

# Falerii Novi 2023: Methods of Excavation & Analysis

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## Introduction

Located in the middle Tiber Valley, Falerii Novi presents an opportunity to study ancient urban life and climate through stratigraphy. Founded in 241 B.C, the urban centre of Falerii Novi emerged as the designated domicile for the Faliscans of Falerii Veteres subsequent to their relocation prompted by an unsuccessful rebellion.

Despite this, the location of the site is highly advantageous due to its proximity to Rome (50 kilometres), the Tiber River, and its placement on the *Via Amerina*; all major points of trade. This provides a unique opportunity to study Falerii Novi's economic relationship to ancient Italy's financial epicentre Rome, and its surrounding *municipia*.

Additionally, the large size of Falerii Novi (measuring at 31.86 hectares) presents an opportunity to collect soil samples for analysis. Soil samples are capable of providing insight into the paleoclimate and landscape of Falerii Novi, and therefore of the surrounding areas.

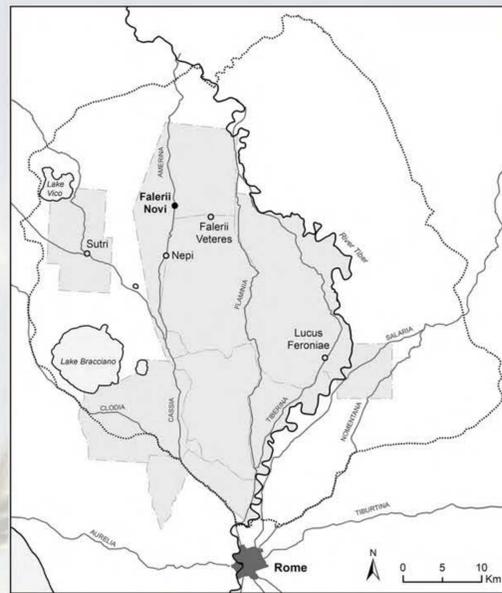


Fig. 1: Map of Ancient Central Italy, with Falerii Novi in relation to major points of trade within Ancient Central Italy. Image retrieved from *The Falerii Novi Project*, Cambridge University Press, 21 July 2023; <https://www.cambridge.org/core/journals/papers-of-the-british-school-at-rome/article/falerii-novi-project/A053>



Fig. 2: Image of the Falerii Novi Project 2023 team. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

## Previous Work At Falerii Novi

**2017- 2020:** Ghent University conducted surveys and ground-penetrating radar (GPR) of Falerii Novi. The surveys documented the site's spatial organisation, while GPR unveiled sewage systems and architectural elements beneath the *decumanus maximus*, the primary east-west road.

These findings allowed for a detailed reconstruction of the town's layout, street network, and the distribution of buildings.

**2021:** A series of test pits measuring 50 x 50 x 30 cm were excavated by FNP to examine the material composition and its spatial distribution. Additionally, Ghent University conducted paleoenvironmental analyses and coring that provided a complete occupational stratigraphy. This approach facilitated the reconstruction of an estimated chronological record of inhabitants, spanning from the Pre-Roman era to the Late Medieval period.

**2022:** The 2022 season marked the inaugural official excavation campaign of the Falerii Novi Project. Three distinct areas were excavated: the macellum, a domus south of the forum, and an insula-intersection along the *Via Amerina*. Material excavated confirmed a wide range of occupations. Further coring and geophysical survey was conducted.



Fig. 3: Image of FNP 2023 team completing various types of lab work. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

1: Verdonck, L., A. Lanaro, F. Vermeulen & M. Millett. 2020. "Ground-penetrating radar survey of Falerii novi; a new approach to the study of Roman cities." *Antiquity* 94: 705-23.  
2 & 3: Bernardi, S., M. Andrews, L. Ceccarelli, E. Dodd, S. Kay, N. Leone & F. Vermeulen. 2022. "The Falerii Novi Project: the 2021 season." *Papers of the British School at Rome* 90: 341-45.

## Area 2- The Domus

Opened in May 2023, Area 2 measured 8 metres by 8 metres and was suspected to contain a walled structure (i.e. domus) due to previous geophysical surveys by Ghent University. The two main focuses of excavation of Area 2, was to 1. uncover, and document the walled structure, and 2. Collect soil samples for flotation.



Fig. 4: Image of Area 2 after the first week of excavation. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

## Methods of Excavation & Documentation

The Domus, or Area 2, was excavated according to open context stratigraphic principles, and by stratigraphic units (SUs). SUs are the result of both human interaction (e.g. middens), and natural processes (e.g. erosion).

Each SU represents individual contexts, which can be defined by these criteria: colour, composition, compaction, and consistency. Both the removal and the adding context (negative and positive interactions on the stratigraphic record) are considered SUs. Therefore, layers, pits, cuts, dumps, and structural features are all considered to be SUs, and are recorded accordingly.

Establishing the relationships between SUs is crucial for the stratigraphic sequence, and any interpretation of the site. The software *Airtable* was used for documentation, and the method was as described in Fig. 5.

