eSCOPES project. Evolving spaces: coastal landscapes of the Neolithic in the European Land's Ends

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Background and objectives

Coastal areas have been poles of population attraction since the early Prehistory. At present, sea-level rise is one visible effect of climate change and human activity is also threatening much of the coastal and island territory on a global scale. In this context, the vulnerability of coastal heritage is increasingly coming into focus, particularly in areas like the European Atlantic façade where the combined results of sea-level rise, coastal environment dynamics and human activity are significantly altering the coastline.

The eSCOPES Project (Evolving spaces: coastal landscapes of the Neolithic in the European Land's Ends, Marie Curie-IEF, PI E. López-Romero, supervisor Chris Scarre, Durham University) was the result of previous research experience on coastal and island archaeology and on coastal heritage vulnerability. The project aimed at:

1. Contributing to the understanding of human dynamics in the coastal landscape from the Middle Neolithic to the Early Bronze Age in Atlantic Europe (c. 4500-2200 BC) through trans-regional analysis of the archaeological evidence.

2. Assessing vulnerability of the coastal archaeological heritage and providing tools for its management.

The project, initiated in May 2013 and running until April 2015, used close-range photogrammetric techniques as a cost-effective solution to record, model and monitor both minor and major changes in the architectonic structure of selected case studies in a number of areas of the European Atlantic façade.

The initial fieldwork campaign took place in September 2013. Six archaeological sites (two megalithic monuments in Brittany, western France, and four in Guidoiro Areoso islet in Galicia, north-west Spain) located in different environmental settings and with different structural characteristics were recorded with extensive photographic documentation.
A second and third campaign of recording were undertaken at the same sites in March and September 2014 to provide a snapshot of the changes in operation over a 6- and 12-month timescale. Topographic reference points, combined with a series of control point measurements will allow the Digital Surface Models for each site to be accurately compared.
Further research in 2014 applied this approach to archaeological sites on the Scilly archipelago in south-west Britain, with a focus on Halangy Porth (Saint Mary's; López-Romero et al. 2016).

Results

The project consisted of 7 tasks: Constructing tools for the management of the project (task1), Documenting the archaeological sites (task2), Modelling and mapping site spatial location (task3),

Documenting approaches to coastal vulnerability (task4), Assessing vulnerability (task5), Monitoring coastal site erosion (task6), Dissemination (task7). Tasks 1 to 3 were developed during Year1. Tasks 4 to 6 were developed during Year2. Task7 was developed during Year1 and Year2.

By completing these tasks the project reached several achievements that were of relevance for the European Research Area:

- eSCOPES contributed to the transnational analysis of prehistoric monumental architectures through the analysis of the different case studies of the project. It took the discussion of specific regional areas from the traditional local and regional scales to the international (European Atlantic) scale. This traditional localism in the research history of prehistoric monumental landscapes was one of the aspects that motivated the Grant Proposal.

- eSCOPES significantly contributed to the set up of innovative methodologies for the analysis and monitoring of eroding coastal archaeological sites, namely through the use of close-range photogrammetry methods (Structure from Motion – SfM). The project demonstrated that SfM can be used by both researchers and policy makers as part of the decision-making process concerning coastal heritage at risk.

- eSCOPES contributed to build an international network on the topics covered by the project. Through this project the links between several British, French and Spanish institutions were consolidated and are still active today. The project and the activities and collaborations initiated during the period it was running involved -at different levels- members of the Department of Archaeology at Durham University, the Institute of Hazard, Risk and Resilience (IHRR, Durham University), the Southampton Maritime Archaeology Trust, the St. Andrews University and the SCAPE Trust (Scotland), the Institute of Heritage Sciences (Incipit-CSIC, Spain) and the French National Research Council (CNRS). Several research initiatives and publications resulted from these collaborations (see below "Related references").
The celebration of the seminar “Current trends in coastal heritage vulnerability and resilience on the European Atlantic façade” (3rd June 2014, Durham University: https://www.dur.ac.uk/archaeology/conferences/current/currenttrends/) and the EAA session "Engaging the public with archaeology threatened by climate change" (EAA Annual Meeting, Glasgow, 2015) were relevant milestones in this sense. This EAA session not only confirmed the success of these collaborations but also showed how important engaging with the public was to the objectives of the project. The session was the starting point for the publication of a more specific edited monograph on archaeology and public engagement by Oxbow Books (Dawson, Nimura, López-Romero & Daire, ed. 2017).

- In this line, eSCOPES also implemented an original initiative called "Guidoiro Dixital". This initiative aimed at recovering private photographic and video archives of one of the study regions (Galicia), to integrate them into the analysis, to engage on a dialogue with local communities and to regularly provide them with information on the advances and results of the project. A series of tools were created to achieve these objectives:

- a HistoryPin project (https://www.historypin.org/en/person/54782)
- a blog and information website (http://guidoirodixital.wordpress.com/)
- a Facebook page (www.facebook.com/guidoirodixital)
- a Google+ page (https://plus.google.com/118411261666364325005/).

Five years after the end of the project the Facebook page and the blog and information website remain active, having become a forum for information and news on coastal archaeological research and management.

Additional information on the project and its results are available at the official CORDIS (EU research results) webpage:

https://cordis.europa.eu/project/id/328753

Knowledge transfer and Public outreach

Added to the aforementioned "Guidoiro Dixital" initiative, a series of press releases, magazine publications and radio interviews were planned during and after the duration of the project. These included a short TV documentary on one of the regional case studies for the Spanish National TV (RTVE: https://www.youtube.com/watch?v=P7S26rRv-sg).

All these public outreach activities have given extraordinary visibility to the project and have contributed to a better awareness of the relevance of coastal archaeological research and of the consequences of coastal heritage loss at the national and European levels.

