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## O Penedo dos Lobos: Roman military activity in the uplands of the Galician Massif (Northwest Iberia)

João Fonte <sup>a</sup>, Jose Manuel Costa-García <sup>b,c</sup> and Manuel Gago <sup>d</sup>

<sup>a</sup>Department of Archaeology, University of Exeter, Exeter, UK; <sup>b</sup>Departamento de Prehistoria, Historia Antigua y Arqueología, Universidad de Salamanca, Spain; <sup>c</sup>Departamento de Historia, Universidade de Santiago de Compostela, Spain; <sup>d</sup>Departamento de Cc. da Comunicación, Universidade de Santiago de Compostela, Spain

### ABSTRACT

A new Roman military site was recently detected in Galicia, Spain, an area where the army presence had been challenging to trace until date. O Penedo dos Lobos is a playing-card shaped camp with very distinctive, fortified entrances. The archaeological survey conducted on this site in the summer of 2018 allowed us to recover some elements of Roman *militaria*, as well as numismatic evidence dating back to late 1<sup>st</sup> c. BC, thus suggesting a connection with the Cantabrian-Asturian Wars of Augustan times. However, there is still some uncertainty regarding the specific task undertaken by the military contingent that occupied this site. Besides its historical implications, a focus will be given to the methodology applied for the archaeological survey of this site. This has shed new light on the Roman military presence in Galicia, allowing its integration into wider European debates on Roman conquest and expansion.

### RESUMEN

Recientemente se detectó un nuevo sitio militar romano en Galicia, un área donde la presencia del ejército había sido difícil de rastrear hasta la fecha. O Penedo dos Lobos es un campamento en forma de naipes con entradas fortificadas muy distintivas. El estudio arqueológico realizado en este sitio en el verano de 2018 nos permitió recuperar algunos elementos de *militaria* romana, así como pruebas numismáticas que datan de finales del siglo I a. C. que sugieren una conexión con las guerras cántabro-astures de la época de Augusto. Sin embargo, aún existe cierta incertidumbre sobre la tarea específica que llevó a cabo el contingente militar que ocupó este sitio. Además de sus implicaciones históricas y arqueológicas, nos centraremos en detalle en la metodología aplicada en el estudio de este sitio. Esto nos ha permitido arrojar nueva luz sobre la presencia militar romana en Galicia, permitiendo su integración en los debates europeos más amplios sobre la conquista y la expansión romana.

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## Introduction

The beginning of the Roman conquest of the Iberian Peninsula is linked with the Second Punic War. In 218 BC, a Roman army commanded by *Publius Cornelius Scipio* landed in the Greek colony of *Emporion* (modern-day Ampurias, Girona) to fight the Carthaginians. The Roman victory nearly twenty years later meant annexing the former Punic settlements in the Mediterranean coastal areas and laid the foundations for future inland expansion.

During the 2<sup>nd</sup> century BC, Rome faced strong opposition from the various peoples who inhabited those lands. By taking advantage of their knowledge of the terrain and using guerrilla warfare, Lusitanians and Celtiberians drew on the weaknesses of the Roman army and dynamited its supply networks. Only an energetic response in the 130s BC managed to reverse the situation, but the crisis of the Roman Republic periodically loosened the Roman yoke on the peninsula during the following decades.

The last phases of the conquest (late 2<sup>nd</sup> to late 1st century BC) took place in northern Iberia. Partly due to the absence of detailed written records, the sequence of events is still poorly known, and the role played by modern-day Galicia and northern Portugal in these events is unclear (Costa-García, Fonte, and Gago 2019). We know that Emperor *Augustus* set himself the task of conquering the northernmost territories and completing the conquest of Iberia as part of his political strategy. In 19 BC, his legions subjugated the Cantabrians and Asturians after a costly eight-year mountain war. In the last decades, several archaeological sites related to the wars have been found in Asturias and Cantabria, supporting the traditional narrative (Peralta Labrador, Camino Mayor, and Torres-Martínez 2019).

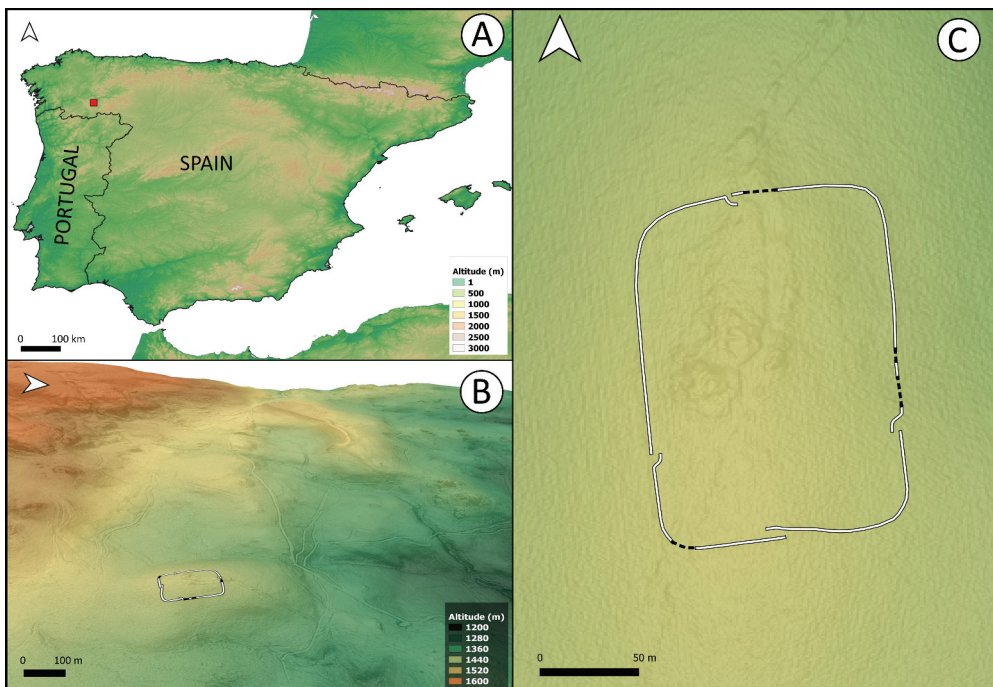
O Penedo dos Lobos was the first of several military sites to be validated as a Roman camp in Galicia and northern Portugal (Costa-García, Fonte, and Gago 2019). The study and dating of a Roman military site in an area where it was taken for granted that there was none logically has great relevance and could raise new historical questions. However, the material evidence related to these sites can often be very elusive due to their temporary nature (Peralta Labrador 2002), and a specific methodology integrating different techniques was developed to extract as much archaeological information as possible from the site. A minimal invasive survey was implemented, allowing us to document its morphology in detail and recover some artefacts that contributed to its precise dating. Ultimately, this allowed us to contextualize the site historically.

