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## Urban Voids in Gabii? Results of a Pilot GPR Survey

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Arx

# Lapis Gabinus quarries

2022 GPR

## ABSTRACT

### Urban Voids in Gabii?

#### Results of a Pilot GPR Survey

Chiara Andreotti – Rocco Bochicchio – Felix Henke – Julian Schreyer

In 2022, a small-scale GPR survey was conducted in the Gabii urban area in order to test the practicability of GPR at Gabii and to flesh out the previously discovered street system with buildings. 4200 m<sup>2</sup> were therefore prospected east of the main road fork. Apart from a likely post-antique system of north-south running structures, the survey yielded a mostly negative result: in surprisingly close vicinity to the city centre a street grid had been laid out, but apparently no (substantial) buildings were ever constructed along these streets. Should this result be confirmed by further research, this part of Gabii seems to have been even more thinly settled than suggested by recent excavations. The frequent 1<sup>st</sup> century B.C. allusions to settlement decline could in this case largely be attributed to the misguided idea that the fame of ancient Gabii must have been reflected in the physical extension of the urban centre.

## KEYWORDS

Gabii, georadar, urbanisation, deurbanisation, urban wasteland

Via Prenestina Nuova

# Urban Voids in Gabii?

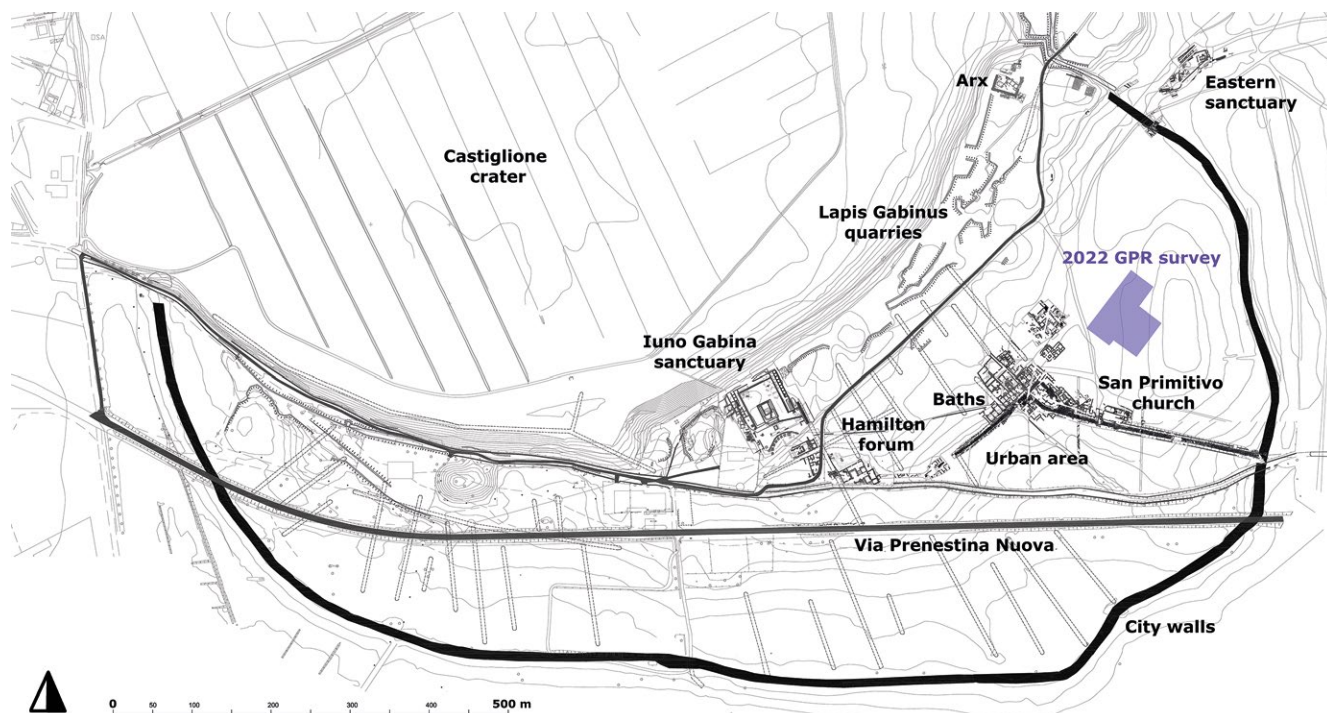
## Results of a Pilot GPR Survey

### The Gabii Archaeological Area

<sup>1</sup> The ancient Latin city of Gabii was located about 20 km from Rome, along the ancient via Praenestina, on the southern edge of the Castiglione crater, which was originally filled by a lake that was drained at the end of the 19<sup>th</sup> century. Gabii was one of the great centres of *Latium vetus* at the time of the birth of Rome and, together with Tibur and Praeneste, was one of the cities that controlled the lower Aniene valley as well as access to the Sacco and Liri valleys. Today, Gabii is also one of the most significant archaeological sites in the territory of the municipality of Rome. Between 1986 and 1991, a large portion of this area, including part of the ancient urban centre – about 70 hectares – was acquired by the Italian state and assigned to the Soprintendenza Speciale Archeologia, Belle Arti e Paesaggio di Roma (SSABAP Roma) to create a suburban archaeological park. Due to its characteristics, Gabii today represents an extraordinary research context. Excavations carried out in the past have shown that the main structures of the ancient city are still largely preserved underground. After the site was abandoned between 11<sup>th</sup> and 12<sup>th</sup> century, the area – used only for agricultural purposes – was no longer disturbed by later activities, which in other zones of Rome have erased traces of past occupation. Therefore, the planning of new excavations allows the acquisition of new information on the urban history during the Roman period, which may even contribute to enhancing our knowledge of the settlement history of Rome itself.

