

# **Agrarian Archaeology in Northwestern Iberia**

**Local societies: the off-site record**

Edited by

**Juan Antonio Quirós Castillo**

**Access Archaeology**





ARCHAEOPRESS PUBLISHING LTD  
Summertown Pavilion  
18-24 Middle Way  
Summertown  
Oxford OX2 7LG  
[www.archaeopress.com](http://www.archaeopress.com)

ISBN 978-1-80327-435-5  
ISBN 978-1-80327-436-2 (e-Pdf)

© The authors and Archaeopress 2023

All rights reserved. No part of this book may be reproduced, stored in retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of the copyright owners.

This book is available direct from Archaeopress or from our website [www.archaeopress.com](http://www.archaeopress.com)

## Historical Archaeologies Series

The Historical Archaeologies Series (HAS) is a new monograph series in the Archaeopress Access Archaeology imprint for studies that explore past societies, considering long-term perspectives, with a particular focus on the archaeological study of literate societies.

The collection is interested in the historical dimension of archaeological research, exploiting perspectives such as microhistory, multiscale analysis, comparative studies, multiple temporalities, deep landscapes, etc. The multiproxy analysis of historical societies is also a key concern, considering not only the extensive use of archaeological sciences, but also more 'traditional' sources in a critical and inclusive way. The archaeological study of written records and the documentary study of the archaeological record, overcoming the scholarly disjuncture between disciplines, are among the perspectives that will be enhanced, together with conceptually and theoretically informed approaches. There is also a keen interest in topics, geographies, and initiatives emerging in the periphery of mainstream archaeological research. The series intends also to open avenues to younger scholars and groundbreaking research, covering worldwide geographies.

The Historical Archaeologies Series will comprise:

1. Thematic studies that offer a comprehensive review of the most important current problems in archaeology in a long long-term perspective, in particular the archaeological study of medieval, modern, and contemporary periods.
2. Original research monographs between 60,000 and 200,000 words. Monographs should follow the standard format of an archaeological paper. Papers will be submitted to a double-blind peer review process.
3. Collective books centered on relevant topics related to historical archaeologies.
4. Innovative and experimental proposals aimed at overcoming the limits of current historical archaeologies.





# Contents

List of figures.....	i
List of tables .....	vi
Credits.....	vii
Contributors .....	viii
Abstract .....	x
Preface .....	xi
<i>Juan Antonio Quirós Castillo</i>	
<b>The Archaeology of the ‘off-sites’ in North-western Iberia .....</b>	<b>1</b>
<i>Juan Antonio Quirós Castillo</i>	
<b>The colonization of agricultural space in the territory of medieval Astorga: the agricultural space of Brimeda (Villaobispo de Otero, León, Spain) as attested by off-site ceramic material... 12</b>	
<i>Pilar Diarte-Blasco; Enrique Ariño Gil; Marta Pérez-Polo</i>	
<b>El registro <i>offsite</i> como fuente para la reconstrucción del paisaje antiguo. Dos ejemplos del entorno de la ciudad de Cabeza Ladrero (Sos del Rey Católico/Sofuentes, Zaragoza) .....</b>	<b>25</b>
<i>Ángel A. Jordán</i>	
<b>Intensive survey on the Valpierre plain (La Rioja, Spain): dynamics of an agrarian landscape from prehistoric times to the present.....</b>	<b>56</b>
<i>Enrique Ariño Gil; Javier González-Tablas Sastre; Rodrigo Portero Hernández; María de los Reyes de Soto García</i>	
<b>Roman rural landscapes in the north-eastern sector of the Duero basin. Field survey and aerial archaeology in the Pisuerga-Arlanzón basin .....</b>	<b>80</b>
<i>Jesús García Sánchez</i>	
<b>Pottery, settlement patterns and agrarian practices between Roman and medieval times in the Eresma and Voltoya valleys (Segovia, Spain).....</b>	<b>100</b>
<i>Carlos Tejerizo García</i>	
<b>The manure hypothesis, off-site records and the archaeology of agricultural practices in the Alava plain .....</b>	<b>127</b>
<i>Juan Antonio Quirós Castillo, Lorena Elorza González de Alaiza, Maite I. García-Collado</i>	

## List of figures

Figure 1.1.	Map of the cases study considered in this book.....	5
Figure 2.1.	Aerial photograph (1956) in which the regular plot around Brimeda can be seen (Spanish Army Geographic Centre, photo. 14931-R. 160 - July 27, 1956).....	13
Figure 2.2.	Dispersion of traditional earthenware and industrial stoneware in the area surveyed around Brimeda. Cartographic base of the National Plan for Aerial Orthophotography ( <a href="http://pnoa.ign.es/">http://pnoa.ign.es/</a> ).....	17
Figure 2.3.	Fragments of industrial stoneware recovered in the territory of Brimeda. ....	18
Figure 2.4.	Fragments of earthenware recovered in the territory of Brimeda. ....	18
Figure 2.5.	Fragments of common cooking ware recovered in the territory of Brimeda.....	19
Figure 2.6.	Fragments of common pottery decorated with burnished lines recovered in the Brimeda territory.....	19
Figure 2.7.	Dispersion of common cooking ware and common pottery decorated with burnished lines in the surveyed area around Brimeda. Cartographic base of the National Plan for Aerial Orthophotography ( <a href="http://pnoa.ign.es/">http://pnoa.ign.es/</a> ).....	21
Figure 3.1.	Localización de Cabeza Ladrero (Sofuentes/Sos del Rey Católico, Zgz.) .....	26
Figure 3.2.	Propuesta de delimitación del territorium de la ciudad de Cabeza Ladrero (Sofuentes/Sos del Rey Católico, Zgz.) y su relación con las ciudades romanas más cercanas .....	27
Figure 3.3.	Espacio prospectado hasta 2021.....	28
Figure 3.4.	Restos de una procesadora de grava creada para la construcción del Canal de las Bardenas sobre el sitio del Bronce de Tamborín I (Sos del Rey Católico, Zgz.).....	29
Figure 3.5.	Destrucción del paleosuelo original en Tamborín III (Sos del Rey Católico, Zgz.). Nótese cómo el afloramiento de arenisca se ha ido partiendo en pequeñas lascas irregulares que aparecen por toda la zona, sólo apreciándose en su grosor original en la cima de la colina. El resto del espacio está ocupado por el nivel de margas, poco fértil y fácilmente erosionable, que ha aflorado al exterior tras la destrucción de la arenisca.....	30
Figure 3.6.	Ejemplo de torrentera en medio de un campo de cultivo.....	31
Figure 3.7.	Hallazgo aislado de un fragmento cerámico vidriado vinculado a una pequeña cabaña ....	35
Figure 3.8.	Distribución de material en los sitios de Chavo (Sos del Rey Católico, Zgz.) (arriba) y Plana Baja (Sos del Rey Católico, Zgz.) (debajo).....	36
Figure 3.9.	Halo y distribución de artefactos en los sitios de Corral de Ibarra (Sos del Rey Católico, Zgz.) (arriba) y Corral del Santo (Sos del Rey Católico, Zgz.) (debajo) .....	37
Figure 3.10.	Distribución de los principales tipos cerámicos encontrados en Villavetre (Sos del Rey Católico, Zgz.): Dolia (arriba) y cerámica de mesa (abajo, círculo = CCO y rombo = TSH)....	39
Figure 3. 11.	Distribución ocupacional de los sitios identificados con cronología prehistórica en la cuenca del barranco del Santo (círculo: Neolítico; cuadrado: Calcolítico; estrella: sin datación).....	40
Figure 3.12.	Distribución ocupacional de los sitios identificados con cronología prehistórica en la meseta de Sentis (círculo: Neolítico; cuadrado: Calcolítico; estrella: sin datación).....	40
Figure 3.13.	Ocupación neolítica conocida en la zona prospectada.....	42
Figure 3.14.	Dispersión de registro offsite prehistórico.....	42
Figure 3.15.	Dispersión de registro offsite prehistórico en el entorno de Alto Vico I y Chacona I (Sos del Rey Católico, Zgz.) .....	44
Figure 3.16.	Ocupación romana altoimperial en la zona prospectada.....	45
Figure 3.17.	Distribución del registro offsite de cronología romana .....	46
Figure 3.18.	Hipótesis de distribución de fundi vinculados a villae rusticae .....	47
Figure 3.19.	Registro offsite de época romana y su relación con los fundi.....	48

