, *Peasants and slaves. The rural population of Roman Italy (200 BC to AD 100)* (Cambridge 2011).

¹⁰ This topic has been treated in depth in the last decades, starting with: N. Terrenato/A. Ammerman, *Visibility and site recovery in the Cecina Valley Survey, Italy*. *Journal Field Arch.* 23.1, 1996, 91–109. – See, among others: R. Francovich/H. Patterson (eds.), *Extracting Meaning from Ploughsoil Assemblages*. *Arch. Mediterranean landscapes 5* (Oxford 2000). – A. Casarotto/T. D. Stek/J. Pelgrom/R. H. van Otterloo/J. Sevink, *Assessing visibility and geomorphological biases in regional field surveys: The case of the Roman Aesernia*. *Geoarch.* 33.2, 2018, 177–192. DOI: 10.1002/gea.21627.

¹¹ S. Menchelli, *Surface material, Sites and Landscape in South Picenum (Marche, Italy)*. In: H. Vanhaverbeke/J. Poblome/M. Waelkens/F. Vermeulen/R. Brulet (eds.), *Thinking about Space. The potential of surface survey and contextual archaeology in the definition of space in Roman times*. *Stud. Eastern Mediterranean Arch.* 8 (Turnhout 2008) 31–43. – Menchelli (Endnote 1) 16–21.

¹² An extensive bibliography has been collected by: F. Cambi, *Manuale di archeologia dei paesaggi* (Roma 2011).

¹³ Similar decisions were made regarding the Potentia Valley and the territory of Aesernia: see respectively F. Vermeulen, *The integration of survey, excavation and historical data in northern Picenum*. In: P. Attema/G. Schörner (eds.), *Comparative issues in the Archeology of the Roman Rural Landscape*. *Journal Roman Arch. Supp. Ser. 88* (Porthsmouth/Rhode Island 2012) 43–53. – T. S. Stek/E. B. Modrall/R. A. A. Kalkers/R. H. van Otterloo/J. Sevink, *An early Roman colonial landscape in the Apennine mountains: landscape archaeological research in the territory of Aesernia (Central-Southern Italy)*. *Analysis Arch.* 1, 2015, 229–291, 239–240.

¹⁴ For the criteria, see J. L. Bintliff, *The concepts of ‘site’ and ‘off-site’ archaeology in surface artefact survey*. In: M. Pasquinucci/F. Trément (eds.), *Non-Destructive Techniques Applied to Landscape Archaeology*. *Arch. Mediterranean Landscapes 4* (Oxford 2000) 200–215, 201–205.

¹⁵ The association between survey intensity and the density of findings has been recognized for some time, beginning with: St. Plog/F. Plog/W. Wait, *Decision making in modern surveys*. *Advances in Archaeological Method and Theory* 1, 1978, 383–421.

¹⁶ Menchelli (Endnote 11).

¹⁷ M. Given, *Mapping and manuring: can we compare sherd density figures?* In: S. E. Alcock/J. F. Cherry (eds.), *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World* (Oxford 2004) 13–21, 19.

¹⁸ The Pisa South Picenum Survey Project is one of the field-activities being carried out by the Laboratorio di Topografia antica course, which provides many students with their first fieldwork experience.

¹⁹ In Italian: *Scheda di Unità Topografica*: it was one of the flagships of Processual Archaeology in Italy and it records data concerning geomorphology, soil type, land-use, survey methodology, visibility, concentration extent, finding characteristics, and their chronological range.

²⁰ For our methodology regarding the digital management of information, see: E. Iacopini/L. Cherubini/A. Del Rio/S. Menchelli/M. Pasquinucci, *Il Sistema Informativo Territoriale dell’ager Volaterranus: metodologia e metadati*. In: C. Caciagli (ed.), *Quaderni Laboratorio Universitario Volterrano 15* (Pisa 2012) 55–64.

²¹ For example, in the ager Firmanus survey, apart from stone building materials and fragments of frescoes, 9000 ceramic items have been found and only ten glass and six bronze objects.

²² *Black-glazed and thin-walled pottery, Italian, Eastern and African terra sigillata, lamps*.

²³ Menchelli (Endnote 1) 16–17.

²⁴ See M. Ceci/R. Santangeli Valenzani, *La ceramica nello scavo archeologico*, (Rome 2016) 52–55. – D. Mateo Corredor/J. Molina Vidal, *Archaeological quantification of pottery: the rims count adjusted using the modulus of rupture (MR)*. *Archaeometry* 58.2, 2016, 333–346.

²⁵ C. Orton/P. Tyers/A. Vince, *Pottery in Archaeology* (Cambridge 1993) 172–173.

²⁶ E. Giannichedda, *Chi ha paura dei manufatti? Gli archeologi hanno paura dei manufatti?* *Arch. Medievale* 41, 2014, 79–93. – H. P. Hahn/H. Weiss (eds.), *Mobility, Meaning & Transformations of Things* (Oxford 2013).

²⁷ See above, Endnote 21.