In line with this paper, recent approaches to conflict archaeology and the archaeology of the Roman conquest in other parts of Europe (e.g. Roymans and Fernández-Götz 2015; Fernández-Götz and Roymans 2018; Fitzpatrick and Haselgrove 2019; Roymans and Fernández-Götz 2019) have highlighted the 'dark side of the Empire' related to the process of Roman expansion and its interaction with local communities (Fernández-Götz, Maschek, and Roymans 2020). However, we also have to take into account the diversity of tasks and functions of the Roman Army, going beyond campaigning and war (Fischer and Bishop 2019).

## O Penedo dos Lobos Roman military camp

In opposition to what happens in other areas of northern Iberia, very little is known about the Roman conquest during the 2<sup>nd</sup> and 1<sup>st</sup> c. BC of what today is Galicia (Spain) and northern Portugal (Camino Mayor, Peralta Labrador, and Torres Martínez 2015; Morillo 2016; Peralta Labrador, Camino Mayor, and Torres-Martínez 2019; Martín Hernández et al. 2020; Menéndez Blanco et al. 2020; Morillo et al. 2020, 2021; Vicente García 2020; Vicente García and Díaz Jiménez 2021). The classical literary sources focused on this time and place are scarce, fragmentary and partial, and the archaeological data directly linked to this phenomenon is rare. For decades, this reality has impeded the development of innovative historical narratives. Only recently, the discovery and study of sites such as O Penedo dos Lobos (Manzaneda, Ourense) is providing us with new tools to address this problem (Costa-García, Fonte, and Gago 2019).

Located in the uplands of the Galician Massif (Figure 1(a, b)), the site was first detected by a local enthusiast who brought it to our attention after being aware of our systematic survey of the Galician territory by using remote sensing techniques (Costa-García et al. 2016). After a preliminary inspection on the field, the site was notified to the regional Heritage management authorities,<sup>1</sup> catalogued<sup>2</sup> and subsequently published (Costa-García et al. 2016). In August 2018, a more systematic archaeological survey was carried out, aiming to validate the preliminary hypothesis of this enclosure being a Roman military camp (Fonte and Costa-García 2019).

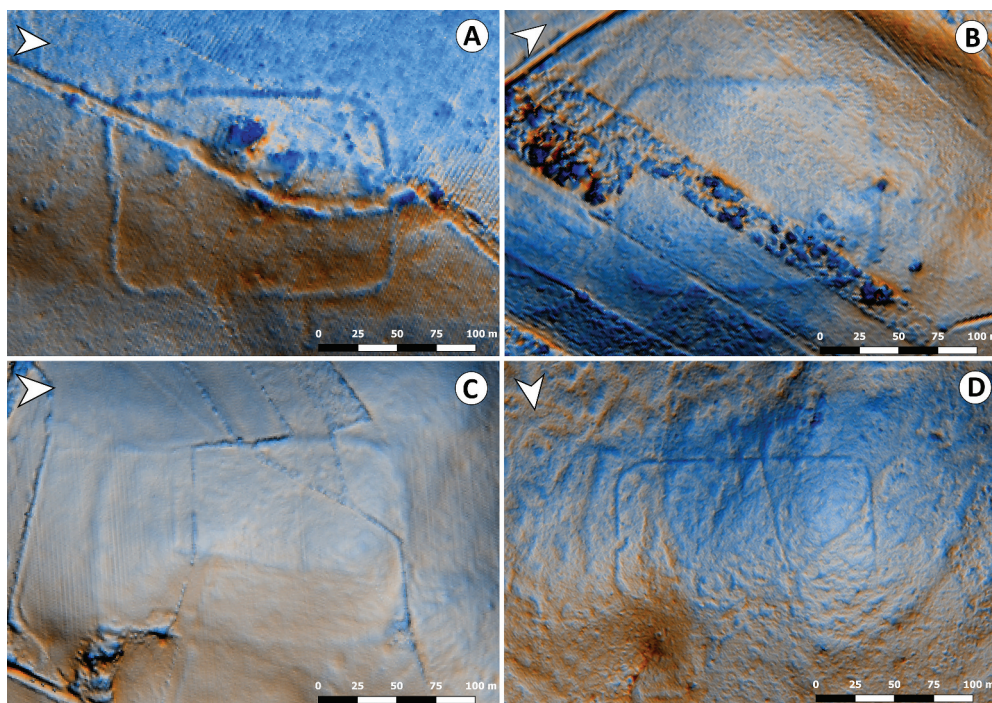


**Figure 1.** Location (A), topographic setting (B) and plan view (C) of O Penedo dos Lobos Roman camp.



Following the most characteristic plans of these temporary fortifications (Camino Mayor, Peralta Labrador, and Torres Martínez 2015; Costa-García 2018a, 2018b; Davies and Jones 2006; Jones 2011, 2012; Peralta Labrador 2002; Peralta Labrador, Camino Mayor, and Torres-Martínez 2019; Reddé 2008; Reddé et al. 2006; Welfare and San 1995), the O Penedo dos Lobos enclosure adopts a playing-card layout with straight sides and rounded corners (Figure 1c). However, the line of the eastern rampart curves inwards slightly, probably to avoid some topographical features. The site is about 178–183 m long (N-S) and 129–134 m wide. This way, the fortification occupies a total surface of c. 2.30 ha. The morphology and size of this enclosure are very similar to other sites identified in Galicia and northern Portugal (Costa-García, Fonte, and Gago 2019, 25–26) (Figure 2), and more typological parallels exist across the wider Iberian Peninsula (Costa-García 2016; García Merino 1996; Loewinsohn 1965; Menéndez Blanco et al. 2020).

The camp has four fortified entrances: two of them are located in a central position along the shorter sides (south and north), while the other two were placed towards the southern end of the longer ramparts (west and east). This position could indicate the camp's orientation towards the south, but it is impossible to confirm this point without knowing its internal layout. Unlike the others, which are reinforced by curving lengths of rampart protruding into the interior known as *claviculae* (Jones 2009; Lenoir 1977; Reddé



**Figure 2.** Airborne LiDAR-derived resampling filter visualizations (Conrad et al. 2015) of other sites similar to O Penedo dos Lobos in Galicia and northern Portugal (Costa-García, Fonte, and Gago 2019, 26, Figure 4): O Penedo dos Lobos (A), Cova do Mexadoiro (B), O Coto do Rañadoiro (C), Alto da Pedrada (D).