<sup>2</sup> The Italian Ministry of Culture used all of the available resources to acquire a large portion of the exceptional ancient site, thus protecting it from the suburban sprawling of Rome that was already having a heavy impact on neighbouring areas (a famous case is that of Osteria dell'Osa, where a portion of a necropolis linked to Gabii was fortunately investigated before being destroyed). After delimiting the archaeological site, the SSABAP Roma aimed to preserve the standing archaeological remains while at the same time tried to progressively resume the archaeological investigations in old and new areas, following the antiquarian, unsystematic excavations that began at the end of the 18<sup>th</sup> century. Thanks to the long-term research vision of the late Stefano Musco, archaeological supervisor at the SSABAP Roma and director of the Gabii





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Fig. 1: Gabii, Archaeological Area and its surroundings with indication of the investigation area

archaeological area up to his passing in 2019, and in synergy with the activities carried out by the state archaeological service and under various forms of partnership, the SSABAP Roma opened up the site to Italian and foreign research institutions, whose work has shed new light on Gabii's history and urban structure. In 2006, collaborations with the Università degli Studi di Roma Tor Vergata, the Scuola di Specializzazione in Beni Archeologici di Matera, the Rheinische Friedrich-Wilhelms-Universität Bonn, the University of Michigan – Kelsey Museum of Archaeology, and the Musée du Louvre were thus launched to investigate crucial areas for understanding the habitation phases at Gabii: the so-called *arx*, the sanctuary of Iuno Gabina, the Eastern Sanctuary, the urban area and the fortification circuit (Fig. 1).<sup>1</sup>

<sup>3</sup> This approach is now continued with the new collaboration between SSABAP Roma and Institut für Klassische Archäologie of Friedrich-Alexander-Universität Erlangen-Nürnberg (aut. SSABAP Roma n. 15001/4.4.2022), whose preliminary results will be the subject of this paper.

C. A. – R. B.

## The GPR Pilot Campaign

<sup>4</sup> The regular street system discovered with the help of magnetometric prospection in 2007–2008, which was laid out in Gabii between the end of the 5<sup>th</sup> and the beginning of the 4<sup>th</sup> century B.C., is very significant for our understanding of early Italian urbanism.<sup>2</sup> Excavations along the system's main axis have provided valuable information on the development and maintenance of the streets as well as the use and organisation of the spaces thus created.<sup>3</sup> However, while the excavations in the centre

<sup>1</sup> Andreotti – Bochicchio 2022.