### Documentation Method

1. Define context
2. Record dimensions of SU, as well as opening elevation levels using GPS
3. Photograph context with the following: scale, labels, and date
4. Map out plan of the context using a scaled orthophoto or manually using permatrace paper
5. Excavate the area, reserving 40 litres of soil for flotation
6. Take elevation levels of the context at closing, as well as levels of any small finds
7. Make section draws if needed
8. Document the following on *Airtable*
  - Description of the SU (compaction, colour, etc)
  - Components (geological, organic, and artificial)
  - Conservation
  - Stratigraphic relationships and stratigraphic reliability
  - Any datable features
  - Interpretation of SU
  - Distinguishing characteristics (e.g. location, compositions)
  - Any relevant observations

Fig. 5: Image of the documentation method used at FNP in the 2023 season. Image retrieved from Cecilia Crasto 2023.

## Results of Excavation



Fig. 6: Image of Area 2 at the end of the season. Image shows excavated rooms R1, R2, R3, and R4 as indicated, as well as a marble pillar repurposed (RAF). Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

Excavation of Area 2 revealed a walled structure consisting of at least four distinct rooms (seen in Fig. as R1, R2, R3, and R4), and unique finds; including ceramics, metal, organic material, and small finds.

The stratigraphy of Area 2 saw sloping SUs varying in density of cultural and biological components. The layers intersected a high volume of in situ rubble (collapse layers), as well as an ash layer, providing possible insight into the abandonment of the structure.

Several architectural elements were also present, including tufo walls, blocks, three floor types, floor preparation, roof tiles, roof beams, a corridor, as well as repurposed structural elements (eg. marble pillar, RAF in Fig. 6 & 7), all varying in preservation levels

Multiple layers of floor preparation were uncovered in the trench. The preparation consisted of crushed material (ceramic, marble seen as FPL in Fig. 7, etc) and was used for three finishes: mosaic, cocciopesto, and opus sectile (seen in Fig. 8).

Fig. 8: Image of the south-east corner side of Area 2, where an opus sectile floor was uncovered. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

Common geological components within Area 2 were red tufo (tuff) and peperino.

Common biological components found were bones, charcoal, seeds, and roots.

Common artificial components found were ceramic, tessera, glass, metal, and worked marble.

## Soil Collection & Analysis: Flotation

**Flotation** is a method of soil analysis wherein soil samples are subjected to wet-sieving. This method facilitates the recovery of minute materials, typically of biological origin, due to the small mesh size used. Furthermore, flotation allows for carbonised material to float to the surface for collection.

Flotation is capable of providing evidence of various botanical species, which in turn, provides insight into the paleoclimate and landscape of Falerii Novi; past native species, non-invasive species, and past climate. Seeds in particular, are excellent climate indicators. At Falerii Novi, paleoclimate studies involve the grass weed seed.

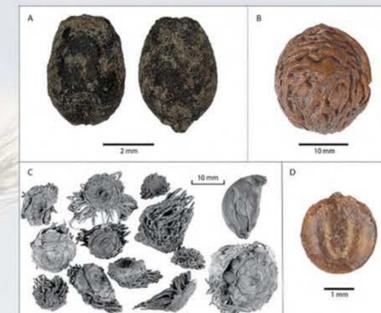


Fig. 10: Image showcases various seed types found within the Mediterranean and their various preservation methods; carbonization, desiccation, mineralization, and waterlogging. Image retrieved from Lisa Ludwick and Erica Rowan, *Archaeobotanical Research in Classical Archaeology*, *American Journal of Archaeology*, 2022.

## Methods: Flotation

1. 40 litres of soil (approximately 4 buckets) were collected from each context for flotation.
2. Samples were sieved, 2 litres at a time with 2 mm residue mesh in the large water vat with a 0.05 mm mesh. The 0.5 mesh prevents small residue from sinking.
3. Light biological material (e.g charcoal) floats to the surface of the water, and then is strained out into two additional 1 mm sieves.
4. The remaining material from the soil sample, or heavy-residue, is dried and then sifted by hand with tweezers to recover bone, seeds, pottery, charcoal, and glass.

The floated material, caught in the 1 mm residue mesh, is dried separately and stored for microscopic analysis.



Fig. 13: Image depicts two students sorting through the heavy-residue with tweezers, and organising the finds. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

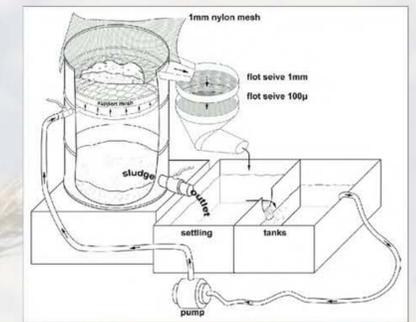


Fig. 9: Image is a diagram of a flotation station. Image retrieved from Sanders et al. *Corinth Excavations Archaeological Manual*, 2017.



Fig. 11: Image depicts the flotation setup at Falerii Novi during the 2023 season. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)



Fig. 12: Image depicts the main vat in the flotation set up, fitted with a 0.5 mm mesh. Image retrieved from the British School of Rome's twitter account: [https://twitter.com/the\\_bsr/lang-en](https://twitter.com/the_bsr/lang-en)

## Flotation Results

Flotation and subsequent residue sorting produced a large amount of bone, pottery, and charcoal samples. A minimal amount of botanics (e.g., grass weed seeds) were collected, but those that were will be further studied.

This botanical analysis holds the potential to unveil intriguing insights into past agricultural practices and environmental conditions.



Fig. 14: Image depicts a small plastic tray with various finds from the heavy-residue. Image retrieved from Cecilia Crasto, 2023.