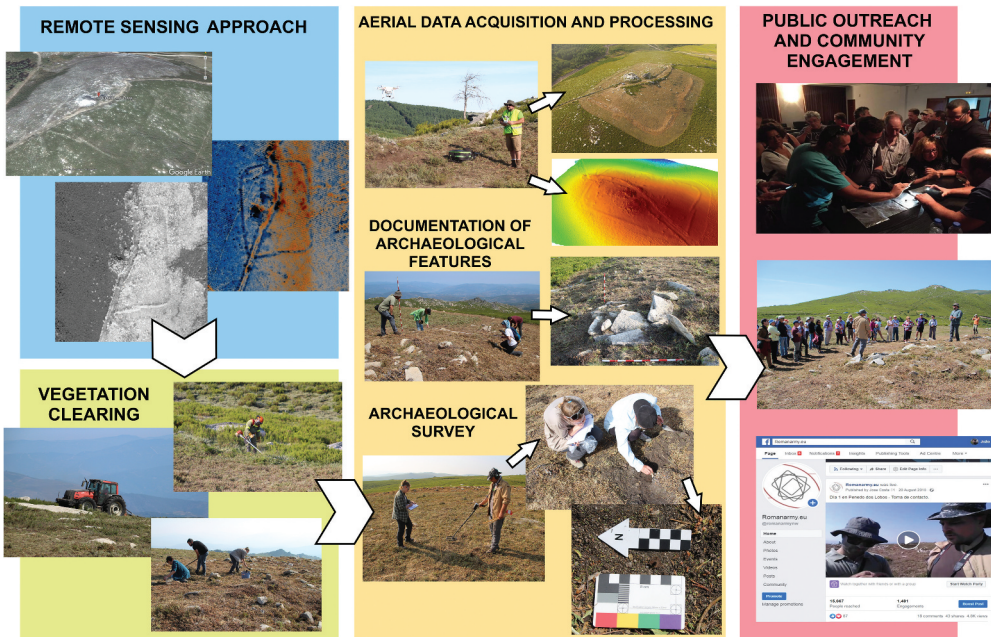


Figure 3. Methodological workflow.

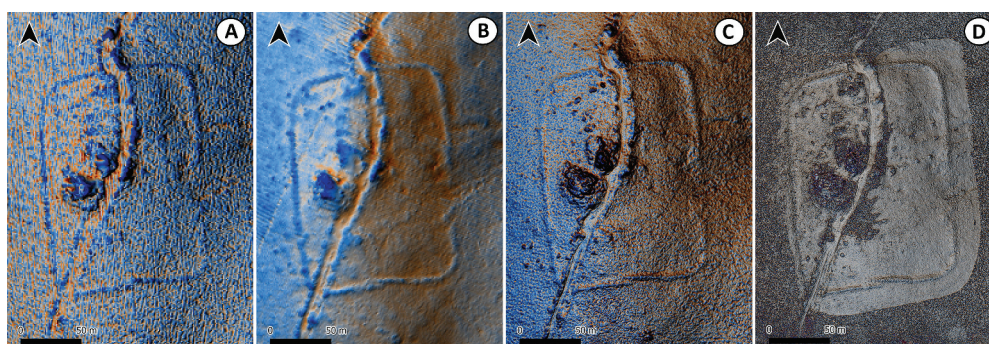
1995), the southern entrance shows the parallel arrangement of two lengths of rampart forming a corridor, like a form of barbican entrance. This way, access to the camp had to be carried out through a narrow corridor.

This type of entrance is not common in Iberia, although it has already been identified in other Roman camps located in the Cantabrian Mountains (Camino Mayor, Peralta Labrador, and Torres Martínez 2015; Costa-García et al. 2016; Peralta Labrador, Camino Mayor, and Torres-Martínez 2019). Two entrances of this type can be found in El L. laurienzu (Asturias) (Costa-García et al. 2016, 54–55; Martín Hernández 2015, 244–245), and a similar one could be giving access to the northern area of El Juncal camp (Cantabria) (Vicente García 2020). Both sites are directly related to the Augustan campaigns against the *Cantabri* and *Astures* (29–19 BC), a chronological clue later to be supported by the dating finds, discussed below.

Regarding its location, the site is placed on a spur (1465 m a.s.l.) from which it is possible to proactively control mobility through this upland landscape (Figure 1b). The camp faces a route halfway up the slope of the Manzaneda mountain range – the highest part of the Galician Massif – that ends a little further west in a small natural passage. This is an upland area with adverse weather conditions during autumn and winter seasons today, implying that the site was never meant to serve as a permanent garrison for a military unit.

The presence of a temporary fortification raises some important questions regarding the nature of Roman military presence in the area. Considering the hectic military activity recorded in the neighbouring, mountainous areas of Asturias and León (Orejas et al. 2015; Vidal Encinas et al. 2018), could this site be somehow linked with the Augustan campaigns against the *Astures* (29–22 BC)? Alternatively, could O Penedo dos Lobos be related to





**Figure 4.** Resampling filter visualization technique (Conrad et al. 2015) applied to different DEMs. 1 m LiDAR-derived DTMs (2009 -A- and 2016 -B-); 7 cm UAV-derived photogrammetric DSM (2017, uniform vegetation coverage, C); and 1.7 cm UAV-derived photogrammetric DSM (2018, after vegetation clearing, D).

other tasks in the periphery of this conflict zone, such as scouting, the control of rebelling natives or the training of auxiliary troops? Ultimately, the archaeological survey described below allowed us to gather new data that will enable us to build a more informed historical narrative on the Roman military presence in this upland area.

## Material and methods

The detailed recording of the O Penedo dos Lobos Roman camp using remote sensing techniques supported the characterization described above.

The available Airborne LiDAR for this area was used. It includes two time coverages (2009 and 2016) made available by the IGN (*Instituto Geográfico Nacional*: <http://www.ign.es/>) in the framework of the PNOA programme (*Plan Nacional de Ortofotografía Aérea*: <http://pnoa.ign.es/>). It has an average density of 0.5 points/square metre. The data was processed in LAStools (<https://rapidlasso.com/lastools/>) for DTM (Digital Terrain Model) generation and then different visualization techniques were applied to highlight micro-topographic details (Conrad et al. 2015; Kokalj and Somrak 2019).

In addition, there is public access in Spain to several series of aerial coverages within the framework of the IGN-PNOA programme. This includes diverse RGB (Red, Green, and Blue) and NIR (Near Infrared) series of orthoimages with 25–50 cm resolution, taken between 2004 and 2018 at different times of the year, depending on the region (resolution and specifications: <https://pnoa.ign.es/vuelo-fotogrametrico>). Additional historical aerial coverages are also available: USAF (United States Air Force) Series A (1945–1946) and B (1956–1957), *Interministerial Flight* or IRyDA (*Instituto Nacional de Reforma y Desarrollo Agrario*) (1973–1986), *Nacional Flight* (1980–1986), and *Quinquenal Flight* (1998–2003) (resolution and specifications: <http://pnoa.ign.es/pnoa-historico>).

A UAV (Unmanned Aerial Vehicle) survey was undertaken before and after the vegetation clearing of the site, in December 2017 and August 2018, respectively. This allowed for the more detailed recording of the site morphology and archaeological features (see Figure 4).

Once the archaeological potential of the site was assessed, a specific multiscale and multisensor methodology combining different techniques was developed to answer the questions already raised by the initial research (Figure 3). This strategy was based on similar works developed in Roman military sites elsewhere and targeted the detailed recording of the surviving archaeological features and collecting a representative sample of the material culture (e.g. Brown et al. 2017; Bellón Ruiz et al. 2016, 2017; Grote 2014; Hornung 2018; Jones 2012; Noguera, Principal, and Naco del Hoyo 2014; Noguera, Ble, and Valdés Matías 2015; Torres-Martínez et al. 2016). Unfortunately, the opening of exploratory trenches to assess and record the defensive system of the camp was not possible due to funding limitations.

