

# Investigations at an Early Roman *vicus* in Moesia Inferior – the tale of the Beidaud site (Tulcea County, Romania)

Adrian Şerbănescu<sup>1,2\*</sup>, Valentin Bottez<sup>1</sup>, Cristian Roth<sup>2</sup>

1 Faculty of History, University of Bucharest, Bucharest, Romania

2 ArchaeoSciences Division, Research Institute of the University of Bucharest, Bucharest, Romania

\* Corresponding author: E-mail: [adrian.serbanescu@icub.unibuc.ro](mailto:adrian.serbanescu@icub.unibuc.ro)

## Abstract

We did geophysical investigations in a provincial *vicus* in Moesia Inferior, Romania. Magnetics and GPR surveys were combined to detect the rural archaeology. With these methods, we could map the internal layout and buildings in a rural Roman settlement.

## Keywords

geomagnetic prospection; landscape archaeology; Roman provinces; rural archaeology; settlement layout

## Introduction

Modern province of Dobruja (South-East Romania today) is a region with rich historical background that starts in Neolithic and flourishes during the Greek and Roman periods. The catalyst behind this is the foundation of three Greek colonies during the 7<sup>th</sup>-6<sup>th</sup> century B.C. – Histria, Kallatis and Tomis, and more followed (Suceveanu and Barnea 1991). While research at these main urban sites has been going on for a century now, the study of the rural areas around them is just getting started.

This study focuses on the Early Roman *vicus* near Beidaud (Tulcea County, Romania), a settlement that appears with the changes that happen in the 2<sup>nd</sup> Century B.C. when, in the old hinterland around Histria, named *chora*, a new administrative unit appears - *regio Histriae* (Matei-Popescu 2013).

While the Roman influence in ancient Dobruja starts in the 1<sup>st</sup> century BC, the official annexation date is generally accepted as 69 A.D. (with the beginning of the Flavian dynasty), Vespasian making changes in the territorial layout of the provinces around the Balkans and Dobruja is included in Moesia Inferior. The first and main information about the *regio Histriae* is a document called `Horothesy of 25<sup>th</sup> of October 100`, when the governor Manius Laberi-

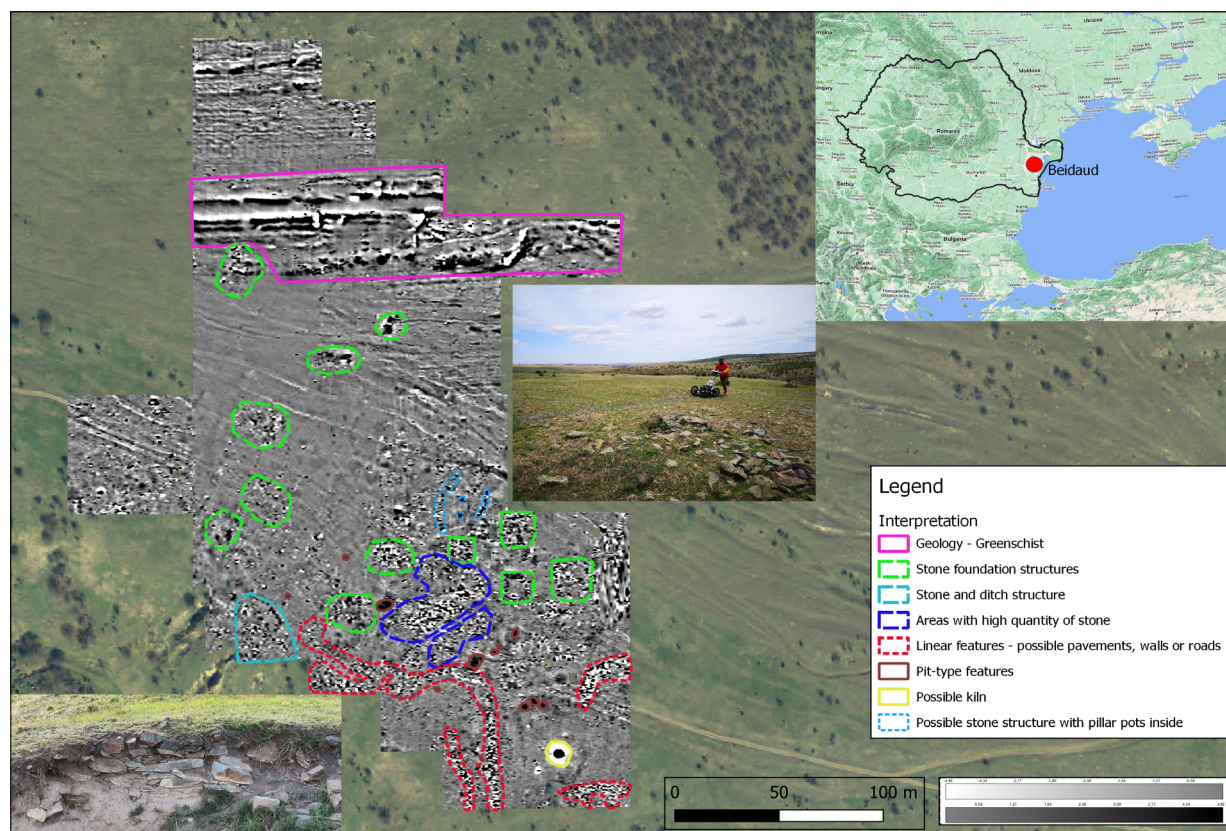
us Maximus delimits the territory of the said *regio* by the courses of five rivers which today are yet to be identified (Olteanu and Amon 2008).