Figure 3.20.	Halo (verde) y registro offsite (rojo) de villulae de época romana.....	49
Figure 4.1.	The Valpierre plain. Image from the National Plan for Aerial Orthophotography (PNOA).	57
Figure 4.2.	Valpierre Plain. Soil profile. Right bank of the River Oja at Villalobar de Rioja.....	57
Figure 4.3.	Traces of surface run-off in the western part of the centuriation (from the south). The road from Santo Domingo to Haro (1) and the 2006 road from Casalarreina to Ezcaray (2) are identified. In the background Castañares de Rioja. Aerial photograph of 1 June 2006.....	58
Figure 4.4.	Runoff lines with an S-N route in the western part of the Valpierre plain Image produced from satellite data (Google Earth, 23 May 2011) and projected on the 1.50,000 scale maps of the Spanish Army Geographic Centre (Series M-781), years 1964, sheets 169 (Casalarreina), 170 (Haro), 202 (Santo Domingo de la Calzada) and 203 (Nájera).....	58
Figure 4.5.	The centuriation on Libia on the Valpierre Plain. Archaeomorphological study projected on the 1.50,000 scale maps of the Spanish Army Geographic Centre (Series M 781), year 1964, sheets 169. Casalarreina, 170. Haro, 202. Santo Domingo de la Calzada and 203 (Nájera).....	60
Figure 4.6.	Map of the network of medieval roads reconstructed from documentary sources (in black), on the cartographic basis of the 1.50,000 maps of the Spanish Army Geographic Centre (Series M-781), year 1964, sheets 169 (Casalarreina), 170 (Haro), 202 (Santo Domingo de la Calzada) and 203 (Nájera) (in grey).....	60
Figure 4.7.	Valpierre Plain in the image from the American Flight of 1956-57. Frames 24202, 24200 (roll 239, 13-09-1956) and 45443, 45445 (roll 446, 5-06-1957). Source. Spanish Army Geographic Centre.....	63
Figure 4.8.	Surveying technique carried out on the Valpierre plain. Individual recording of fragments with GPS. Photo of 7 September 2016. ....	63
Figure 4.10.	Valpierre Plain. Distribution of flint findings. Middle Palaeolithic (squares), Upper Palaeolithic (circles), indeterminate chronology (triangles). Image from the National Plan for Aerial Orthophotography (PNOA).....	64
Figure 4.9.	Lithic tools recovered at Valpierre 1. Levallois flake, 2. Discoid nucleus, 3. Mousterian tip, 4. Thick nose endscraper, 5. Circular endscraper, 6. Straight tip, 7. Dihedral burin, 8. Simple sidescraper 9. Back blade, 10-11. Pyramidal nucleus, 12. Prismatic nucleus, 13. Globular nucleus.....	64
Figure 4.11.	Valpierre Plain. Distribution of the hand-made ceramics (circles) in comparison with the set of ceramic findings and location of the axe fragment in polished stone (square). Sites. 1) Hill 663; 2) Los Manatíos 1; 3) Los Manantíos 2; 4) Gambomborra. Image from the National Plan of Aerial Orthophotography (PNOA).....	67
Figure 4.12.	Hand-made ceramic fragments from the Chalcolithic period recovered at Valpierre. ....	67
Figure 4.13.	Axe fragment in sillimanite recovered from the Valpierre plain. ....	68
Figure 4.14.	Pottery fragments from the late Roman and early medieval periods. 1-7. Late Hispanic terra sigillata, plain type, 8-9. Late Hispanic terra sigillata, moulded type, 10. ARSW, 11. Pompeian red ware imitation (Hisp. 37t form of late Hispanic terra sigillata), 12. Pompeian red ware imitation, 13. Grey or black pottery with polished surfaces. All the fragments come from the Gambomborra site. ....	68
Figure 4.15.	Fragments of common cooking ware recovered at Valpierre. Numbers 1-3 and 5. fabric 1, numbers 4, 7 and 8. fabric 3, number 6. fabric 4, number 9. fabric 7, number 10. fabric 8, number 11. fabric 10, number 12. fabric 9 .....	69
Figure 4.16.	Common grey pottery fragments recovered at Valpierre.....	71
Figure 4.17.	Valpierre Plain. Distribution of late Hispanic terra sigillata, plain type (circles), late Hispanic terra sigillata, moulded type (squares) and possible undetermined late Hispanic terra sigillata (triangles). Sites. 1) Hill 663; 2) Los Manatíos 1; 3) Los Manantíos	

	2; 4) Gambomborra. Image from the National Plan of Aerial Orthophotography (PNOA). .	71
Figure 4.18.	Valpierre Plain. Distribution of the common cooking ware. Sites. 1) Hill 663; 2) Los Manatíos 1; 3) Los Manantíos 2; 4) Gambomborra. Image from the National Plan of Aerial Orthophotography (PNOA).....	72
Figure 4.19.	Valpierre Plain. Distribution of the common grey pottery. Sites. 1) Hill 663; 2) Los Manatíos 1; 3) Los Manantíos 2; 4) Gambomborra. Image from the National Plan of Aerial Orthophotography (PNOA).....	72
Figure 4.20.	Traditional earthenware fragments recovered at Valpierre. ....	75
Figure 4.21.	Fragments of industrial stoneware (1, 3-5 and 8-11) and modern porcelain (2, 6, 7 and 12) recovered at Valpierre.....	75
Figure 4.22.	Valpierre plain. Distribution of traditional earthenware (white circles), industrial stoneware (black triangles) and porcelain (black circles). Sites. 1) Hill 663; 2) Los Manatíos 1; 3) Los Manantíos 2; 4) Gambomborra. Image from the National Plan of Aerial Orthophotography (PNOA).....	76
Figure 5.1.	Study area in the Duero valley.....	81
Figure 5.2.	Sites mentioned in the text. La Serna (Olmillos de Sasamón); 2. Tisosa (Sasamón); 3. Trisla (Sasamón); 4. Carrecastrillo (Olmillos de Sasamón); 5. Mansegar (Manciles); 6. Quintanal (Tardajos); 7. Cuesta Grande (Buniel); 8. Molino de Arriba (Buniel); 9. Las Quintanas (Cavia).....	81
Figure 5.3.	Left, density of materials (general type) at Tisosa and Trisla. Right, density of materials (modern type) at Tisosa and Trisla. Interpretation of archaeological structures from G.E. and UAV photo. ....	86
Figure 5.4.	Above, density of materials (general type) at La Serna, and interpretation of archaeological structures on the G.E. photo. Below, archaeological items located in prospection. ....	88
Figure 5.5.	Left. Interpretation of the site of Mansegar on Google Earth photo dated 17 June 2019. Right Above, interpretation on the delimiting polygon of the Archaeological Inventory of Castilla y León. Right Below, traces of the site are visible in PNOA-NIR of 2011. ....	88
Figure 5.6.	Roman urban structure of Deobrigula in Quintanal, Tardajos.....	90
Figure 5.7.	Left, flood plain of the Arlanzón river with the location of A. Cuesta Grande, and B. Molino de Arriba. Right above, detail of the site of Cuesta Grande. Right below, reconstruction of the site of Molino de Arriba from a G.E. photo.....	91
Figure 5.8.	Left, archaeological structures at Las Quintanas on the Los Ausines river, Cavia. Right, detail of the archaeological complex at Las Quintanas, Cavia. ....	92
Figure 6.1.	The territory under scrutiny. Dots represents the archaeological sites, with the names of the main sites cited in the text. The polygon frames the space where the fieldwork took place.....	102
Figure 6.2.	Typical landscape of the territory between the river Eresma and Voltoya. In the background, the site of San Isidro. ....	104
Figure 6.3.	Map of the territory.....	105
Figure 6.4.	Intensive fieldwork at the site of La Trinidad.....	107
Figure 6.5.	Distribution of Roman sites in the territory.....	110
Figure 6.6.	The site of Matabuey/La Trinidad and the concentration materials for each period .....	111
Figure 6.7.	Post-Roman sites in the territory between the Eresma and the Voltoya rivers. ....	113
Figure 6.8.	Pottery scatter in the context of La Mata del Palomar. A) Pottery documented; B) Roman pottery scatter; C) Post-Roman pottery scatter; D) Medieval pottery scatter .....	114
Figure 6.9.	Pottery scatter in the context of La Trinidad. A) Pottery documented; B) Roman pottery scatter; C) Post-Roman pottery scatter; D) Medieval pottery scatter.....	115
Figure 6.10.	Medieval sites documented in the territory .....	116