In August 2018, the site was almost completely covered with low vegetation – mainly bushes of the *genista* and *ericae* genera – that made archaeological investigation unpractical. During the clearing process, not only the presence of archaeological features was considered but also the terrain unevenness and the existence of several granite outcrops. For these reasons, both mechanical and manual means were used.

This action gave us the opportunity to perform a more precise UAV survey. Three hundred and seventy-seven aerial photographs were taken at a uniform altitude of 60 m following a predefined flight-plan and photogrammetrically processed using structure from motion and multi-view stereo algorithms (Campana 2017; Nex and Remondino 2014; O'Driscoll 2018; Verhoeven et al. 2012). The accuracy of the drone survey was improved with the acquisition of 12 ground control points regularly distributed throughout the site and collected with a Leica 1200 GPS-RTK. A Digital Surface Model (DSM) with a resolution of 3.4 cm/pixel and an orthophoto with a resolution of 1.7 cm/pixel were obtained<sup>3</sup> (Figure 4).

Following the principles of both archaeological stratigraphy (Carandini 1991; Harris 1979) and the Archaeology of Architecture discipline (Mañana-Borrazás, Blanco-Rotea, and Ayán Vila 2003), a detailed study and recording of the archaeological features as seen on the surface was carried out. Several stratigraphic units (UE, Spanish acronym corresponding to *Unidad Estratigráfica*) were recorded, and they supported the definition of a relative dating sequence. The UE were grouped into their various construction and demolition phases, and then relatively dated.

Surface artefact collection was undertaken across the interior (Banning 2002; Bintliff 2013) to evaluate the archaeological potential of the site and recover material culture that would allow us to characterize it better. Knowing that pottery is almost non-existent in these sites due to their temporary occupation, a metal-detecting survey was also undertaken (Noguera, Ble, and Valdés Matías 2015; Peralta Labrador 2002). Given the impossibility of prospecting the site in its entirety – due to logistical reasons –, two main study areas were defined: a larger, continuous space to the south of the enclosure to prospect systematically, and another area to the northwest where survey followed a non-continuous, chequerboard strategy. In total, nine survey sub-areas (PA, after *Prospection Area*) were defined, covering a total extension of 0.51 ha.

While some of the metal objects were recovered on the surface, others had to be extracted from the earth by excavating 30 × 30 cm artefact recovery holes. Only the superficial layer (5–10 cm) was removed in order not to alter the site's stratigraphy, but the bedrock usually appeared immediately below it. The precise location of all the artefacts recovered was collected by using a GPS-RTK with centimetre accuracy.

Once the archaeological intervention was over, some of the objects were conserved.<sup>4</sup> Following their study and the preparation of the archaeological reports required by the Heritage laws, the archaeological objects were handed over to the *Museo Arqueológico Provincial de Ourense* (Ourense, Spain).

Additionally, different communication strategies were employed to inform the local community about the findings (Gago et al. 2017; García Sánchez et al. 2019) (Figure 3). Due to the remoteness of the camp, the social media and web platforms of the romarmy.eu research collective were intensively used to reach a wider audience. Every day at noon, a live report was made from the site, broadcasted on Facebook, with the purpose of increased engagement with the project. The script combined the interpretation of the site and its context, and explanations of archaeological techniques and findings. A presentation of the preliminary results to the local community of Manzaneda and open and guided visits to the site were made at the end of the survey. Additionally, press releases and the personal contact with media journalists allowed us to reach a third level of wider social impact.

## Results

### *Recording of archaeological features*

Up to 16 stratigraphic units (UE) were recorded on the site (Figure 5 and 6), resulting in a sequence where four building/destruction activities and three chronological phases can be defined. Nine stratigraphic units belong to the Phase 1, comprised by only one activity (101): the construction of the defences of the Roman camp (UE 001, 002, 004, 005, 007, 009, 011, 012 and 013). These defences were probably built as one event, given their morphological similarities. No subsequent alterations were recorded.

The most recognizable part of the defensive rampart is a dry-stone revetment along the front and rear faces, formed from carefully laid rows of granite blocks (Figure 7(a, b)). Throughout the site, evidence of stone extraction and cutting marks in the granite outcrops was recorded, revealing the local provenance of the building materials. In some sections, the vegetation clearing also revealed that a small embankment served as a foundation for this structure (Figure 7c). In its current state of preservation, the earth and stone rampart is about 1.8–2.4 m wide and 0.5 m high. The presence of an outer ditch has not yet been confirmed. Either it was a shallow feature now filled in, or it never existed. These arrangements are not uncommon in mountainous, rocky areas (Costa-García et al. 2020; Peralta Labrador 2002). The four fortified entrances were perfectly recognizable from the air and on the surface (Figure 7d and Figure 8).

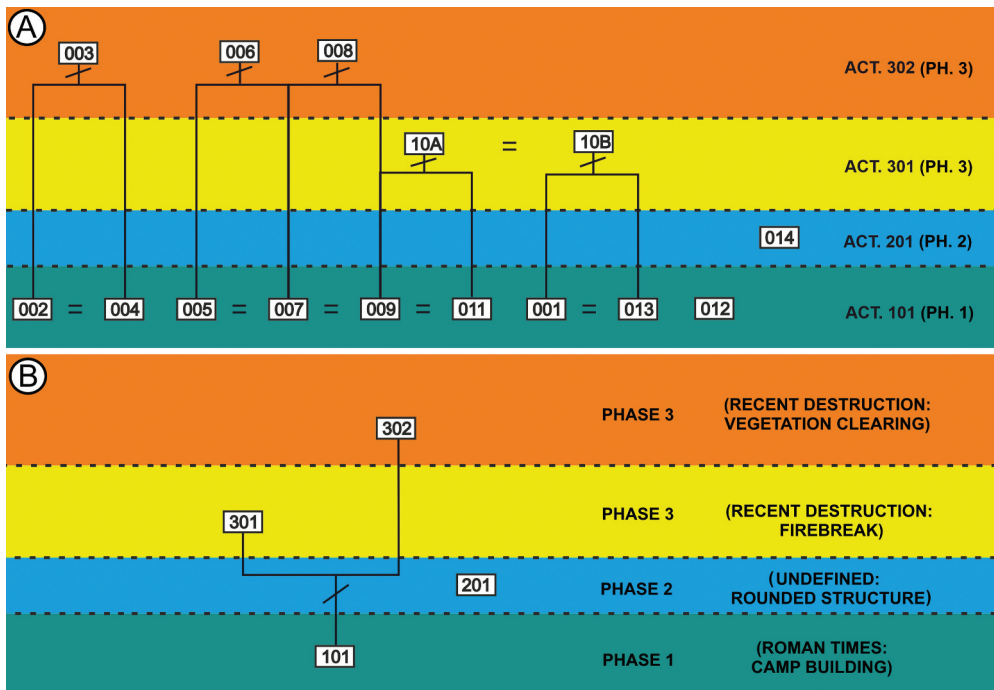
The defensive perimeter has been breached in five locations. The northern (UE 10A) and southwestern (UE 10B) sections of the rampart were partially destroyed during the opening of a firebreak that occasionally serves as mountain path (Activity 301, phase 3). According to historical aerial photography collections, this alteration took place between 1957 and 1983. Three more breaks in the rampart were recorded in the eastern rampart (UE 3, 6 and 8). Once again, they are due to recent activity implying the use of heavy machinery for the terrain clearing and levelling, probably from the 1990s onwards (Activity 302, phase 3).