<sup>2</sup> Becker et al. 2009.

<sup>3</sup> For a summary of recent research at Gabii, see Samuels et al. 2021 and Zapelloni Pavia et al. 2022. Now Gabii Archaeological Area is passing with new Institute Musei e Parchi Archeologici di Praeneste e Gabii, under the direction of Dr. Martina Almonte.



2

provide detailed information on centuries of city life, they are limited to a small part of Gabii. Therefore, although the street system is extensively known from magnetometric surveys, our knowledge of Gabii's general layout beyond the streets themselves is still very limited – the position of a forum being just one of the open questions. Ground penetrating radar surveying (GPR) seems to be the tool to address these questions most efficiently, as it allows to map underground structures at a much higher resolution than the surveying methods used so far at Gabii.

5 The aim of the pilot campaign conducted in 2022 was to test the methodological practicability of GPR surveying in a built-up ancient urban area of Gabii.<sup>4</sup> For this purpose, we surveyed an area of 4200 m<sup>2</sup>, located in the eastern part of the ancient fortified city, where the road coming from Rome splits up into a south-eastern branch, excavated over a longer distance and leading to Praeneste, and a north-eastern branch to Tibur (Fig. 1). The studied area lies between these two branches and is aligned with the north-eastern branch to Tibur (Fig. 2). So far, only the results of magnetometric surveys were available for this very flat, grassy area.<sup>5</sup> We surveyed the area in question in northwest-south-east and southwest-northeast direction along transects that were separated 0.50 m apart (Fig. 3). The westernmost grid measuring 30 m × 35 m was additionally surveyed with a reduced transect spacing of only 0.25 m in northwest-southeast direction (Fig. 4. 5. 6).

6 As a first result of our GPR pilot campaign, it can be stated that under the particular ground and conservation properties in the archaeological area of Gabii, the

Fig. 2: Gabii, the area surveyed by GPR in 2022

4 Duration: 7 to 10 June 2022. Participants: Andreas Grüner, Felix Henke, Carsten Mischka, Doris Mischka, Julian Schreyer, Markus Trodler. Methodology: GSSI UtilityScan (350MHz antenna), Emlid Reach RS+ DGPS system. We would like to sincerely thank SSABAP Roma and its staff for their active support. The success of the entire prospection process is largely due to the invaluable competence of Carsten Mischka and Markus Trodler, while any errors in the interpretation of the data presented below are of course ours.

5 Becker et al. 2009; Kay 2013; Helas 2010.





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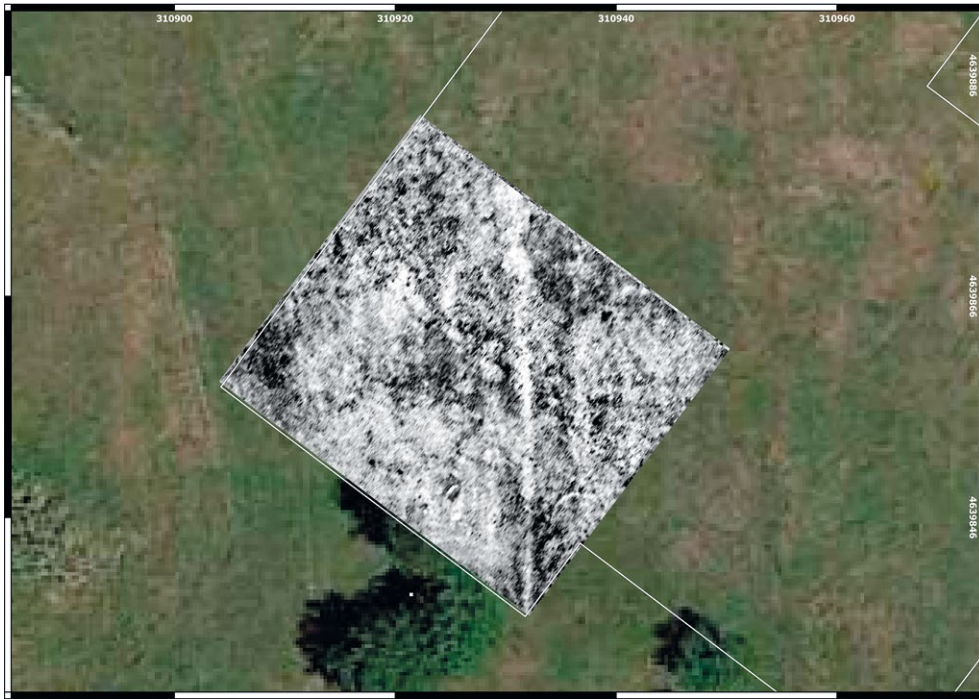