## Methodology

Situated on the greenschists of the Casimcea Plateau, roughly 27 km in straight line from Histria, the site is West of the Archaic fortress near Beidaud modern village and West of the necropolis most likely associated with the *vicus*.

A total area of 6.25 hectares of magnetometry was covered using a Bartington Grad601-2 dual sensor with a resolution of 0.25x1 m during a campaign in April 2022 and Sensys Magneto DLM 98 cart with three sensors was used during the June 2022 campaign (Fig. 1).

A large number of anomalies related to stone dismantled from foundations of buildings were identified on the magnetic map and three complexes were chosen for further investigations using high resolution magnetometry and GPR (Fig. 2, result) – A Mala ProEx with a 500 MHz antenna was used.



**Fig. 1:** The site of Beidaud (Map in top right corner: Google, Map data ©2023). Geomagnetic results and interpretation (base map: Bing maps - © 2023 Microsoft).

## Results

In the magnetic map covering a large area of the settlement were located a number of interesting structures (Fig. 1, interpretation). The majority of anomalies were related to stone structures. They are either remains of buildings, or linear anomalies related to pathways or paved areas. On the northern part of the map, the bedrock formed by greenschist alignments can be clearly seen as positive magnetic anomalies. Other possible types of structures have been identified including a round anomaly with strong positive/negative contrast and a radius of approximately 5 m. During the September 2022 excavation campaign a quarter of this anomaly was opened (the south-west part) with partial results pending and work there will be continued during the next campaign in 2023.

The three areas investigated using high resolution magnetometry (0.05x0.25 m) showed more detail of the structures and only in area 3 wall alignments were visible. GPR investigations with similar resolution were done over areas 1 and 3 and proved to be crucial to the investigation.

## Discussion

While the survey covered roughly 6.25 ha, only the western limit has been found. To the North, the site might continue over the bedrock alignments, and the Eastern and Southern edges have yet to be determined. To the South there is a valley similar to small canyon and the remains of structures continue down the slope, so identifying it will prove to be challenging in areas where the slope becomes very steep.

It can be also determined that most buildings have stone foundation and most likely, as in other settlements in the region, the walls were made of wattle and daub or similar clay technology (Baumann 1983). Investigations using GPR in areas 1 and 3 showed great results.

In Area 1 the complete layout of a typical Roman building (Băltăc 2010) can be seen in the -slices starting at -0.35 m up to -0.75 m (Fig. 2). A rectangular house with rooms on the sides and an interior courtyard can be observed, similar to other buildings excavated in the region (Baumann 1995).