Figure 5. Stratigraphic Units (UE), man-made features and phases recorded over a UAV-derived orthophoto.





**Figure 6.** Harris matrix of the different stratigraphic units (A) and activities (B) identified.

The presence of a small, rounded structure (UE 14) close to the western rampart cannot be related to the construction and occupation of the camp. Although it is not possible to determine its precise dating or functionality, it rather seems to be a feature that could potentially be linked with shepherding activities in historical times (Activity 201, phase 2) (González Álvarez, Fernández Mier, and López Gómez 2016).

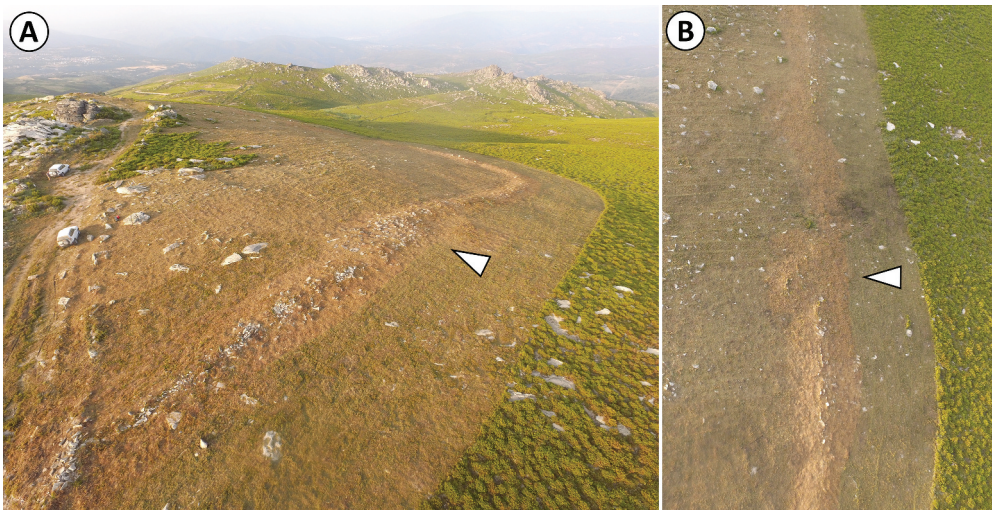
### Archaeological survey

The intra-site artefactual survey produced no significant results. Leaving aside the finding of some recent plastic waste, only a fragment of polished stone is worth mentioning. Its composition and granular nature reflect that it is an exogenous material, probably meant to be used as a sharpener. Given that this type of object is still in use in the Galician countryside, it is not easily possible to suggest a precise date for it.

The metal detecting prospection allowed us to recover 98 metallic items. Sixty-five of them were located on the surface after clearing up the remaining vegetation, while 33 had to be extracted by excavating recovery holes. Most of these objects (92%) are ferrous. Only two of them were made in a copper alloy (2%), one in aluminium (1%) and four using industrial alloys (4%). The degree of conservation of these metal objects also varies depending on the area where they were found (Figure 9a). However, the overall high rate of recovery contrasts with other sites in eastern Galicia, western Asturias or northern Portugal, where only a handful of objects – all of them dating from recent times – were recorded after systematic surveys (Costa-García et al. 2020; Menéndez Granda and



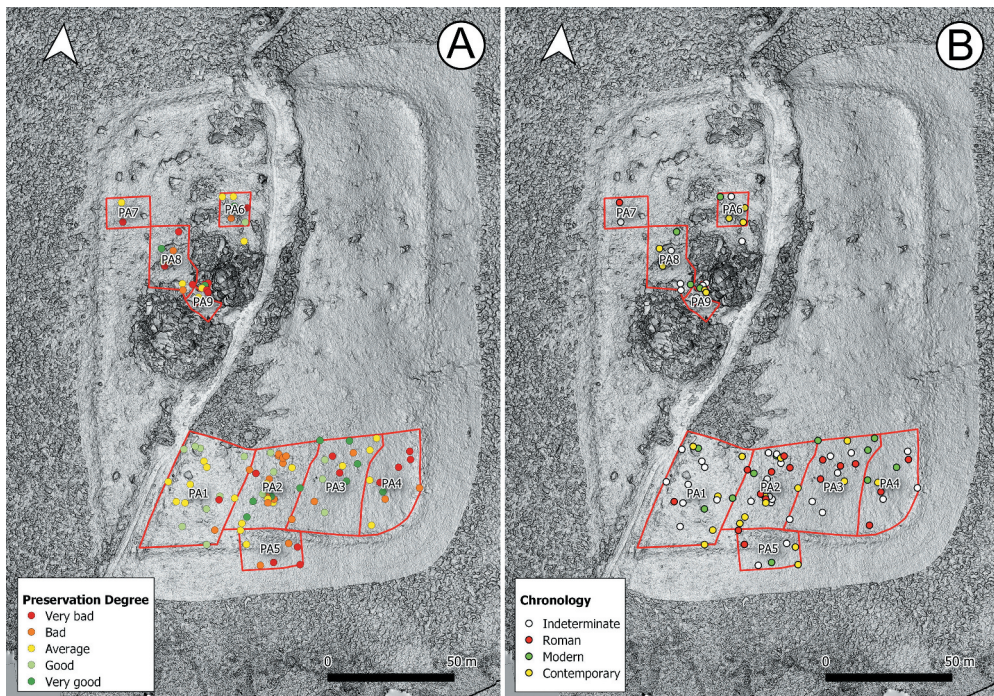
**Figure 7.** Front and rear revetments as seen in the southern (A, UE001) and northern (B, UE012) ramparts; front revetment of the rampart laying over an earthbank (C, UE002); and northern clavicula entrance (D, UE011 and 012).



**Figure 8.** Oblique aerial photographs showing the barbicane entrance (A) and inner clavicula type located in the eastern rampart (B).