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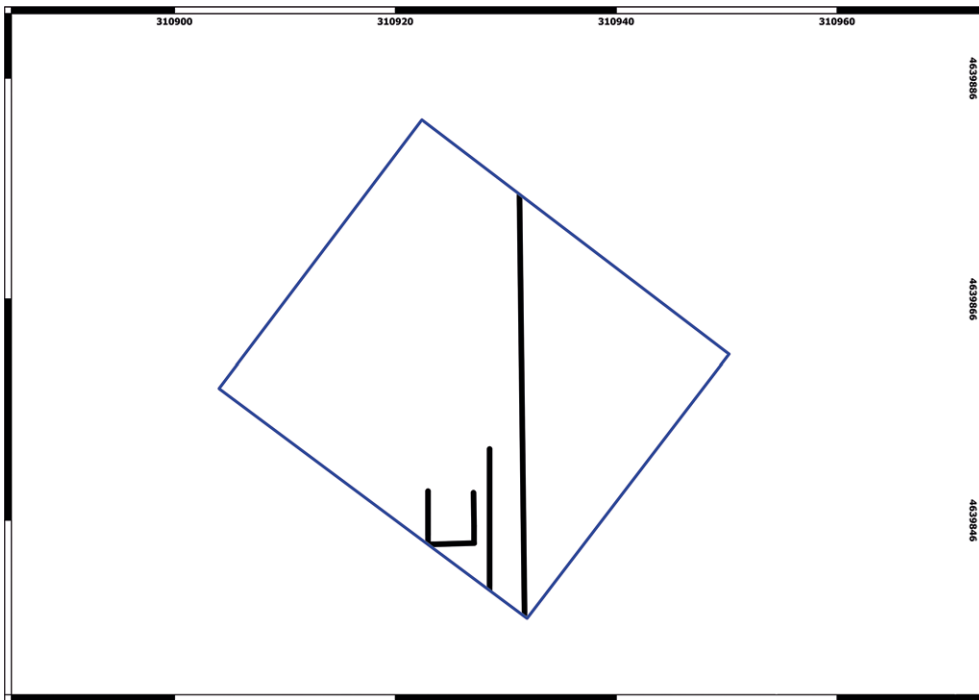
Fig. 3: Gabii, survey area, 0.60 m depth slice map with a transect spacing of 0.50 m; westernmost grid marked

Fig. 4: Gabii, westernmost grid, 0.60 m depth slice map with a transect spacing of 0.25 m

increased effort of a relatively closely meshed transect spacing of 0.25 m is indeed necessary: apart from several prominent lines running north-south (to be discussed below), the different depth slice maps calculated for the surveyed area reveal clearly discernible subsurface structures only in the mentioned grid surveyed at higher resolution (Fig. 4. 5. 6).



5



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Fig. 5: Gabii, westernmost grid, 1.30–1.40 m depth slice map with a transect spacing of 0.25 m

Fig. 6: Gabii, rectangular structures, schematic indication

## Empty Spaces and a Later Spatial Structuring System

7 In addition to these methodological results, the radar image allows for more detailed information about already known features and reveals structures so far unknown, but also raises new questions.