Figure 6.11. Shrine of Santa Inés. This building was built on a Late Roman villa.....	117
Figure 6.12. Pottery scatter at the site of San Isidro/Domingo García. A) Total pottery scatter; B) Post-Roman pottery scatter; C) Medieval pottery scatter.....	118
Figure 7.1. Location of the Alava plain and the limits of the municipalities.....	129
Figure 7.2. Photographs of ploughed fields in the Alava plain. ....	130
Figure 7.3. Photographs of ploughed fields in the Alava plain. ....	133
Figure 7.4. Location map of the Topographic Units. ....	134
Figure 7.5. The deserted site of Quilchano (Etxabarri-Urtupiña, Álava).....	135
Figure 7.6. Dimensional standards used in the taphonomic study. ....	137
Figure 7.7. Classification of the degree of rounding of ceramics used in the taphonomic study.....	137
Figure 7.8. Classification of the degrees of alteration of the surfaces used in the taphonomic study..	138
Figure 7.9. Quantification of the number of fragments according to the defined chronological ranges. ....	139
Figure 7.10. Location map of the main localities mentioned in the discussion. ....	140
Figure 7.11. General view of the site of Zornoztegi (Agurain, Álava). ....	141
Figure 7.12. Chronologies of terraces and terraces for agricultural use investigated in the Basque Country. ....	142
Figure 7.13. Erosion of traditional agricultural surfaces caused by heavy machinery. ....	146

## List of tables

Table 1.1.	Number of prospects carried out in the Basque Country between 1982-2015 .....	4
Table 1.2.	Representation of the different chronological periods in the non-sites presented in this volume (PR= Prehistory, RM= Roman; LRP= Late Roman Period; LA= Late Antiquity; EME= Early Medieval Period; HME= High Medieval Period; LME= Late Medieval Period; ME= Modern Age; CA= Contemporary Period) .....	8
Table 1.	Total numbers and percentages and of the ceramic productions recovered in the territory of Brimeda.....	19
Tabla 3.1.	Posibles fundi identificados en el territorio de Cabeza Ladrero .....	48
Table 4.1.	Typological classification and raw materials used for the Palaeolithic tools (Middle and Upper) recovered in the Valpierre survey. ....	65
Table 4.2.	Description of the common cooking pottery fabrics recovered in the Valpierre survey. ...	70
Table 4.3.	Total numbers and percentages (in grey) of the ceramic productions recovered in Gambomborra, Hill 663, Los Manatíos 1 and Los Manantíos 2. H-Mp. hand made TSHT plain pottery, t. late terra sigillata hispanica, plain type, TSHT mould t. late terra sigillata hispanica, moulded type, ARSW. African Red Slip Ware, TW. thin-walled pottery, PRWI. Pompeian red ware imitation, Lamps. lamps, CW. common ware, CP grey. common grey pottery, G/BW. grey or black pottery with polished or burnished surfaces, CCW. common cooking ware, EW. traditional earthenware, Ind. EW. industrial stoneware, Porce. porcelain.....	73
Table 6.1.	Exceptional sites detected during the survey.....	108
Table 6.2.	Diachronic patterns detected in the survey.....	119
Table 7.1.	Comparative table of some intensive surveys carried out in Northwestern Iberia.....	134
Table 7.2.	Number of plots allocated to each of the three defined categories .....	136

## Credits

This book was supported by the project “Archaeology of the local societies in Southern Europe: identities, collectives and territorialities (5th-11th centuries)” (PID2020-112506GB-C41) funded by the Spanish Ministry of Science and Innovation, the Research Group in Heritage and Cultural Landscapes (Government of the Basque Country, IT1442-22) and the Group of Rural Studies (Unidad Asociada UPV/EHU-CSIC).



# GIPYPAC

Research Group in Heritage  
and Cultural Landscapes

eman ta zabal zazu



Universidad  
del País Vasco

Euskal Herriko  
Unibertsitatea

## Contributors

Juan Antonio Quirós Castillo is Professor of Archaeology at the University of the Basque Country. His principal interests are focused on Landscapes, Social Archaeology and Historical Archaeologies. He has directed several projects devoted to the study of early medieval local societies, social complexity and inequality. As a result, he has published several volumes on these topics, including 'Social Inequality in Early Medieval Europe Local Societies and Beyond' (Turnhout. Brepols, 2020).

Ángel A. Jordán Lorenzo is Director of Cabeza Ladrero Archaeological Project. His principal interests are focused on Landscapes, Roman Society and Roman Epigraphy. He has participated in several international projects in the field of roman epigraphy and roman society. As a result, he has published several studies on these topics, including "Concepto y uso del monumento epigráfico en la Hispania romana durante el Principado" (Salamanca. Signifer, 2014).

Dr Maite I. García-Collado completed her PhD titled Social archaeology of food in early medieval Iberian rural communities (5th–9th c. AD) at the University of the Basque Country in 2020. Currently she is a postdoctoral researcher at the University of the Basque Country and the University of York, where she is working on the characterisation of the diet of early medieval Iberian urban populations. She is interested in human osteoarchaeology, palaeodiet and mobility, and their potential to analyse agrarian practices and social organisation in early medieval European societies.

Marta Pérez-Polo has a PhD in Archeology from University of Navarra (2022). Her principal interests are focused on landscapes transformations in Late Antique and Early Medieval Ages. She has participated in various national and international archaeological projects and currently co-directs the project El Tossal de la Vila i els corredors de la rambla Carbonera i pla de l'Arc als períodes del Bronze Final-Ferro Antic i Altomedieval. The last publication of this project focuses on emiral mosque of the Tossal de la Vila (Lvcentvm, XLI, 2022).

Pilar Diarte-Blasco is a Ramón y Cajal researcher (MICINN) in the Spanish National Research Council (CSIC). She completed her European PhD in 2011 at the Universidad de Zaragoza (Spain) and then held several prestigious postdoctoral fellowships in Italy, Spain and UK, such as the Marie Skłodowska-Curie Fellowship (2015-2017) at the University of Leicester. She has directed several projects devoted to the study of post-classical transformations of landscapes and townscapes. As a result, she has published numerous papers and the book 'Late Antique and Early Medieval Hispania Landscapes without Strategy?' (Oxbow, 2018).

Enrique Ariño Gil is Professor of Archeology at the University of Salamanca. His main lines of research focus on landscape archaeology, archaeological prospecting, Roman and medieval archaeology, and Central Asian archaeology. He has published scientific works on Roman landscapes in the Iberian Peninsula, archaeological ceramics and early medieval settlements in Hispania. He has been the Director of several R+D+i projects since 1991. Since 2006 he is a member of the international excavation team in Termez (Uzbekistan).

Francisco J. González-Tablas Sastre is a retired Senior Lecturer at the University of Salamanca. He is a specialist in the Protohistory of the Iberian Peninsula. His research focus to the Late Bronze and the Iron Age cultures in the regions of central Spain. He has directed archaeological excavations at the Los Castillejos (Sanchorreja, Ávila) and La Mesa de Miranda (Chamartín, Ávila) sites. He has also carried out

studies on schematic rock art. He is author of several scientific articles and book chapters on Prehistory and Protohistory.

Rodrigo Portero is a researcher at the International Institute for Prehistoric Research of Cantabria (IIIPC, University of Cantabria). He has a degree in History and a PhD in Prehistory (University of Salamanca). His principal line of research is human subsistence strategies during the Upper Pleistocene in the Spanish Cantabrian region through macromammal zooarchaeology and taphonomy. He has studied remains from prehistoric, protohistoric, ancient and medieval sites. He has collaborated in several national projects and has published the results in different high impact journals.

María de los Reyes de Soto García is a technical staff member of the Spanish National Research Council (CSIC). She has a degree in History and a PhD in Archaeology (University of Salamanca). Her lines of research are evolution of settlement, archaeometry and archaeological methodology. She has directed a project on the Arsenio Gutiérrez Palacios research at the Diego Álvaro site (Ávila). She has collaborated on different scientific research projects and published articles and book chapters on Roman and medieval archaeology.