Sánchez Hidalgo 2018). The acidic slate, gneiss, schist or granite soils present in these areas are not optimal for the long-term conservation of metal objects, in contrast to what happens in limestone or calcareous regions such as central and eastern Asturias, Cantabria, León or northern Castile (Camino Mayor and Martín Hernández 2015;





**Figure 9.** Material culture recovered during the metal detecting survey. Preservation degree (A) and chronology (B).

Fernández Ibáñez 2006, 2007, 2015; Camino Mayor and Martín Hernández 2015; Martín Hernández and Camino Mayor 2018; Orejas et al. 2015; Peralta Labrador, Hierro Gárate, and Gutiérrez Cuenca 2011).

In general, those items found in the southern sector of O Penedo dos Lobos are better preserved than those located in the northern one. The decomposition of the granite bedrock formed here a sandy soil that enhances the terrain drainage and the conservation of metal objects. In those areas where the mountainous vegetation has protected this deposit, not only it is easier to recover metal objects, but also they are found in better conditions. In other sections, this sandy soil is thinner, and the vegetation does not easily take root. The objects lay open to the atmosphere or were exposed by human activities, which led to them being easily corroded. A similar phenomenon occurred in those spaces close to the western and eastern ramparts, where the defences hinder surface drainage and make the terrain prone to flood.

From a typological point of view, the collection of artefacts is relatively heterogeneous, although it is true that certain types predominate in a particular way. Hobnails represent almost half of the collection (49%), followed by nails (15%), cans (7%), coins (6%) and gun cartridge cases (4%). None of the other types identified exceeds the two items each, but their combined volume sums 15%. Three elements could not be classified due to their fragmentation.

In this paper, a particular focus will be given to those elements that can be dated with certainty in Roman times, which are 19% of the total (Figure 9b). Among them, two Roman *ases* stand out (Figure 10). The first coin (PZ059) is exceptionally well preserved,



**Figure 10.** The two Roman ases of Augustus recovered during the survey: PZ059 (A) and PZ066 (B) after conservation.

and its denomination and attribution is easily recognizable (*RIC* I.20). It shows the bare head of Emperor Augustus facing right and the inscription *CAESAR AVGV TRIB POTEST* clockwise from top right, while *P CARISIVS LEG AVGVSTI* in three lines is easily recognizable on its reverse. The second coin (PZ066) is much more deteriorated, and cannot be precisely identified (*RIC* I.15b, 16 or 17). The bare head of Emperor Augustus faces left, and the partial inscription *CAESAR AVG [ . . ]* is legible. Once again, the back of the coin shows *P CARISIVS LEG AVGVSTI* in three lines. According to classical literary sources (Flor. 2.33.54–58; Cass. Dio 53.25.8; Oros. 6.21.9–10), *Carisius* was one of the most prominent commanders of the Roman armies deployed by Augustus to subdue the last independent tribes of Iberia: the *Astures* and the *Cantabri*. As *legatus* of the *Provincia Hispania Ulterior*, Carisius was probably in charge in the western front during the conflict, and after defeating the *Astures* for the first time, he founded the city of *Emerita Augusta* to settle veterans of the *V Alauda* and *X Gemina* legions. It was there where this coinage was minted between 25 and 22 BC possibly to pay the troops for their services (García-Bellido 2004, 2006; García-Bellido and Blásquez Cerrato 2001).

Other objects could be related to the Roman military occupation of the site. The literature refers to certain hobnails as *clavi caligae* or *clavi caligarii*, since its function would be to stud the soles of the sandals (*caligae*) to facilitate their grip on the ground (Rodríguez Morales et al. 2012; Volken and Volken 2008). Hobnails of this type have been found in late-Republican and early-Roman military contexts (e.g. Bernardini and Vinci 2016; Ciugudean and Timofan 2012; Peralta Labrador 2007; Poux 2008; Zanier 2016), as nailed footwear would be one of the indicative signs of the Roman soldier (Bishop and Coulston 2006, 111–113). However, hobnails have been in use throughout history, so their correct dating is very often uncertain. Depending on their state of preservation and specific features, some hobnails can be clearly identified as Roman (Figure 11). The most characteristic ones have pyramidal heads and quadrangular tangs. Ribbings are often present at the junction between the head and the tang, and some have small ridges on the inside, which are intended to improve adhesion to the soles. It is difficult to draw dating parallels from their ‘decor’ at this point due to their limited number and state of conservation.

A possible peg or stake was also recovered in a very poor state of conservation (Figure 12). This piece of a rectangular section that has a cylindrical perforation on one of its ends while the other would narrow until be finished off in a pointed manner. Items



**Figure 11.** Some hobnails (*clavi caligae*) as they were found in O Penedo dos Lobos (from left to right: PZ033, PZ034, PZ048, PZ050 and PZ057).



**Figure 12.** Possible fragmentary stake or tent peg (PZ097) as it was recovered in O Penedo dos Lobos (top) compared to another similar item found in El Xuegu la Bola (Asturias) (bottom) (Menéndez Blanco et al. 2018), already conserved.

like this one have been recovered in other Roman camps such as El Monte Currieñlos, El Picu Lagüezos or El Xuegu la Bola (Asturias) (Camino Mayor, Estrada García, and Viniegra Pacheco 2001; Martín Hernández and Camino Mayor 2013; Menéndez Blanco et al. 2018) – in the Asturian front –, or La Loma (Palencia) (Peralta Labrador 2007, 508–509) – in the Cantabrian front –. Other similar pieces come from Augustan or Augustan-Tiberian contexts such as those of Haltern and Vetera I–Xanten (Germany) (Hanel 1995, 62; Harnecker 1997, 65–66: 36–37). However, this particular type of peg was already found in late-Republican military contexts, as shown by the items found in the camps of Numancia (Soria) and Cáceres el Viejo (Cáceres) (Bishop and Coulston 2006; Dobson 2014).