8 In the investigated area, the previous use of magnetometric methods, which are particularly suitable for the documentation of *negative* features such as pits or ditches, had detected the streetside ditches of the road to Tibur and of two streets running perpendicularly to it to the southeast. These street features were not detected in our GPR survey, a method particularly suited for identifying *positive* features such



as walls or soil compaction. Other features aligned with the streets were also not detected. This suggests that no solid structures such as foundations or house walls lined the streets. Although it is possible that formerly existing buildings were later cleared, the complete absence of further geophysical anomalies rather suggests that the spaces between the streets could have remained undeveloped, or that development could have been limited to very light structures, e.g. clay constructions, which would not impact the ground in any significant way.

<sup>9</sup> Clearly visible, however, are extensive linear structures running in north-south direction at a distance of 20–22 m from each other, which correspond to ground waves recognizable on the surface as well as in aerial photographs. They also appeared in the magnetometric surveys and were previously interpreted as »agricultural activity«<sup>6</sup> or, more cautiously, as partly »negative linear feature«, partly »modern feature«<sup>7</sup>. New statements can now be made about these: the negative features documented by earlier magnetometric surveys can now be addressed as foundation trenches, in which solid linear structures are inserted, which could be documented by means of GPR in depths ranging from 0.35 m to 1.9 m. Since dating is not possible based on geophysics alone, the entire spectrum of options must be taken into consideration, ranging from ancient walls to modern stone settings, such as field boundaries.

<sup>10</sup> Approximately 3.5–4 m west of the westernmost of these rediscovered linear north-south structures and aligned parallel to them, several structures with lengths of up to 10 m were detected for the first time (Fig. 4. 5. 6). They lie at depths between 0.35 m and 1.65 m and consist of a pi-shaped and a linear structure. As with the aforementioned linear north-south structures, ancient stone settings as well as modern installations must be equally considered. In particular, as there is now a tree in the centre of these structures, it presently cannot be ruled out that they are recent horticultural enclosures.

<sup>11</sup> The extensive north-south structures and the features under the tree seem to correspond to a linear structure running perpendicularly to them in east-western direction, revealed by aerial photograph analyses a little further south; in earlier mappings, this was interpreted as a side road leading east out of the city through a postulated gate in the fortification wall.<sup>8</sup> If the large-scale grid in question, roughly oriented to the cardinal directions, was indeed a street system, it would clearly deviate from the one so well documented by magnetometric survey and by excavations: the main street of Gabii is aligned with the crater rim, while the secondary streets run radially down the slopes. Therefore, the north-south and east-west structures in question do not seem contemporary to the ancient street layout.

<sup>12</sup> Furthermore, aerial photographs show that the same system of parallel lines continues on the fields adjoining to the east, outside the ancient city walls (Fig. 7). If this is indeed a coherent spatial planning system, it is likely to be either older or younger than the Gabii fortification belt which it crosses. Results from excavations northeast of the area surveyed in 2022 and south of the settlement suggest that the whole city was walled around the 7<sup>th</sup> century B.C. After a series of improvements and repairs, some rebuilding of the northern part of the city wall can be dated in the middle of the Republican period, and the fortifications were abandoned and dismantled at the latest in the 1<sup>st</sup> century A.D., when the ditches in the south were filled.<sup>9</sup> As such an extensive structuring appears unlikely in the 7<sup>th</sup> century B.C. or earlier, the system of linear features oriented to the cardinal points seems to date *after* the republican fortification

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<sup>6</sup> Becker et al. 2009, figs. 4 and 6.

<sup>7</sup> Kay 2013, fig. 13.7.

<sup>8</sup> Helas 2010, fig. 12; Kay 2013, fig. 13.7.

<sup>9</sup> Helas 2016; <https://www.iak.uni-bonn.de/de/institut/abteilungen/klassische-archaeologie/forschung-1/projekte/gabii-latium-die-befestigungen-von-archaischer-bis-in-mittelrepublikanischer-zeit>; Fabbri – Boichichio 2022.