Jesús García Sánchez holds a degree in History and a PhD in Archaeology from the University of Cantabria. His main line of research focuses on applying diverse remote sensing techniques, chiefly aerial photography, geophysics, and archaeological field survey, to study Late Roman and Roman rural landscapes in the Duero valley and Lusitania. Furthermore, his research has been applied in other Mediterranean landscapes such as Greece, Italy, and Algeria.

Carlos Tejerizo is a Marie Curie postdoctoral researcher currently working at the University of Genoa. His main line of research are the archaeological analysis of peasant societies in the long duration and their mechanisms of adaptation and resistance regarding process of structural change. His most recent publications are the co-edited book on “The Iberian Peninsula between 300 and 850” (Amsterdam University Press, 2018) and “El Estado y la Alta Edad Media” (Universidad del País Vasco, 2022).

## Abstract

This volume is devoted to the archaeological study of the societies and agrarian landscapes of Northwestern Iberia in terms of *longue durée*. The book brings together, for the first time, the results of some of the main projects carried out in recent decades from off-site records providing a fresh perspective for the understanding of historical landscapes. The papers evaluate the ‘manure hypothesis’ and other variables that have influenced the formation of pottery carpets in several territories of the Ebro and Douro basins. The interpretation of this record is done through critical integration with other historical, ethnographic and archaeological evidence. In thematic terms, the processes of early medieval colonization, the transformation of rural societies between the Roman and medieval periods, the agency of subaltern groups, the transformations of agrarian practices from a social perspective, and the morphology of agrarian landscapes from prehistory to contemporary age are analysed. In addition, off-site records singularities in non-Mediterranean spaces are considered. In summary, this volume introduces new topics, concepts and case studies useful for developing a multiproxy agrarian archaeology.

# Preface

Juan Antonio Quirós Castillo

This volume is dedicated to the study of the societies and landscapes of Northwestern Iberia from the perspective of agrarian archaeology. This is one of the most promising lines of research developed in the Iberian Peninsula filling the gap between the archaeological record and the traditional rural societies. To address this issue, different concepts, methodologies, and records have been used, which are not always easy to interpret due to the characteristics of the material footprint generated by agricultural practices. The critical integration of diverse information is proving to be the best way to overcome ambiguities and limitations.

Among other topics covered by agrarian archaeology, the interpretation of non-sites or off-sites records is one of the most controversial ones. This evidence has been defined in the context of intensive archaeological surveys, and their interpretation is complex because it is affected by a number of dynamics: the formative processes of archaeological deposits, agricultural practices, the degree of transformation of rural landscapes, etc.

This book takes into consideration the off-site records of Northwestern Iberia in the light of some archaeological projects carried out in recent years which, so far, have not been examined together. The works presented at a meeting held in Vitoria-Gasteiz in June 2019 are on the basis of this book, even though they are not the meeting proceedings. Some papers have not been included and other studies that were not presented in the workshop have been added instead. The discussions that took place at the Vitoria meeting are of particular interest and are accessible through the recordings made at the time<sup>1</sup>.

This volume has been carried out within the framework of the research projects 'Peasant agency and socio-political complexity in the northwest of the Iberian Peninsula in medieval times' (AEI/FEDER UE HUM2016-76094-C4-2-R) and 'Archaeology of local societies in Southern Europe: Identities, collectives and identities' (PID2020-112506GB-C41) funded by the National Research & Development Plan, the activity of the Research Group on Heritage and Cultural Landscapes of the University of the Basque Country and its Associated Group of Rural Studies Unit, UPV/EHU-CSIC.

Vitoria-Gasteiz, 1.9.2022

---

<sup>1</sup> Available in <https://ehutb.ehu.eus/series/5d0a483cf82b2b63788b46a4>.





# The Archaeology of the ‘off-sites’ in North-western Iberia

Juan Antonio Quirós Castillo<sup>1</sup>

## Abstract

This volume is dedicated to the study of the haloes of potteries and other archaeological remains recovered in surveys carried out in Northwestern Iberia, testing the ‘manure hypothesis’ and other factors aimed at the interpretation of these non-site records. In this chapter it is argued that the study of carpets of pottery located outside the sites is not only relevant to study the practices of fertilization and improvement of fields by pre-industrial societies, but also to investigate the agency of subaltern groups. Mediterranean archaeology has devoted great efforts to documenting and critically interpreting this record developing the ‘manure hypothesis’ to make sense of the dispersive domestic waste found in agricultural lands. However, this hypothesis has been not tested in Northwestern Iberia. What is more, this record has often been considered in a segmented chronological way, following the rigid academic compartmentalisations that end up making this document intelligible. The chapter introduces the general reference framework in which these works have been carried out and the themes addressed by the six chapters that make up the volume.

## Keywords

Intensive fieldwork, Manure hypothesis, Mediterranean Archaeology, Timeless Archaeology, Agency, Subalterns, Agrarian Landscapes, agro-silvo-pastoral economies

*Les déchets sont de faits sociaux totaux*  
Marc Conesa, Nicolas Poirier 2019, 292

## Introduction

In an important article published almost ten years ago devoted to the Archaeology of agricultural spaces, Victorino Mayoral Herrera and Luis Sevillano Perea concluded that it would be very necessary to promote periodic meetings to properly understand the carpets of potteries located ‘off-sites’ and, in general, on the themes covered by Agrarian Archaeology (Mayoral Herrera, Sevillano Perea 2013). In these years, a network of specialists has been formed around the *International Mediterranean Survey Workshops* (Attema *et al.* 2020), and other important meetings have been held, such as the one in Mérida dedicated to the Social Archaeology of Agrarian Spaces (Mayoral Herrera *et al.* 2021). In fact, studies in the field of agricultural archaeology or agriculture have known an important impulse in recent years in Iberia, especially after the growing incorporation of geo and bio-archaeological records and the replacement of the site paradigm for the landscape analysis (Fernández Mier 2018B; Fernández Mier 2018A; Peña-Chocarro *et al.* 2019; García Collado 2020; Narbarte Hernandez 2020; Grau Mira *et al.* 2021; Grau Mira, Sarabia-Bautista 2022).

The archaeological study of agriculture is not an easy task. The material footprint left by most forestry and agro-pastoral practices is ambiguous and often poor or even totally invisible. And yet, each generation of archaeologists has implemented new procedures, questions, concepts, and theoretical frameworks to explore the primary sector in pre-industrial societies. It is true that some components

---

<sup>1</sup> Research Group on Heritage and Cultural Landscapes, University of the Basque Country / Euskal Herriko Unibertsitatea

of the agricultural production cycle are more visible than others: storage facilities, processing sites, presses, cisterns, archaeobotanical or archaeozoological waste, pollard trees, milling, coal bunkers, stables, etc. In addition, the increasing implementation of Archaeological Sciences has greatly expanded the amount of information available. In a way, agrarian archaeology remains a subdiscipline of landscape archaeology under permanent construction.

But as far as agricultural spaces are concerned, they are accessible when terraces, irrigation channels, walls and delimitations, roads, intentional contributions of fertile deposits, etc. have been made. But it is often not that easy to establish the cultural biography of the fields and determine their chronology.

The centrality that agro-silvo-pastoral economies have had in pre-industrial societies explains why this is one of the most important fields to history landscapes and people in a more fruitful way. But this is still not one of the top priorities in research agendas.

In an extremely synthetic way, there are three main burdens that penalize the full development of Agricultural Archaeology in Iberia. Firstly, there is a territorial bias. Although there are some territories that have been and continue to be intensely investigated, the geography of the research groups significantly conditions the accomplishment of these studies.

Secondly, the works carried out from a diachronic perspective, breaking the classic compartmentalization of academic periodization, are still not very abundant. And although this is a trend that has started to be corrected in recent years, this segmentation of the archaeological record is anachronistic, even more now that we are progressively moving towards a long-term archaeology based on topics and problems.

Thirdly, while some themes and records have been particularly enhanced and undermined by numerous research groups, others have been neglected. And among all of them, the study of the manure activities carried out by producers is one that has received the least attention. And this has important consequences, because this theme would allow connecting the domestic universe with the productive one, as well as economic and social trends, showing the agency of subaltern groups.