²⁸ Menchelli (Endnote 1) 17 and quoted bibliography.

²⁹ Regarding the difficulty of identifying Picenian sites, see: C. Boullart, Piceni settlements untraceable or neglected. *Picus* 23, 2003, 155–188.

³⁰ A. Depner, Worthless things? On the difference between devaluing and sorting out things. In: Hahn/Weiss (Endnote 26) 78–90.

³¹ See in general: Hahn/Weiss (Endnote 26).

³² The adopted criteria are listed in Menchelli (Endnote 1) 18–21.

³³ Regarding, for example, the scarce presence of *amphorae* in the *ager Firmanus* in the mid-late Roman period, see: S. Menchelli/G. Picchi: Distorsioni interpretative e concretezza epistemologica nello studio delle anfore romane: l'esempio dell'ager Firmanus (Marche meridionali, Italia. *Fasti Online Documents & Research* 353, 2016, 1–20 (<http://www.fastionline.org/docs/FOLDER-it-2014-304.pdf>). – For the absence of Lombard manufactures in the high Aso and Tenna River Valleys, see: Menchelli (Endnote 4) 3.

³⁴ About this topic, see: Menchelli (Endnote 1) 18–22. – G. Volpe/R. Goffredo La pietra e il ponte. Alcune considerazioni sull'archeologia globale dei paesaggi, *Arch. Medievale* 41, 2014, 39–53, 43.

³⁵ Menchelli (Endnote 1); Menchelli/Iacopini (Endnote 1). – S. Menchelli/E. Iacopini, I territori di Firmum e Novana: analisi comparative sulle ricerche in corso. *Picus* 37, 2017, 221–243.

³⁶ Menchelli (Endnote 1) 9–12.

³⁷ There is an abundant bibliography concerning the colonization process. For some of the most recent works see: J. Pelgrom, Colonial landscapes: demography, settlement organization and impact of colonies founded by Rome (4th–2nd centuries BC). Doctoral thesis University Leiden (Leiden 2012) <http://hdl.handle.net/1887/18335>. – T. D. Stek/J. Pelgrom (eds.), *Roman Republican Colonization* (Roma 2014); F. Vermeulen, *From the Mountains to the Sea. The Roman colonisation and Urbanisation of Central Adriatic Italy*. *Babesch Supp.* 30 (Leuven 2017).

³⁸ Among the available texts (Polybius, *Histories*, II, 21, 8; Cicero, *De inventione* II, 52), there are two particularly signifi-

cant passages concerning this law in: Cicero, *Brutus*, 14, 57 (*C. Flaminius, is qui tribunus plebis legem de agro Gallico et Piceno viritim dividendo tulerit, qui consul apud Trasumenum sit interfectus*); and Cato Maior, 11 (... *C. Flaminius, tribuno plebis, quoad potuit, restitit agrum Picentem et Gallicum viritim contra senatus auctoritatem dividunt*).

³⁹ Menchelli/Iacopini (Endnote 1) 6 and 14.

⁴⁰ About this topic, see: E. Gabba/M. Pasquinucci, *Strutture agrarie e allevamento transumante nell'Italia romana (III–I sec. a. C.)* (Pisa 1979).

⁴¹ Pliny, *N.H.* III, 11.

⁴² Regarding the minor settlements, see: M. Tarpin, *Vici et pagi dans l'Occident romain* (Roma 2002). – E. Todisco, La percezione delle realtà rurali nell'Italia romana “i vici” e “i pagi”. In M. Pani (ed.), *Epigrafia e territorio. Politica e società. Temi di antichità romane VI* (Bari 2004) 161–184. – S. Sisani, *In pagis forisque et conciliabulis. Le strutture amministrative dei distretti rurali in Italia tra la media repubblica e l'età municipale*. *Atti Accademia Nazionale dei Lincei. Classe Scienze Morali, Storiche e Filologiche. Memorie ser. IX, vol. 27, fasc. 2* (Roma 2011) 551–780. – R. Brulet, *Les agglomérations: le débat terminologique et le concept*. In: S. Santoro (ed.), *Emptor et Mercator, Spazi e rappresentazioni del commercio romano* (Bari 2017) 315–336.

⁴³ Menchelli/Iacopini (Endnote 1) 15–16, Fig. 12.

⁴⁴ See: Endnote 41.

⁴⁵ An epigraph dated to the 2nd cent. AD. found in Parma (CIL XI 1059) has been related to Novana, but this evidence is not sure. For this topic see: S. Menchelli, *Insedimenti maggiori e insediamenti minori nella complessità dei paesaggi antichi: le vallate dei fiumi Tenna, Ete e Aso (Piceno meridionale)*. In *Archaeologiae. Una storia al plurale. Studi e ricerche in memoria di Sara Santoro*, forthcoming.

⁴⁶ Menchelli/Iacopini (Endnote 1) 15–17.

Credits

1, 5, 6, 7 E. Iacopini

2, 3, 4 S. Menchelli