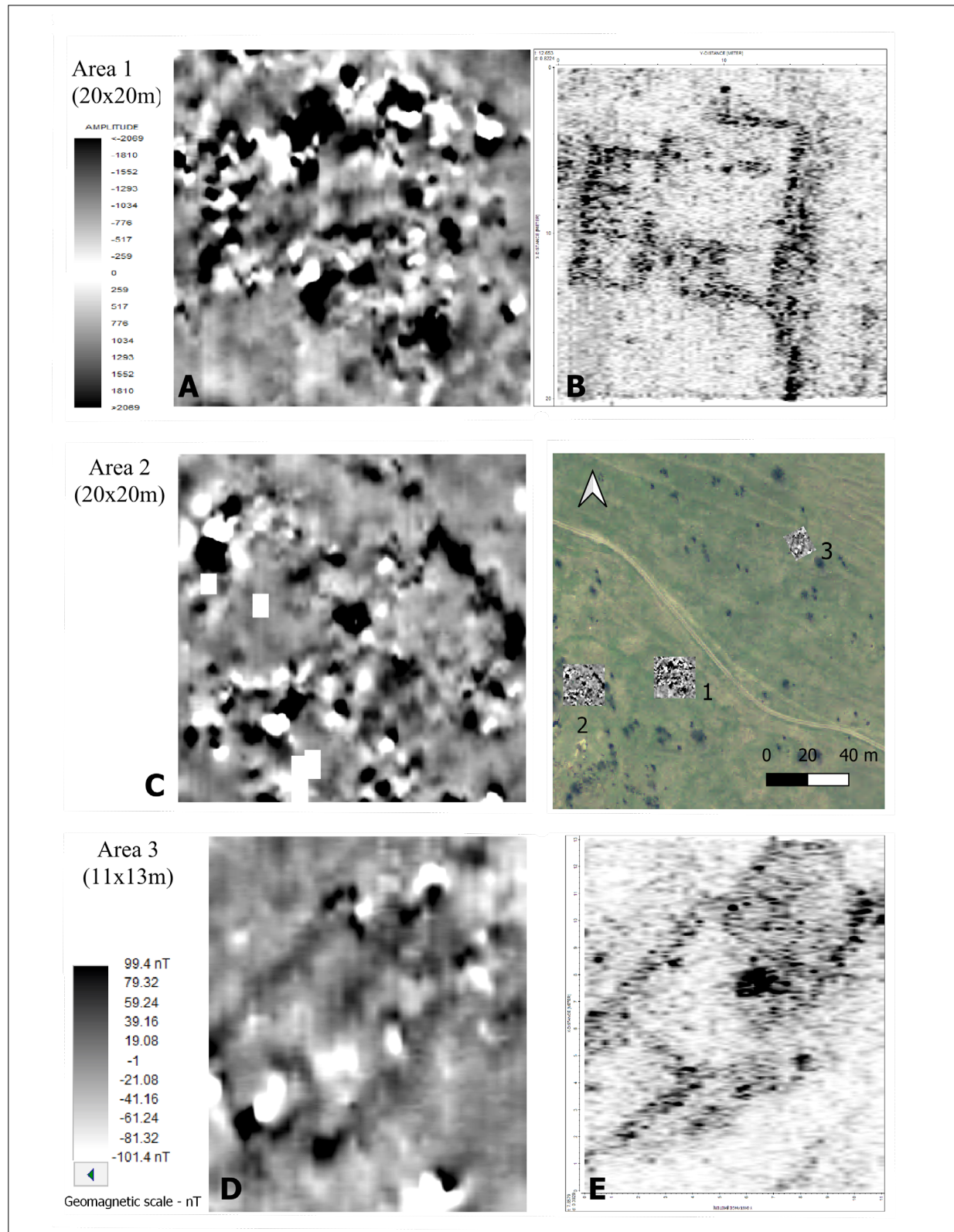



Fig. 2: High resolution areas 1, 2 and 3 and their position. Area 1 - A- geomagnetic results, B- GPR slice at - 0.80m; Area 2 - C- geomagnetic results; Area 3 - D - geomagnetic results, E- GPR slice at - 0.40m (base map: Bing maps - © 2023 Microsoft).

In Area 3, the layout of part of a building can be seen, oriented NE-SW, and this is probably part of a larger structure that can be seen in the magnetic map. In the middle of the structure a large anomaly can be related possibly to a fire installation, maybe a hypocaust.

What can be inferred from both GPR datasets is that both buildings have a layer of approximately 10-15 cm of rubble from -0.15 m to -0.30 m under which, the remains of the walls and other components of the buildings can be seen up to circa -0.95-1 m in the ground.

## Conclusion

Investigations carried out so far at Beidaud *vicus* yielded remarkable results and show that further investigations are required to fully understand the context of this settlement in terms of its size, functions, internal layout etc. It is important to mention that the area where the site is situated is pasture and has been utilized this way for long time. There is no evidence of intense agricultural activity (ploughing especially) and the fact that intact walls can be seen in the GPR time-slices supports this hypothesis and is probably the main reason for the good conservation state of the structures.

Once the geophysical investigations will be completed, as we aim at fully delimiting the site using magnetometry and investigate more structures with GPR, we will have the first complete geophysical investigation of an Early Roman *vicus* in Roman Dobruja. 

## References

- Băltăc A. Types of habitation in the Roman province Moesia Inferior. In: Angelescu MV, Achim I, Băltăc A, Rusu-Bolindeț V, Bottez V, editors. *Antiquitas Istro-Pontica: mélanges d'archéologie et d'histoire ancienne offerts à Alexandru Suceveanu*. Cluj-Napoca: Mega; 2010. p. 437-444.
- Baumann VH. *Ferma Romană din Dobrogea. Tulcea: Muzeul Deltei Dunării Tulcea*. 1983. Romanian.
- Baumann VH. *Așezări rurale antice în zona gurilor Dunării. Tulcea: ICEM*. 1995. *Așezări rurale antice în zona gurilor Dun*.
- Matei-Popescu F. Statutul juridic și teritoriul Histriei în epoca romană. In: Bîrzescu I, Panait Bîrzescu F, Matei-Popescu F, Robu A, editors. *Poleis în Marea Neagră: Relații interpontice și producții locale*. București: Humanitas; 2013. p. 203-233. Romanian.
- Olteanu F, Amon L. Horothesisia Histriei, un „dosar” istoric. *Revistele Stiinței*. 2008; 168:168-174. Romanian.
- Suceveanu A., Barnea A. *La Dobroudja Romaine*. București: Editura Enciclopedică. 1991. Romanian.

## Open Access

This paper is published under the Creative Commons Attribution 4.0 International license (<https://creativecommons.org/licenses/by/4.0/deed.en>). Please note that individual, appropriately marked parts of the paper may be excluded from the license mentioned or may be subject to other copyright conditions. If such third party material is not under the Creative Commons license, any copying, editing or public reproduction is only permitted with the prior consent of the respective copyright owner or on the basis of relevant legal authorization regulations.