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phases. Furthermore, the orientation of the lines corresponds neither to the Sullan, nor to the Tiberian centuriation of the area; as also their spacing of 20–22 m is significantly narrower than the Roman base units for surveying, the *actus* of 35 and the *vorsus* of 30 m, they seem not to date from antiquity at all.<sup>10</sup> However, further information on the dating and interpretation of this system, which has now proved to be by no means only superficial, can only be obtained by a small-scale test trench within the surveyed area.

<sup>13</sup> Overall, our short GPR prospection suggests that even if the urban area east of the road fork was provided with streets, it was still not particularly densely or solidly built-up. Traces of the radial ›herringbone‹ street system so typical of Gabii had already been detected by magnetic prospection, but the broad absence of other geophysical features – even robber trenches or the post holes known from other Roman settlements should have been detected – strongly suggests that mainly wasteland existed to the east of the fork. The space between the partly excavated city centre and the walls might never have been extensively built, and this urban wasteland extended strikingly close to the urban nucleus. The fact that the Late Antique church of San Primitivo is not far from the investigated area could be another indication that the more densely built-up area of ancient Gabii might not have extended particularly far to the east. This seems to confirm the suspicion that the street system was not developed over a longer period, but laid out in a single extensive structuring project.<sup>11</sup> As in many other ancient cases, the inhabitants created ample space for future growth – space that the stagnating settlement never came to use.<sup>12</sup>

Fig. 7: Gabii, area taken under investigation (indicated in white) and neighbouring fields to the east; aerial photograph taken on 12 October 2015

<sup>10</sup> Libertini 2019, 7–8. 30–36.

<sup>11</sup> Becker et al. 2009, 639 already suspected a single ›master plan‹, while Samuels et al. 2021, 8 seem to favor a gradual extension. To Johnston – Mogetta 2020, 93, contemporaneity was a ›logical preliminary hypothesis‹.

<sup>12</sup> This also correlates with findings from the excavations that show how even the plots in the centre were only developed little by little, with some remaining empty for all the city's life (Samuels et al. 2021, 8 f.; Johnston – Mogetta 2020, 116).

14 The GPR results might help solve a dilemma in the historiography of Gabii: Roman writers of the 1<sup>st</sup> century B.C. emphasise the desolate state of Gabii in their time. Most notably Cicero states, obviously exaggerating, that it was even hard to find anybody at Gabii that could represent his city at the ancient Latin holiday;<sup>13</sup> for Horatius, Gabii is the best comparison to judge desolation,<sup>14</sup> and Propertius compares Gabii's emptiness with its once huge population.<sup>15</sup> However, excavations in different areas of the city centre were so far not able to provide a lot of material evidence for these pictures, and the excavators prefer the term »transformation« over »decline« when talking about Early Imperial times.<sup>16</sup> The reason for the Roman authors' verdict therefore might be more a *perceived* than a real deurbanisation: Gabii was known as one of the most ancient urban centres of Latium, a member of the Latin cult alliance and not least the place where Romulus and Remus were educated in Greek letters and customs<sup>17</sup> as well as »the other branches of knowledge which are meet for those of noble birth«<sup>18</sup>. But the Republican appearance of Gabii did not match the stories of an important ancient centre culturally dominating northern Latium, so the only possible explanation was that the city must have significantly shrunk. What Cicero and Horace did not know was that Gabii had never been much more populous – they just assumed that a city of Gabii's fame must have originally extended across all its intramural space. This line of reasoning is shown explicitly by the 1<sup>st</sup> century B.C. historian Dionysius of Halicarnassus, who mentions the city in his report on the conquests of Tarquinius Superbus (Dion. Hal. 4, 53, 1<sup>19</sup>):