Other outcomes

During the duration of this project and in connexion with it, Dr. López-Romero was awarded one of the 2013-2014 research Small Grants by the Institute of Hazard, Risk and Resilience at Durham University. This allowed -among other activities- for the organisation of the aforementioned seminar "Current trends on coastal archaeology vulnerability and resilience" (Durham, 3 June 2014).

Steaming from this EU-funded research project, and after leaving Durham, Dr. López-Romero continued his line of research on coastal and prehistoric landscapes of the European Atlantic façade as well as his research collaboration with members of the Department of Archaeology. As an example of this, he has recently been involved in the publication of the research project on the megalithic monuments of Western Iberia led by Prof. Chris Scarre (Scarre & Oosterbeck, ed. 2019).

The line of research initiated with eSCOPES continued and was crucial for Dr. López-Romero being awarded in 2017 a three-year International Junior Chair at the Bordeaux Archaeological Sciences Cluster of Excellence (LabEx LaScArBx) in France, where he developed the project "The memory of place: meaning, evolution and re-signification of space in the Neolithic of Western Europe" (January 2017-November 2019).
In December 2019, he was appointed Associate Professor in the Dept. of Prehistory, Archaeology and Ancient History at Universidad Complutense in Madrid, one of the Top 100 universities in Archaeology (QS World University Rankings for Archaeology).

Related references

The following references constitute some of the main publications resulting from the project and from the activities and collaborations initiated during the period it was running.

DAWSON, T., NIMURA, C., LÓPEZ-ROMERO, E. & DAIRE, M.Y. (ed.) 2017. Public Archaeology and Climate Change. Oxbow Books, Oxford & Philadelphia. ISBN: 9781785707049.

LAPORTE, L., DAIRE, MY, KERDIVEL, G & LÓPEZ-ROMERO, E. 2015. Back and forward: Neolithic standing stones and Iron Age stelae in French Brittany. In Diaz-Guardamino, M., Garcia-Sanjuan, L & Wheatley (ed) The Lives of Prehistoric Monuments in Iron Age, Roman and Medieval Europe. Oxford Univ. Press: 141-162.

LÓPEZ-ROMERO, E. 2017. Megalitismo y monumentalidad en la Prehistoria de la Península Ibérica. In P. López García (coord.) La Prehistoria en la Península Ibérica. Ed. Itsmo-Akal, Madrid: 439-536. ISBN: 978-84-7090-488-2.

LÓPEZ-ROMERO, E., VILASECO VAZQUEZ, X.I., MAÑANA-BORRAZAS, P. & GUIMIL FARIÑA, A. 2017. Recovering information from eroding and destroyed coastal archaeological sites: a crowdsourcing initiative in NW Iberia. In Dawson, T., Nimura, C., López-Romero, E. & Daire, MY (ed.) Public Archaeology and Climate Change, Oxbow Books, Oxford & Philadelphia: 72-80.

LÓPEZ-ROMERO, E., MAÑANA-BORRAZAS, P., GUIMIL FARIÑA, A. & DAIRE, MY. 2016. Archaeology and coastal erosion: monitoring change through 3D digital techniques. In Kamermans, H, De Neef, W, Piccoli, C, Posluschny, A. & Scopigno, R. (ed.) The three dimensions of Archaeology. UISPP XVII World Congress, Burgos (Spain), 1-7 Sep. 2014: 89-97.

LÓPEZ-ROMERO, E., GÜIMIL-FARIÑA, A., MAÑANA-BORRAZÁS, P., OTERO VILARIÑO, C., PRIETO MARTÍNEZ, P., REY GARCÍA, J.M., VILASECO VÁZQUEZ, X.I. 2015. Ocupación humana y monumentalidad durante la Prehistoria Reciente en Guidoiro Areoso (Ría de Arousa, Pontevedra). Investigaciones en el marco de las dinámicas litorales atlánticas actuales. Trabajos de Prehistoria 72(2): 353-371.

LÓPEZ-ROMERO, E., MAÑANA-BORRAZÁS, P., GÜIMIL-FARIÑA, A., VILASECO VÁZQUEZ, X.I. 2015. "Guidoiro Dixital" An initiative to recover lost scientific information from private image archives. The European Archaeologist. Newsletter of the European Association of Archaeologists 43: 90-93.

LÓPEZ-ROMERO, E. 2014. 'Out of the box': exploring the 3D modelling potential of ancient image archives. Virtual Archaeology Review 5(10): 107-116.

LÓPEZ-ROMERO E., MAÑANA-BORRAZÁS, P., DAIRE, MY & GÜIMIL-FARIÑA, A. 2014. The eSCOPES Project: preservation by record and monitoring at-risk coastal archaeological sites on the European Atlantic façade. Antiquity (Project Gallery) 088(339) http://antiquity.ac.uk/projgall/lopez-romero339/

LÓPEZ-ROMERO, E. 2013. Managing coastal archaeological heritage at risk: The ALERT Mobile App. Institute of Hazard, Risk & Resilience Newsletter 6(3): 9-10. https://www.dur.ac.uk/ihrr/newsletter/

NIMURA, C., DAWSON, T., LÓPEZ-ROMERO, E. & DAIRE, MY. 2017. Public archaeology and climate change: reflections and considerations. In Dawson, T., Nimura, C., López-Romero, E. & Daire, MY (ed.) Public Archaeology and Climate Change, Oxbow Books, Oxford.

SCARRE, C. & LÓPEZ-ROMERO, E.. 2019. Chapter 3: The regional context. In Scarre, C. & Oosterbeck, L. (ed.) *Megalithic Tombs in Western Iberia: excavations at the Anta da Lajinha*. Oxbow Books, Oxford: 89-138.