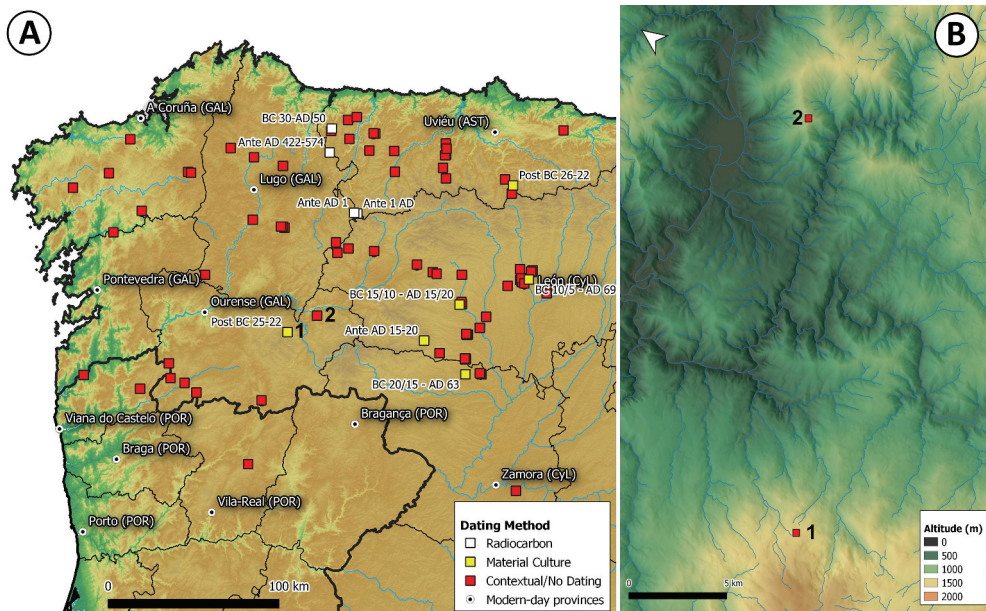


## Discussion

Until very recently, Roman military archaeology in Galicia and northern Portugal was mainly focused on the study of the permanent forts of A Cidadela (Sobrado dos Monxes, A Coruña) (Caamaño Gesto and Fernández Rodríguez 2002; Sánchez-Pardo et al. 2020) and *Aquis Querquernis* (Bande, Ourense) (Rodríguez Colmenero and Ferrer Sierra 2006). However, the construction and military occupation of these sites took place during the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD, long after the Roman conquest of Iberia was over. Over the past few years, remote sensing has supported the development of methodologies for the discovery and recording of several new archaeological sites in these areas (Figure 13a) (Costa-García, Fonte, and Gago 2019). These findings indeed allow us to state that the Roman army was more active in the area than initially assumed.

While the discipline grapples with the growing body of diverse evidence, not much is known in archaeological terms about these sites. Beyond the preliminary analysis and characterization for their cataloguing, very few sites have been systematically surveyed and excavated in these regions (Costa-García et al. 2020; Orejas et al. 2015). There is now a better understanding of the morphology of defences, and the wider disposition of sites, but their chronologies are unclear. Largely, this situation limits the articulation of new historical narratives or the integration of the archaeological data into existing ones. In short, it prevents us from truly understanding the way in which the Roman conquest and occupation was carried out over time.

O Penedo dos Lobos is not only one of the first camps detected in an area – the Galician Massif – where they are not abundant but also the only one here to be dated with some degree of confidence. Naturally, the Roman coinage recovered in the site is just a *post*



**Figure 13.** Roman military sites in Northwest Iberia that have been dated (A). The location of O Penedo dos Lobos (1) and Cabeza do Pau (2) is also indicated. Topographic location (B) of O Penedo dos Lobos camp (1) compared to that of Cabeza do Pau (2).



*quem* element. However, it is important to note that the coins 1) belong to two different series minted in distant *Augusta Emerita* by the commander of the armies deployed against the *Astures*; 2) could have been meant for paying those troops; 3) have been found in a camp located in an upland area supposedly inhabited by *Astures* – even if it belongs to Galicia nowadays – ; 4) and one of them was recovered in an unworn condition. The remaining material culture is consistent with the military occupation of the site, but it does not allow us to improve the dating. Other elements seem to indicate a connection with the Asturian-Cantabrian Wars. The location of the site is very similar to that recorded for other camps in mountainous areas of Asturias and Cantabria (Costa-García 2018a, 2018b; Peralta Labrador, Camino Mayor, and Torres-Martínez 2019). In the same vein, the morphology of the main entrance of the camp evokes other similar solutions seen in some sites in those regions (Costa-García, Fonte, and Gago 2019; Martín Hernández 2015; Vicente García 2020). For all these reasons and considering that the *Astures* rebelled until 22 BC (Cass. Dio 54.5), the decades of 20–10 BC are the most plausible dating for O Penedo dos Lobos. The development of a second phase of the project comprising the excavation and absolute dating of the defences could help us confirm this hypothesis.

Another question remains to be answered: what was the Roman army doing here in the late 1<sup>st</sup> century BC? As stated before, O Penedo dos Lobos was a small, temporary fortification. Considering its size and the fact that several rock outcrops within the camp made parts of the inner site unsuitable for occupation, it may have accommodated 500 to 1,000 men. The paucity of the material record does not allow us to determine what kind of unit(s) built and occupied the camp. It could be infantry, cavalry or a combination of those two. These *vexillationes* – detachments – certainly had a high degree of tactical autonomy and an elevated mobility range, especially when travelling free from *impedimenta* – burdensome equipment – (Caes. *BG* 3.1–2, 5.15, 6.44).

As mentioned before, Roman camps of this size and form have been recorded in other upland areas of Galicia and northern Portugal, revealing perhaps the versatility and adaptability of these units to this type of terrain (Costa-García, Fonte, and Gago 2019, 25–27). These sites were not related with large armies that could face the enemy in a pitched battle, but small units especially suited to control a landscape where the native population predominantly inhabited small, scattered fortified villages – *castros* or hillforts (González Ruibal 2007). 500 to 1,000 men surely could face small rebellious groups, demand submission and tribute from the indigenous communities, or settle territorial disputes (Haynes 2013). In short, they could be felt – and feared – as the armed fist of the Roman state.

Whether O Penedo dos Lobos was a mere marching camp or a temporary operational base is difficult to be sure. This camp is in a good defensible position and controls the mobility across an important section of this upland area. However, we need to take into account the logistic needs of an army on the move when defining temporality (Bishop 1999; Stallibrass and Thomas 2008). The regular supply in this area is challenging since it is devoid of natural resources, and there were no significant human settlements nearby that could help to feed the troops – or to plunder in case of necessity. These reasons point to a brief occupation.

Unfortunately, no other Roman camps have yet been found in the area that could be an indicator of the existence of a military route across the mountains, as evident in other regions of northwestern Iberia (Camino Mayor and Martín Hernández 2015; Martín

Hernández 2015; Menéndez Blanco et al. 2015, 2018, 2020; Vidal Encinas *et al.* 2018). The camp of Cabeza de Pau – c. 7 ha in size – might be just 19 km away in a straight line, but it is located in a different mountain range (Costa-García 2016) (Figure 13b). That does not necessarily imply that O Penedo dos Lobos was an isolated element. However, it makes it more difficult to know the nature of Roman occupation in that area and determine the nature of the mission the Roman army was carrying out here.

Other hypotheses support the idea of a task not directly linked with the process of conquest and occupation but nevertheless discount an active involvement in mineral surveying (*contra* Sánchez-Palencia and Currás 2015); but that seems unsuitable for units of this size. One stimulating thought would be the training of auxiliary troops recruited from local communities (Haynes 2013). The site perfectly simulates the terrain the Roman army expected to find in mountainous areas like Cantabria and Asturias. Many of the troops who fought in the Cantabrian-Asturian Wars and several military units locally recruited immediately afterwards were later deployed in places such as Raetia, Noricum, Germania or Pannonia (Šašel Kos 2011; Strobel 2009). Quite interestingly, among the practice works and camps (Bödecker 2013; Davies and Jones 2006; Jones 2012; Philpott 1998) located in the surroundings of the legionary fortresses of León, Rosinos de Vidriales (León) or Herrera de Pisuerga (Palencia) there are several enclosures similar in size and layout to O Penedo dos Lobos (Costa-García 2016; Martín Hernández et al. 2020; Menéndez Blanco et al. 2020; Morillo et al. 2021).