The main objective of this collective volume is to explore the landscapes and the agricultural practices of Northwestern Iberia in long-terms from a very specific perspective: the 'off-site' records. To this end, a number of contributions have been gathered to illustrate the themes, methodologies and conceptual frameworks that have been promoted so far, also proposing new lines of work.

In this introduction the topic is presented, the reasons why these records have not been integrated in the work agenda of agricultural archaeology are briefly exposed, the contents of the chapters that make up the volume are introduced and some of the main derivatives of this collection of works are identified.

### **Non-sites or 'off-sites' records**

Both Anglo-Saxon archaeological tradition and Mediterranean archaeology have built a solid tradition of intensive and extensive surveys at least since the 1950s. The mechanization of agricultural production that has developed since then has had a double consequence: on the one hand, it has brought to light an enormous number of archaeological evidence which had been buried for centuries; but on the other hand, repeated cultivation with deep ploughs has been eroding, if not exhausting, this evidence.

The detection of domestic and non-monumental sites has undoubtedly been one of the main results of intensive fieldwork in these decades. In addition, the 'revolution of intensive regional surveying' (Bintliff 2018), has shown the existence of some kind of evidence considered as 'non-sites' or 'off-sites'. These terms refer to the discovery of pottery carpets or haloes in the surroundings of the 'sites' or at a

certain distance from them forming low density concentrations. The usefulness of these notions lies in the fact that they allow to define the superficial archaeological record as a heterogeneous, continuous and dispersed reality, and normalize a methodology (Mayoral Herrera, Sevillano Perea 2013). In addition, this material finding has urged us to question the nucleated approach that has traditionally characterized the notion of archaeological 'site' based on the discovery of the extraordinary. One of the advanced interpretative proposals to explain this type of distribution of materials on the surface is what has been called 'manure hypothesis'. Formulated in the 1980s and the subject of discussion since then, it suggests that these materials would be the result of using domestic waste to fertilize the fields near inhabited places in order to increase, maintain and promote intensive and continuous agricultural practices (Forbes 2013).

Why is it relevant to quantify, collect and process large volumes of ceramic materials apparently decontextualized and disturbed by recent agricultural tasks? Why deal with 'removed materials' instead of focusing on 'closed contexts' capable of providing 'safe' associations on which to build solid typologies and interpretations?

There are multiple reasons. In conceptual terms, the 'off-site' record is a derivative of the replacement of the archaeological paradigm of the 'site' by that of the continuous and holistic landscape. In fact, in recent years this concept has further expanded to include not only uncultivated spaces, and 'peripheral' areas such as mountains, but also the so-called empty spaces (Campana 2018).

In operational terms, the consideration of the materials found in non-sites has important implications when it comes to understanding the formative processes of archaeological evidence, including erosion, transformation and even disappearance (Schiffer 1987). But it also involves exploring the cultural dimension of the concept of garbage and waste, the forms of rural space management, the social dimension of material culture and, ultimately, transcending the typological or economic approach in favour of a cultural biography of objects.

In historical terms, these materials provide important information about agro-pastoral landscapes and the social, political and economic practices articulated around these activities. In this way, it is possible to make the multiple and relational agencies, both of subaltern groups and elites visible (Quirós Castillo, Tejerizo García 2020). Authors such as Richard Jones have argued, in the volume entitled 'Manure Matters', that it is possible to define different fertilizing patterns in social terms. Elites had consistent herds that made field manure invisible in 'off-site' records. As a result, the recurrent use of household waste would characterize social groups endowed with a small number of cattle (JONES 2012).

In terms of economy history, several authors have proposed to identify agricultural cycles of intensification, extensification or contraction based on the analysis of the density, chronology and characteristics of the ceramic materials found in these haloes. Among many other studies, it could be mentioned N. Poirier's monograph dedicated to Berry's territory, in which profound transformations of rural landscapes could be documented: weak occupation in the Antiquity; decline in the Late Antiquity; an agrarian rise of the Early Middle Ages; Stabilisation and change of agrarian practices in the 11th-15th centuries; the recovery during the Modern Age (Poirier 2010).

In methodological terms, this record acquires a new meaning if analysed from a complementary and inclusive multiproxy perspective, considering other evidence, oral, written, toponymic and ethnographic information when understanding aspects that are not obvious in rural societies.

In short, it is the theoretical framework, the problem agenda and the use of refined methodologies of documentation and analysis that transforms the 'decontextualized' materials into new types of

contexts and landscapes, often opaque to the pattern of Western rationality. If non-sites are therefore as important and informative as sites, why hasn't there been an 'off-site' archaeology in North-western Iberia?

### Some background. Surveying 'off-sites'

The archaeology of non-sites, defined in the Mediterranean from large projects carried out in the Aegean, Levant or in Italy, has penetrated some sectors and Iberian research groups (from Catalonia and Aragon to Lusitania, from Alicante to Andalusia) giving rise to projects of great interest (Attema *et al.* 2020). However, it has had less development in Northwestern Iberia.

In this territory there is still certain skepticism about the heuristic potential of surface prospecting, so they are granted a lower methodological status than that of excavations (Mayoral Herrera, Sevillano Perea 2013) or an instrumental and subaltern use is made with respect to intensive interventions, mainly excavations. But paradoxically, this does not mean that fieldwalking is not part of the tooling and daily experience of archaeological practice in the Northwest of the peninsula, although strictly speaking there are only a handful of groups or professionals who define themselves and develop their main activity from the intensive and systematic prospection of continuous surfaces and/or analyse 'off-sites' haloes.

For example, in the Basque Country, no survey project of this nature has been carried out (with a few exceptions) in crop fields. In the articles published between 1982 and 2015 in *Arkeoikuska* journal (Table 1.1), 13.5% of all the interventions carried out in the three Basque provinces resorted to, with different intensity, surveys to investigate the archaeological record (563 out of 4181). However, and according to the titles of the different reports, only 2% of the interventions (81) used this approach as their main or exclusive axis. However, it is considered more pertinent to resort to prospecting when it comes to investigating 'unconventional' records, such as shafts furnaces, agricultural fields, common land, viability, forest resources and 'other heritage' that are being studied in recent years. In addition, it is striking that their incidence is precisely more notable where the potential visibility to carry out intensive and continuous prospecting is lower, as is the case of Gipuzkoa.

	Álava	Bizkaia	Gipuzkoa	TOTAL
Article Title	15	13	54	81
Article Text	100	121	341	563
TOTAL	1306	1141	1699	4181

Table 1.1. Number of prospects carried out in the Basque Country between 1982-2015

Schematically, there are three positions or attitudes about the heuristic possibilities of surface prospecting in general, and the potential of non-sites study in particular in Northwestern Iberia. In a first group I think that we could include skeptics who, even with due caution, question the usefulness of these methodologies. A second group would be those who make instrumental and subaltern use of prospecting techniques in the framework of excavation projects and intensive studies. I think this would be the majority. Activists or even enthusiasts would make up the third group, and I think they are a minority, although their numbers are in moderate growth. But in order to contextualize this taxonomy better, survey is ambiguous in itself because it applies to a wide variety of ways of exploring the land. In a discipline as undisciplined as Archaeology, solid proposals have been made in the form of handbooks, guides of good practices, protocols, regulations, etc. on how to carry out an excavation, but there are very few texts focused on the normalization of prospecting, agricultural archaeology and, in general, landscape archaeology (Criado Boado 1993; Criado Boado 1999; García Sanjuán 2005; Orejas Saco del

Valle 2006; Orejas Saco Del Valle, Ruiz Del Árbol Moro 2013). In addition, it does not seem coincidental to me that it was mainly prehistorians and classic archaeologists who promoted these initiatives.

A derivative of all this is that fieldwalking considering 'off- site' records have been and continue to be very rare. Consequently, the 'manure hypothesis', the study of the formative processes of these records, the visibility of buried deposits or the analysis of the forms of site alteration have hardly been treated in Northwestern Iberia. But in recent years there have been important advances in understanding the forms of waste management in inhabited places, which would allow the interpretation of these records to be approached from new theoretical and methodological perspectives.