Πόλις ἦν ἐκ τοῦ Λατίνων γένους Ἀλβανῶν  
ἀπόκτισις ἀπέχουσα τῆς Ῥώμης σταδίου  
ἐκατὸν ἐπὶ τῆς εἰς Πραίνεστον φερούσης ὁδοῦ  
κειμένη·  
Γαβίους αὐτὴν ἐκάλουν·  
νῦν μὲν οὐκέτι συνοικουμένη πᾶσα, πλὴν  
ὅσα μέρη πανδοκεύεται κατὰ τὴν δίοδον,  
τότε δὲ πολυάνθρωπος εἰ καὶ τις ἄλλη <καὶ>  
μεγάλη.  
Τεκμήριαιτο δ' ἂν τις αὐτῆς τὸ μέγεθος καὶ τὴν  
ἀξίωσιν ἐρείπια θεασάμενος οἰκιῶν πολλαχῇ  
καὶ τείχους κύκλον, ἔτι γὰρ ἔστηκεν αὐτοῦ τὰ  
πλεῖστα.

There was a city of the Latins, which had been founded by the Albans, distant one hundred stades from Rome and standing upon the road that leads to Praeneste.

The name of this city was Gabii.

To-day not all parts of it are still inhabited, but only those that lie next to the highway and are given up to inns; but at that time it was as large and populous as any city.

One may judge both of its extent and importance by observing the ruins of the buildings in many places and the circuit of the wall, most parts of which are still standing.

15 As Dionysius does mention ruined buildings, some signs of decay must have been clearly visible, and excavations have shown how in the 1<sup>st</sup> century B.C. residential areas along the crater rim were abandoned.<sup>20</sup> Dionysius' main argument for Gabii's decline, however, is the urban void between its old fortification circuit and the settled centre – a void that could have been the result of centuries of neglect that obliterated all surface traces of Archaic housing, but that according to our GPR prospection seems to have never been much more developed.

13 Cic. Planc. 23: »nisi forte te Labicana aut Gabina aut Bovillana vicinitas adiuvabat, quibus e municipiis vix iam qui carnem Latinis petant reperiuntur«.

14 Hor. epist. 1, 11, 7–8: »Scis, Lebedus quid sit: Gabiis desertior atque / Fidenis vicus.«

15 Prop. 4, 1, 34: »et qui nunc nulli, maxima turba Gabi«; cf. also Lucanus' *Pharsalia* in which Gabii forms part of his apocalyptic vision of post-war Italy (Lucan. 7, 392–396).

16 Andreotti – Bochicchio 2022, 20.

17 Dion. Hal. 1, 84, 5.

18 Plut. Romulus 6, 1, transl. Perrin 1959.

19 Dionysius of Halicarnassus. *The Roman Antiquities* IV, edited by J. Henderrson, translated by E. Cary, Loeb Classical Library 364 (Cambridge, MA 1943). Verwendete Textausgabe: Karl Jacoby, *Dionysi Halicarnasensis Antiquitatum Romanarum quae supersunt*, vol. 2 (Leipzig 1888).

20 Samuels et al. 2021, 9.



## Future Research

<sup>16</sup> For a number of reasons, these conclusions have to be regarded as preliminary: First, although providing a section through more than one *insula*, the surveyed area only covers a small part of the unexcavated, walled area. It therefore remains unclear how far the (negative) findings can be extrapolated. Second, only a small part of the area was surveyed with the reduced track spacing of 0.25 m, so some minor features might not be recognizable at this intensity. Third, due to the unexpected wasteland in the surveyed area, the goal of testing the practicability of GPR for built-up ancient urban areas of Gabii could not be achieved; although the pilot campaign yielded clear results, a full understanding of the potential of the GPR methodology at Gabii can only be achieved through further prospecting. For this purpose, it would seem most sensible to select a new survey area according to the following specifications: it should be both directly adjacent to the via Praenestina as the main axis of the city and located immediately next to or between already excavated major structures. In this way, architectural remains can be expected with a higher probability. Moreover, the adjacent excavation areas could then provide important clues for interpreting the GPR results. A suitable area for investigation according to these criteria would be the slope bordering the via Praenestina to the northwest (up to the beginning of the quarries) between the ›Hamilton Forum‹ and the baths (Fig. 1). Magnetometric surveys and aerial photography show some downslope streets and smaller buildings here.<sup>21</sup> A GPR prospection of this area carried out in high resolution could offer a better understanding of the roadside development in the immediate vicinity of larger monuments in the city. This could also provide important information for the interpretation of further small-scale GPR surveys at other, less contextualised locations within the archaeological area of Gabii.