## Conclusion

The survey of 2018 allowed us to improve the archaeological recording of O Penedo dos Lobos enclosure, as well as confirm its initial characterization as a temporary Roman camp. The photogrammetric mapping and detailed recording of archaeological features have supported a more precise morphological analysis of the enclosure. From a Heritage perspective, these actions also supported a better assessment of its current state of preservation, allowing us to identify those agents that may affect its future conservation. The material culture recovered has been essential in defining the chronology of the site. Besides, these activities allowed a better understanding of both the soil composition and the stratification processes that took place after the Roman military site was abandoned. Over the past few years, the aggressive ploughing using heavy machinery has replaced the more traditional uses of these upland areas (Corbelle Rico and Crecente Maseda 2008). The removal of the shallow soil deposits located over the bedrock has had dramatic effects on the preservation of the archaeological layers and items.

The archaeological information gathered during this campaign contributes significantly to improving our knowledge about the early Roman military presence in the northwesternmost areas of the Iberian Peninsula. As stated before, O Penedo dos Lobos is one of the few Roman military sites that can be dated with a high degree of confidence and therefore related to a known historical episode: the Cantabrian-Asturian Wars in Augustan times (29–19 BC). So far, only a handful of military installations in the modern-day border between Galicia and Asturias can be proposed to relate to these campaigns or postwar scenarios, after the radiocarbon dating of their defensive systems between the mid-1<sup>st</sup> c. BC and mid-1<sup>st</sup> c. AD (Menéndez Granda and Sánchez Hidalgo 2018; Orejas et al. 2015), and not far away from other temporary camps in the mountain ranges of Asturias.

Nevertheless, O Penedo dos Lobos is in a more southerly location. It might be a military camp built during or immediately after the actions against the *Astures* (25–22 BC), allowing the formulation of new historical narratives in an area where the Roman military presence was previously unknown. Ultimately, it contributes to the integration of this area into wider European debates on Roman expansion and imperialism.

The developed methodology has proven to be sound. The authors now intend to advance with the study of O Penedo dos Lobos Roman camp by completing the metal detecting survey of the site, as well as the excavation and absolute dating of its defences using different methods. These actions will allow us to document in more detail the stratigraphic contexts, understand how the defensive circuit was constructed, and to know with greater precision the moment of foundation, occupation and abandonment of the site as done elsewhere (e.g. Lendřáková et al. 2020; Lisá et al. 2015; Komoróczy et al. 2019).

## Notes

1. *Dirección Xeral de Patrimonio Cultural, Consellería de Cultura e Turismo, Xunta de Galicia.*
2. *Inventario de Bens Arqueolóxicos GA-32044014.*
3. A DJI Phantom 3 Professional equipped with a 4 K digital camera with 12 megapixels was used; the flight was planned with DroneDeploy (<https://www.dronedeploy.com/>); and we used Agisoft Metashape Professional, version 1.6.3 build 10,71,164 bit (<https://www.agisoft.com/>) for the photogrammetric processing. The December 2017 UAV flight performed before vegetation clearing followed a similar procedure: 245 photos were taken at a uniform altitude of 70 m, and a DSM with a resolution of 14 cm/pixel and an orthophoto with a resolution of 7 cm/pixel were obtained.
4. Yolanda Porto, from Fráxil (<https://www.fraxil.es/>), was in charge of this process.

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## Notes on contributors

**João Fonte**, Department of Archaeology, University of Exeter, Laver Building, North Park Road, EX4 4QE, Exeter, UK; [j.fonte3@exeter.ac.uk](mailto:j.fonte3@exeter.ac.uk)

BA in Archaeology at the University of Minho, MSc in Geographic Information Systems at University of Porto and PhD in Archaeology at the University of Santiago de Compostela. My postdoctoral research focuses mainly on the interaction between Roman military and Iron Age Archaeologies and methodologically on remote sensing and GIS. I have conducted fieldwork in different archaeological sites in Portugal, Spain, UK and Romania. I am a member of the Department of Archaeology, University of Exeter, the Institute of Heritage Sciences, Spanish National Research Council and the [romanarmy.eu](http://romanarmy.eu) collective.

**José Manuel Costa-García**, Departamento de Prehistoria, Historia Antigua y Arqueología, Universidad de Salamanca, Spain; [jm.costagarcia@usal.es](mailto:jm.costagarcia@usal.es) / Departamento de Historia, Universidade de Santiago de Compostela, Spain; [josemanuel.costa@usc.es](mailto:josemanuel.costa@usc.es)

BA in History (2006, Extraordinary Award) and PhD in Archaeology (2013) at the University of Santiago de Compostela. My research focuses on three main thematic lines: Roman military archaeology in Europe; the changing landscapes of northwestern Iberia between Late Iron Age and early Roman times; and Conflict Archaeology from a long-term perspective. I follow the principles of Landscape Archaeology, making extensive use of remote sensing techniques (aerial and satellite photography, LiDAR, UAV-derived photogrammetry, geophysics, metal detection) and Geographic Information Systems (GIS) for the gathering, management and combined analysis of the archaeological data. My research has supported the discovery of several new archaeological sites in Northern Iberia and the articulation of new narratives on the Roman conquest and transformation of these territories.

I am a founding member of the research collective Romanarmy (<http://romanarmy.eu>) and previously was part of the USC research team at the Roman fort of A Cidadela (Sobrado dos Monxes, A Coruña) (2008-2016). In recent times, I coordinated or was an active member of the archaeological teams that surveyed and excavated Roman military sites such as A Penaparda, Penedo dos Lobos (Galicia), Cueiru, El Xuegu la Bola (Asturias), Sasamón (Castilla y León), Alto da Pedrada or Lomba do Mouro (Northern Portugal).

**Manuel Gago**, Departamento de CC. da Comunicación, Universidade de Santiago de Compostela, Spain; [manuel.gago.marino@usc.es](mailto:manuel.gago.marino@usc.es)

Director of [culturagalega.gal](http://culturagalega.gal), the cultural online platform of the Consello da Cultura Galega and Associated Professor at the University of Santiago de Compostela. BA in Journalism and PhD in Sciences of Communication at the University of Santiago de Compostela. My professional work at Consello da Cultura Galega is focused on cultural journalism and the development of cultural and scientific dissemination projects, especially from the perspective of digital media. My research activity is, precisely, oriented towards developing prototypes and communication models that improve the reception of science, and the development of new collaborative models between society and researchers. I am a member of the New Media research group at the Universidade de Santiago de Compostela and the [romanarmy.eu](http://romanarmy.eu) collective.

## ORCID

João Fonte  <http://orcid.org/0000-0003-0367-0598>

Jose Manuel Costa-García  <http://orcid.org/0000-0002-0819-1361>

Manuel Gago  <http://orcid.org/0000-0002-5902-6569>

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