What is more, some working groups influenced by the Anglo-Saxon tradition and Mediterranean archaeology have considered it both useful and a priority to incorporate the study of non-sites in archaeological prospecting projects. And although not all of them are represented in this volume, there are some of the main ones.

### The contents of this volume

This volume brings together some of the groups and experiences that have devoted more efforts to prospecting on an artifact scale over the years in order to reflect on the type of information provided by this procedure in Northwestern Iberia. The six works that make up this volume address, except in one specific case, territories of different extension and characteristics that have been delimited according to clearly defined historical-archaeological problems (Figure 1.1).

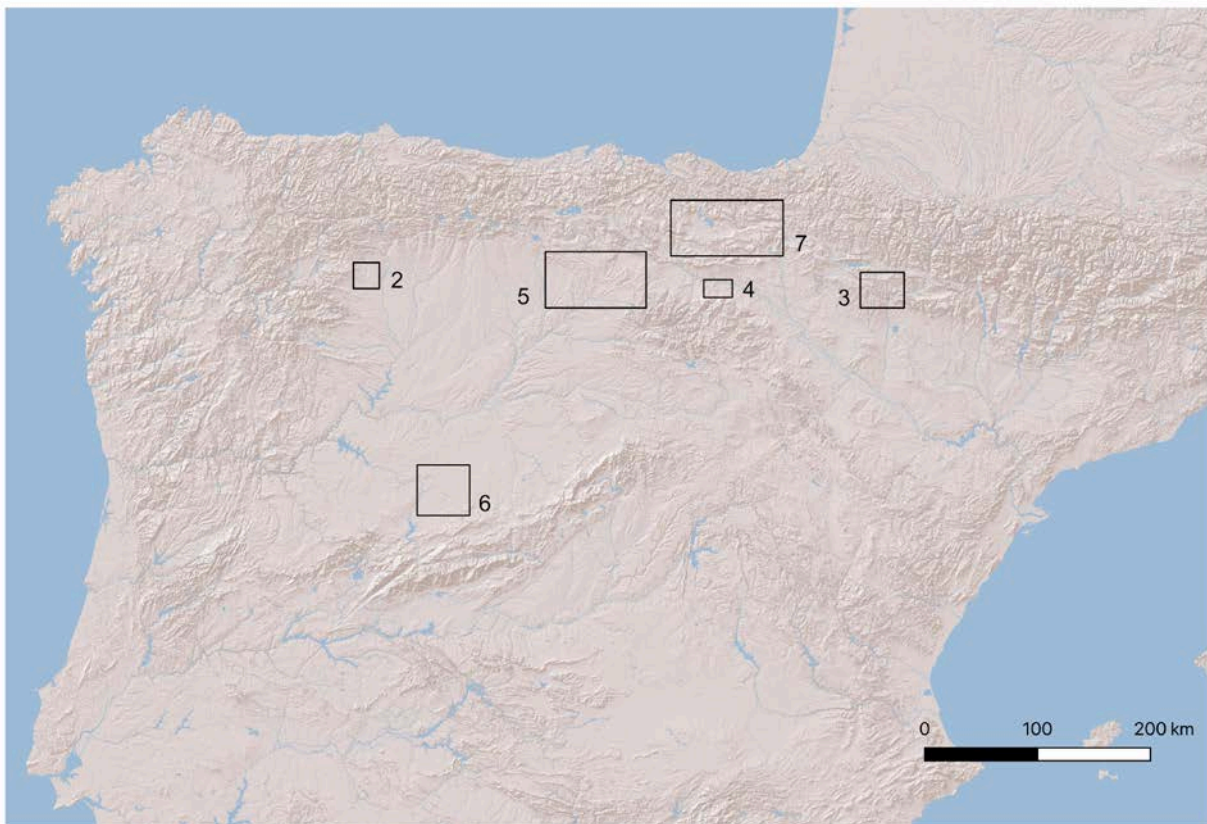


Figure 1.1. Map of the cases study considered in this book



The work by P. Diarte, E. Ariño Gil and M. Pérez is the only one that analyses a single case study of particular interest: the foundation of the Brimeda (León) village in the Early Middle Ages. Combining the information provided by written sources and 'off-site' record a cultural biography of the village is proposed. The documentation of the 9th century refers to an organized and directed colonization process that involved the design of an agrarian space associated with the village. It is true that many of the early medieval documents sometimes resort to what historians have called 'legal fictions', created in order to legitimize the aspirations of the institutions that then preserve them (LARREA CONDE 2007; DAVIES 2020). Therefore, one of the objectives of this project was to determine if the village really was the result of an organized colonization, or if it affected an already inhabited place instead. The ceramic materials recovered in the agrarian spaces allowed to conclude that it was indeed a new early medieval foundation, and that domestic waste was used from this period as a strategy to intensively cultivate the land.

Of the remaining works three have focused mainly on the analysis of Roman landscapes, another one on the analysis of the transition from Antiquity to the Middle Ages and the last one covers a wide time span.

Within the framework of the study project of the Roman city of Cabeza Ladrero, (Aragón) some intensive prospecting has been carried out in the area of urban influence to understand the occupation and use of the territory. On this occasion, 'off-site' ceramic haloes have been explored further to analyse both the intensity of the occupations and the uses of the land. Two occupational periods have been mainly differentiated. Flint lithic artifacts has allowed to identify a Neolithic occupation that has been interpreted in terms of pastoral use related to a subsistence agriculture. However, most of the materials refer to the Roman period. One of the main results of this study has been to identify the existence of a remarkable diversity of rural settlements, mainly small and medium-sized farms, questioning the hegemonic paradigm of the *villae*. In addition, the study has shown that this diversity of occupations also generates a differentiated 'off-site' records, revealing the existence of different dedications and productive logics. Although the city was also in use during the Middle Ages the medieval period is hardly represented in the 'off-sites'.

The study dedicated to the Valpierre plain explores, in terms of long duration, the occupations and agrarian landscapes of a territory of 177 km<sup>2</sup> through the 'carpets' of 'off-site' materials. Perhaps the most interesting contribution of this paper is what is missing rather than what is attested. 'Off-site' materials have restored, testimonies related to three historical periods: the Paleolithic, the Chalcolithic and the contemporaneity (19th and 20th centuries). Although traces of Roman centuriation are preserved and there are written testimonies of intense occupation during the Middle Ages, these periods are not represented in the 'off-site' record. These silences lead us to consider the relevance of other forms of manure procedure, and in particular livestock integration. Besides, the notable presence of ceramic waste associated with the mechanization of agricultural production is particularly interesting.

Jesús García has been one of the pioneers in the northwest of the peninsula when it comes to investigating 'off-sites' record within the framework of his doctoral thesis carried out in the *Ager Segisamonensis* (García-Sánchez, Cisneros 2013). In this volume he makes a critical review of the results obtained in previous studies considering the availability of new aerial images obtained from sources such as UAVs and satellites. As a result, he proposes to move from economic approaches to more integrative agendas that consider the social dimension of landscape in polyhedral terms. In addition, the analysis of several sites located in proximity to the cities of *Segisamo* and *Deobrigula*, leads him to argue that it is possible to add new layers of knowledge with which to revisit and investigate the landscapes in temporal terms. He also presents very detailed analyses of some specific sites.

The chapter dedicated to the transformation of agrarian landscapes and the network of settlements between the Roman and medieval periods in the Eresma and Voltoya valleys in Segovia is particularly illuminating because many 'off-sites' materials have been studied. Carlos Tejerizo's paper connects the transformations of settlement patterns with agrarian practices, proposing a three period division. During the Late Roman period extensive cultivation practices are used and it is common to find pottery carpets at relevant distances from inhabited places. In the Post Roman period, *villae* and subsidiary settlement are replaced by hillforts and a network of villages and farmsteads which promotes intensive agriculture. Household waste is now placed only near settlements. On the other hand, from the 8th century there is a restructuring of settlement patterns, now articulated in nucleated villages and towns. A consequence of this process has been the implementation of an open-field system, being the result of the collective action of local communities. Pottery sherd distribution shows the use of manure practices even at considerable distances from populated places.