F. H. – J. S.

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<sup>21</sup> Becker et al. 2009, fig. 5–6; Kay 2013, figs. 13.4; 13.7; Helas 2010, fig. 12.

## References

- Andreotti – Bochicchio 2022** C. Andreotti – R. Bochicchio, L'Area archeologica di Gabii tra tutela, ricerca e valorizzazione. Le attività della Soprintendenza Speciale Archeologia, Belle Arti e Paesaggio di Roma, *Bollettino di Archeologia Online* 13, 2022, 4, 5–25
- Becker et al. 2009** J. A. Becker – M. Mogetta – N. Terrenato, A New Plan for an Ancient Italian City. Gabii Revealed, *AJA* 113, 2009, 629–643
- Fabbri – Bochicchio 2022** M. Fabbri – R. Bochicchio, Nuove considerazioni sulle mura di Gabii, *Bollettino di Archeologia Online* 13, 2022, 4, 27–52
- Helas 2010** S. Helas, Prospezioni geofisiche a Gabii. Interpretazioni e prospettive per uno studio delle mura, in: G. Ghini (ed.), *Lazio e Sabina 6. Atti del Convegno. Sesto Incontro di Studi sul Lazio e la Sabina Roma 4–6 marzo 2009* (Rome 2010) 249–258
- Helas 2016** S. Helas, Nuove ricerche sulle fortificazioni di Gabii. Le indagini sul versante orientale dell'acropoli e sul lato meridionale della città, in: P. Fontaine – S. Helas (eds.), *Le fortificazioni arcaiche del Latium vetus e dell'Etruria meridionale (IX–VI sec. a.C.). Stratigrafia, cronologia e urbanizzazione. Atti delle Giornate di Studio Roma, Academia Belgica, 19–20 settembre 2013* (Brussels 2016) 91–109
- Johnston – Mogetta 2020** A. C. Johnston – M. Mogetta, Debating Early Republican Urbanism in Latium Vetus. The Town Planning in Gabii, between Archaeology and History, *JRS* 110, 2020, 91–121
- Kay 2013** S. Kay, Geophysical Survey of the City of Gabii, Italy, in: P. Johnson – M. Millett (eds.), *Archaeological Survey and the City* (Oxford 2013) 283–302
- Libertini 2019** G. Libertini (ed.), *Liber Coloniarum* (The Book of Colonies). From the *Gromatici Veteres* (The Ancient Land Surveyors) in the Transcription of Karl Lachmann (Berlin 1848), with translation into English and Figures Concerning the Persistences of Traces of the Ancient Limitationes in Modern Places (Frattamaggiore 2019)
- Perrin 1959** B. Perrin, Plutarch's Lives. In Eleven Volumes. 1. Theseus and Romulus, Lycurgus and Numa, Solon and Publicola, *The Loeb Classical Library* 46 (Cambridge, MA 1959)
- Samuels et al. 2021** J. T. Samuels – S. Cohen – T. Johnson – V. Moses – M. Naglak – R. Opitz – L. Banducci – M. D'Acri – L. Motta – A. Rittershaus – E. Stewart, Reimagining Urban Success. Rhythms of Activity at Gabii, 800 BC–AD 600, *Antiquity* 2021, 1–20
- Zapelloni Pavia et al. 2022** A. Zapelloni Pavia – A. Gallone – M. Mogetta – N. Terrenato, Lo sviluppo urbano di Gabii (RM). Dieci anni di indagini del Gabii Project nell'area centrale della città, *Bollettino di Archeologia Online* 13, 2022, 4, 53–79

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Fig. 5: Carsten Mischka – Markus Trodler,  
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Fig. 6: Julian Schreyer

Fig. 7: <https://livingatlas.arcgis.com/wayback/>,  
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