Finally, the work on the Alava plain considers the results obtained in an intensive and systematic fieldwork carried out in an area of high agricultural productivity twenty years ago. And although at that time it was not possible to record single artifacts, this fieldwalk provides very significant data because throughout these decades the erosion of the 'off-sites' record has been continuous. Considering a long-term perspective, eight chronological periods are defined to investigate agricultural practices of the Alava plain and the peripheral mountain ridges. The integration of a large number of proxies allows to critically evaluate the type of inferences that can be made from materials located 'off-site', as well as to delineate the transformations of agrarian landscapes in the last two thousand years. While some chronological periods are barely represented in this record (Roman period, early medieval, late medieval), the early and high medieval centuries stand out, as well as the second part of the modern period.

As pointed out recently, the diversity of methodologies and conceptual frameworks means that it is very difficult to compare the results obtained by prospections of this nature (Attema *et al.* 2020). And yet, some general trends can indeed be observed.

In geographical terms, these projects have been carried out in the Douro basin and the Ebro valley (Figure 1.1), so not many studies are known about 'off-site' materials on the Cantabrian rim. This does not mean that the use of household waste was not a common practice in maintaining the fertility of crop fields and, in particular, in intensive use gardens and orchards, as ethnographic evidence and historical sources show (García Fernández 1980; Peña Chocarro *et al.* 2003; Barandiarán, Manterola 2017; Davies 2019). But current farming practices make it difficult to identify and document this record.

Considering the number of potteries recovered for spatial unit, a major conclusion obtained comparing the different projects is the massive heterogeneity. As long as these variables are not related in a simple and linear pattern it cannot be assumed that the consumption of ceramics is uniform in all territories and in all historical periods (Witcher 2006). On the other hand, the very notion of waste and garbage is a cultural, contingent and contextual concept that cannot be defined from a contemporary perspective (González Ruibal, Vila 2018). In addition, when considering the volume of ceramics found in excavations it is evident that the number of fragments, the fragmentation index, the live span of some productions, the maintenance and repairing tasks markedly vary in chronological and territorial terms. In short, even assuming the 'manure hypothesis' as the main cause that would explain the presence of pottery carpets in crop fields, the interpretation of this record must be carried out with caution. And as some papers contained in this volume show, it is precisely the integration of other informative records that allows to suggest some types of inferences.

In qualitative terms, it is useful to consider in which chronological periods domestic waste seems to be more relevant in the fertilization processes of crop fields. A comparison between the six projects (Table 1.2) reveals the existence of significant differences. It can be suggested that these variations can be linked to different forms of social organization and articulation of agro-pastoral practices. Prehistoric occupations are visible, mainly, by the presence of flint and lithic materials. But it is particularly relevant the scarce representation of materials from Roman times in the plains of Valpierre or Álava, where an important number of sites of this period are known. The period between the Late Roman Empire and Late Antiquity is also underrepresented, except for the project carried out in Segovia. On the other hand, in some specific sectors of Northwestern Iberia the Middle Ages are widely represented, while in others they are totally invisible. It is also interesting to note the low number of Late Medieval findings in all projects. Furthermore, there are also important differences in the post-medieval period between the different projects.

Project	Km <sup>2</sup>	PR	RM	LRP	LA	EME	HME	LME	ME	CE
Brimeda	1,35									
C. Ladrero	73									
Valpierre	177									
Segisamo	500									
Segovia	18,1									
Álava	49									

Table 1.2. Representation of the different chronological periods in the non-sites presented in this volume (PR= Prehistory, RM= Roman; LRP= Late Roman Period; LA= Late Antiquity; EME= Early Medieval Period; HME= High Medieval Period; LME= Late Medieval Period; ME= Modern Age; CA= Contemporary Period)

Several causes can be proposed to explain this unequal distribution: the integration of livestock resources, the use of green fertilizers, agro-pastoral practices, the social organization of space and cultural behaviours, etc.

Another line of research to be explored is the social meaning of these fertilization practices. If we assume the hypothesis that the use of household waste is the result of the agency of subaltern groups, the trends observed in table 1.2 can constitute an indication to assess socio-political dynamics beyond the economics approaches. Besides, a more explicit theoretical reflection around concepts such as intensification, growth, contraction, crisis, or resilience would be of particular importance to interpretate the differences (Erickson 2006; Marcus, Stanish 2006; Thurston, Fisher 2007; Marston 2011).

Another variable that only some works have taken into consideration is the distance between inhabited places and the crop fields in which the recovered ceramic materials have been collected. In the Alava plain and in the valleys of Eresma and Voltoya, ceramics from historical periods have been collected at a remarkable distance from inhabited places, while at other times they are concentrated in proximity to the sites. This contrasts with some ethnographic inferences that have been assumed mechanically (Barandiarán, Manterola 2017). Indeed, traditional agriculture is very diverse in the different sectors of the northwest and has still been incorporated in a limited way by studies dedicated to agricultural archaeology. It is particularly striking that while prehistorians, usually British, have resorted very productively to ethnoarchaeology in places like Asturias (Charles *et al.* 2002; Halstead 2014; Moreno-Larrazabal *et al.* 2015; Bogaard *et al.* 2016), similar projects have rarely been developed in other sectors of Northwestern Iberia.

Finally, a better understanding of manure and agricultural practices requires a more integrated approach to a relevant number of sources. For instance, the written sources can provide relevant insights regarding the existence of specific spaces to gather and produce dung, such as the *femerales* in the Pyrenees (Utrilla



Utrilla 2019). Furthermore, it has been suggested that some holes and pits found in archaeological sites could be used to create manure, to improve agrarian lands (Malalana Ureña *et al.* 2013).

### **The Northwestern Iberia record**

It is also worth wondering, in the light of the experiences gathered in this volume, to what extent non-sites in Northwestern Iberia present some specific singularities that differentiate them from Mediterranean landscapes. It is not easy to answer this question, among other reasons, because the projects carried out in the Mediterranean area operate in very different geographical, historical, social, and cultural contexts. In the same way, neither the results offered by the case studies collected in this volume are uniform nor do they allow the generation of a specific 'model'. But with all these cautions, it may be helpful to suggest some traits.

It has already been pointed out that the volume of ceramics consumed in certain historical periods, as well as amortization and replacement terms or the values attributed to material culture are very different among the examples included in this volume, but also with respect to other projects carried out in the Mediterranean. Particularly during Antiquity and the Late Roman period the supply through sea and river routes might explain the frequency with which Roman sherds are found on the shores of the Mediterranean. Instead, consumption patterns appear to be different in some of the regions explored in this volume. However, there are notable differences between the project of Segovia and that of the Alava plain.

Another feature that characterizes the material record of the Mediterranean is the relevance of architectures made of stone, soil and ceramic roofs over time. On the other hand, the excavations and prospections carried out in the interior peninsula, the Alava plain or Astorga surroundings have shown the importance of architectures made with perishable building materials instead. As a result, the visibility of these constructions is compromised. And although non-site prospecting has rarely managed to process construction materials in some degree of detail, this is one of the challenges that should be addressed soon.

### **Conclusions**

Maintaining and improving land fertility has been one of the main concerns of pre-industrial agricultural societies, so agricultural practices have been modelled on balancing the different dedications, agencies and conflicts that characterise the different forms of mixed farming (Harris, Fuller 2014).

The papers of this book present several examples of integration of non-sites with other archaeological records, which allows to critically evaluate the nature of the inferences that can be made, the validity of the 'manure hypothesis', as well as the social dimension of traditional agrarian practices. Excavation provides relevant information about how waste is generated, stored, processed, and used in domestic environments, but 'off-site' records contribute to understand the results and silences obtained in excavations. In the same way, non-sites allow to interrogate from a fresh perspective the forest and mountainous spaces, whose importance is critical to understand the diversity of manure strategies. In other words, while the prospection records have become technical and sophisticated (Attema *et al.* 2020), a multiproxy strategy of intensive study of microregions allows to revalue the information provided by non-sites from new perspectives.

Non-site records cannot be explained solely from the 'manure hypothesis', but they contribute decisively to exploring landscapes and agro-silvo-pastoral practices from new perspectives. In addition, the absence of pottery carpets is often much more interesting than their presence when questioning relevant aspects of the functioning of rural societies.

Harmish Forbes (Forbes 2013) has argued that neither waste generation nor fertilization processes are a simple and ‘natural’ by-product of everyday life since they do not passively and simply reflect the nature of sites and social agencies. In other words, this author has suggested that ‘off-sites’ materials should be considered artifacts in themselves, the result of a process of filtering and intentional selection of the material culture in use in each community based on the values and meanings attributed in contextual terms. Consequently, the systematic collection of these records allows to explore the hidden meanings that have determined that some objects become part of a structured cycle of waste processing, while in other cases the useful life of the objects is extended or instead, they are totally excluded from these processing practices.

In conclusion, the ‘off-site’ record contributes to building a more holistic agrarian archaeology, breaking down the rigid divisions between cultivated, forest and mountainous spaces and domestic sites, between countryside and city, between agriculture and livestock.

### Acknowledgments

This research was supported by the project ‘Archaeology of the local societies in Southern Europe: identities, collectives and territorialities (5th-11th centuries) (PID2020-112506GB-C41) funded by the Spanish Ministry of Science and Innovation, the Research Group in Heritage and Cultural Landscapes (Government of the Basque Country, IT1442-22) and the Group of Rural Studies (Unidad Asociada UPV/EHU-CSIC).

### References

- Attema, P., Bintliff, J., van Leusen, M., Bes, P., de Haas, T., Donev, D., Jongman, W., Kaptijn, E., Mayoral, V., Menchelli, S., Pasquinucci, M., Rosen, S., García Sánchez, J., Gutierrez Soler, L., Stone, D., Tol, G., Vermeulen, F. and Vionis A. 2020. A Guide to Good Practice in Mediterranean Surface Survey Projects. *Journal of Greek Archaeology* 5: 1-62.
- Barandiarán, J.M. and Manterola, A. 2017. *Agricultura en Vasconia* (Atlas Etnográfico de Vasconia 8). Bilbao: Instituto Labayru.
- Bogaard, A., Hodgson, J., Nitsch, E., Jones, G., Styring, A., Diffey, C., Pouncett, J., Herbig, C., Charles, M., Ertuğ, F., Tugay, O., Filipovic, D. and Fraser, R. 2016. Combining Functional Weed Ecology and Crop Stable Isotope Ratios to Identify Cultivation Intensity: A Comparison of Cereal Production Regimes in Haute Provence, France and Asturias, Spain. *Vegetation History and Archaeobotany* 25.1: 57-73.
- Campana, S.R.L. 2018. *Mapping the Archaeological Continuum: Filling ‘Empty’ Mediterranean Landscapes*. New York: Springer.
- Charles, M., Bogaard, A., Jones, G., Hodgson, J. and Halstead, P. 2002. Towards the Archaeobotanical Identification of Intensive Cereal Cultivation: Present-day Ecological Investigation in the Mountains of Asturias, Northwest Spain. *Vegetation History and Archaeobotany* 11.1/2: 133-142.
- Criado Boado, F. 1993. Límites y posibilidades de la arqueología del paisaje. *SPAL: Revista de Prehistoria y Arqueología de la Universidad de Sevilla* 2: 9-56.
- Criado Boado, F. 1999. *Del terreno al espacio: planteamientos y perspectivas para la arqueología del paisaje*. Santiago de Compostela: Universidad de Santiago de Compostela.
- Davies, W. 2019. Gardens and Gardening in Early Medieval Spain and Portugal. *Early Medieval Europe* 27.3: 327-348.
- Davies, W. 2020. *Christian Spain and Portugal in the Early Middle Ages: Texts and Societies*. Abingdon: Routledge.
- Erickson, C.L. 2006. Intensification, Political Economy, and the Farming Community: Defense of a Bottom-up Perspective of the Past, in J. Marcus and C. Stanish (eds) *Agricultural Strategies*: 334-363. Los Angeles: UCLA Cotsen Institute of Archaeology.
- Forbes, H. 2013. Off-site Scatters and the Manuring Hypothesis in Greek Survey Archaeology: An Ethnographic Approach. *Hesperia* 82.4: 551-594.

- García Fernández, J. 1980. *Sociedad y organización tradicional del espacio en Asturias*. Gijón: Silverio Cañada.
- García Sánchez, J. and Cisneros, M. 2013. An Off-site Approach to Late Iron Age and Roman Landscapes on the Northern Plateau, Spain. *European Journal of Archaeology* 16.2: 289-313.
- García Sanjuán, L. 2005. *Introducción al reconocimiento y análisis arqueológico del territorio*. Barcelona: Ariel.
- González Ruibal, A. and Vila, X.A. 2018. *Arqueología: una introducción al estudio de la materialidad del pasado*. Madrid: Alianza.
- Halstead, P. 2014. *Two Oxen Ahead: Pre-mechanized Farming in the Mediterranean*. Chichester: Wiley-Blackwell.
- Jones, R. 2012. *Manure Matters: Historical, Archaeological and Ethnographic Perspectives*. Farnham: Ashgate.
- Larrea Conde, J.J. 2007. Construir iglesias, construir territorio: las dos fases altomedievales de San Román de Tobillas (Álava), in J. López Quiroga, A.M. Martínez Tejera and J. Morín de Pablos (eds) *Monasteria et territoria: elites, edilicia y territorio en el Mediterraneo medieval (siglos V-XI)* (BAR International Series 1720): 321-336. Oxford: Tempvs Reparatum.
- Malalana Ureña, A., Morín de Pablos, J. and Barroso Cabrera, R. 2013. Acerca de la funcionalidad de los denominados 'silos-basureros': una propuesta metodológica para el estudio de la agricultura andalusí en época califal y taifa. *Archeologia Medievale* 40: 337-352.
- Marcus, J. and Stanish, C. (eds) 2006. *Agricultural Strategies*. Los Angeles: UCLA Cotsen Institute of Archaeology.
- Marston, J.M. 2011. Archaeological Markers of Agricultural Risk Management. *Journal of Anthropological Archaeology* 30.2: 190-205.
- Mayoral Herrera, V. and Sevillano Perea, L.A. 2013. Prospección, paisaje y el 'gran cuadro' de la historia agraria: una revisión crítica y algunas propuestas. *Comechingonia Virtual: Revista Electrónica de Arqueología* 17.2: 31-56.
- Moreno-Larrazabal, A., Teira-Brion, A., Sopelana Salcedo, I., Arranz Otaegui, A. and Zapata Peña, L. 2015. Ethnobotany of Millet Cultivation in the North of the Iberian Peninsula. *Vegetation History and Archaeobotany* 24.4: 541-554.
- Orejas Saco del Valle, A. 2006. Arqueología espacial: espacios agrarios. *Arqueología Espacial* 26: 7-378.
- Orejas Saco del Valle, A. and Ruiz del Árbol Moro, M. 2013. Arqueología del paisaje: procesos sociales y territorios, in J.A. Quirós Castillo (ed.) *La materialidad de la historia: la arqueología en los inicios del siglo XXI*: 201-240. Madrid: Akal.
- Peña Chocarro, L., Zapata Peña, L. and González Vázquez, A. 2003. Las huertas en el ámbito rural de Euskal Herria: aproximación etnográfica en los municipios de Otxandio, Zaldibar y Zalla. *Zainak: Cuadernos de Antropología-Etnografía* 22: 187-214.
- Poirier N. 2010. *Un espace rural à la loupe: paysage, peuplement et territoires en Berry de la préhistoire à nos jours*. Tours: Presses Universitaires François-Rabelais.
- Quirós Castillo, J.A. and Tejerizo García, C. 2020. Filling the Gap: Peasant Studies and the Archaeology of Medieval Peasantry in Light of the Northern Iberian Evidence. *Journal of Agrarian Change* 21.2: 377-395.
- Schiffer, M.B. 1987. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press.
- Thurston, T.L. and Fisher, C.T. (eds) 2007. *Seeking a Richer Harvest: The Archaeology of Subsistence Intensification, Innovation, and Change* (Studies in Human Ecology and Adaptation 3). New York: Springer.
- Utrilla Utrilla, J.F. 2019. Hábitat y recursos naturales en los Pirineos centrales aragoneses (siglos XI-XV), in A. Villaró (ed.) *Actes III Congrès Internacional d'Història dels Pirineus*: 19-33. Andorra: Institut d'Estudis Andorrans.
- Witcher, R.E. 2006. Broken Pots and Meaningless Dots? Surveying the Rural Landscapes of Roman Italy. *Papers of the British School at Rome* 74: 39-72.