Towns and Territories

Introduction

The British School at Rome has been a forerunner in promoting the use of geophysical surveys to investigate archaeological sites, with a particular emphasis on Roman urban landscapes. The Roman Towns Project, directed by Prof. Simon Keay and Prof Martin Millett, was born out the British School at Rome’s Tiber Valley Project. The aim of the project was to develop an understanding of the spatial organization of comparative Roman urban centres and nucleated sites through the integration of non-destructive techniques, including geophysical and topographical survey, together with surface collection. The success of this venture was the catalyst for both the growth in use of geophysical survey techniques at other sites in Italy and the inception of a dedicated survey team based at the BSR.

The collaboration between archaeological geophysicists from the BSR and the University of Southampton’s Archaeological Prospection Service (APSS) has the benefit of over 10 years of experience conducting geophysical and topographical survey, based for the most part, in Italy, but also extending around the Mediterranean basin. Since its establishment, the partnership between these leading research institutions has conducted over 60 separate survey projects for a wide spectrum of research partners such as universities, regional authorities and public institutions both in Italy and abroad.

Although spanning a broad chronology, dating from the prehistoric era to the medieval period, the majority of these projects have tended to focus on aspects of Roman urbanism. Ranging in size from individual monuments to townscapes, and in stature, from Roman road stations to Imperial palaces, the recurring theme of ‘cities and their territories’ is forcibly strong.
The Town

The archetypal Roman town plan is often illustrated simplistically, like a child’s drawing, contained within a neat rectangular circuit wall interrupted only by four gateways at the cardinal points. Inside, a regimental orthogonal street grid separates neat *insula* blocks and the forum is centrally positioned at the junction of the main crossroads. A temple dominates one end of the forum and adjacent are the requisite market, shops and basilica buildings. Replete with bath complex and theatre, this is the model Roman town. Many Roman towns do conform to this ideal, particularly those founded *ex nihilo* but our geophysical survey work has repeatedly shown that it is the irregularity of town plans that constitutes the norm.

The study of Roman urban settlements cannot be fully understood without a corresponding study of the territory that surrounds them, including the funerary areas just outside the town walls. Integral to the town, is the rural villa. Our geophysical research has revealed a series of Roman villas and their diverse functions and differing scales of luxury reflects their role in the hinterland – to serve the towns.

Potentia

Potentia exemplifies the ideal of a Roman town. Founded as a Roman colony in 184 BC and fully urbanized and defended by 174 BC, Potentia is perched on a sandy beach ridge at the ancient mouth of the Potenza River in Marche. Archaeological investigations since the 1940s have continually confirmed that the town was founded on a green-field site. In recent years, crop marks, captured in a succession of aerial photographs taken by Prof Frank Vermeulen as part of the Potenza Valley Survey, have established the general orthogonal layout of the town contained within a rectangular circuit wall.

![Fig. 1 Potenza](image)

Our gradiometer survey (fig. 1), carried out as part of the Potenza Valley project, clearly defined the overall plan and layout of the urban settlement. The forum, predictably, is at the central intersection of the principal roads. Shops appear to flank the west side of the forum, whilst the excavated remains of a portico and a temple dedicated to Jupiter, dominates its eastern edge. A large structure at the north end of the forum is most likely a public building and given its location it is tempting to interpret it as a basilica or sanctuary. *Insulae* blocks
appear cluttered with small structures denoting residential quarters and a theatre nestles in a depression, taking advantage of the natural topography in the eastern part of the town.

By conducting an integrated survey; combining aerial photography with results from a magnetometer survey, certain missing details of the spatial organization of the colony have been highlighted. The survey results revealed that, contrary to initial interpretations of the aerial photographs, the street grid extended to the limits of the town and the peripheral insulae blocks appear to contain structures suggesting that the inhabited area extended to margins of the town. The discrepancy between the aerial photographs and the magnetometer survey results is most probably the result of the profound depth of the buried remains. At a certain depth, the presence of walls will fail to generate crop marks but can still be detected by geophysical methods. The survey also highlighted the devastation to the southern part of the town caused by the successive flooding of the River Potenza in the post-Roman period. Clearly the town has been eroded away and the urban fabric simply peters out in this area.

What is intriguing from the geophysics results is that, despite there being evidence of occupation at the periphery of the town, not all the insulae within the walls appear to be built up suggesting that parts of the town remained unoccupied. This has implications on spatial organization of the colony especially with regard to the late antique period when the shifting political and economic situation, together with the environmental changes caused by the flooding of the river, led to the contraction of the inhabited area.

**Falerii Novi**

From the model town to the deviant ones. The geophysical survey, launching the BSR’s Roman Towns Project, of the entire intramural area of Falerii Novi (fig 2) in 1997 proved to be a pivotal project in terms of understanding the scope and potential of large-scale geophysical survey as a means to understand the urban fabric of Roman towns. The fieldwork strategy was intended as a departure from traditional excavation and detailed artefact studies.
The large scale of the project provided one of the clearest, most comprehensive town plans from Roman Italy, revealing aspects of the development of a Roman urban site with few parallels other than those of Pompeii and Ostia. Although magnetometry results do not usually allow for chronological distinction, the complete exposure of the urban layout of Falerii Novi possesses hints as to the possible development and growth of the town. At first glance, the internal layout of the town appears to adhere to an orthogonal grid pattern of streets but there are instances of peripheral roads that diverge from this conformity. The coexistence of several differing road alignments in tandem with the irregular and contorted course of the town’s circuit wall is the subject of scholarly debate. Did the town’s origin lie with an orthogonal core that, over time expanded irregularly and then became sealed within its defensive walls, or, did the regular internal organisation of the town best adapt itself to the pre-existing course of the town walls and the sacred processional ways?

**Gabii**

Although filled with discord, the town plan of Falerii Novi is at least recognisable as quintessentially Roman. The ancient town of Gabii is strikingly different. Lying on a neck of land between two volcanic craters southeast of Rome, Gabii was strategically positioned, possibly as early as the eighth century BC, to control a network of roadways connecting major urban centres and their territories.

![Fig. 3 Gabii](image_url)

Working with The University Michigan’s Gabii Project, directed by Prof Nicola Terrenato, a magnetometer survey was carried out over a vast proportion of the accessible areas of the site (fig 3). The survey results reveal that the layout of the ancient settlement was almost entirely driven by the conical slope of the local topography. Most prominent is an arcing arterial road that follows the natural contours around the neck of the crater. Unknown before this survey, it is this road that connects a series of roads that radiate from it in a subtle fan-shape, again determined by the natural topography. The overall layout is quite remarkable and above all, unique.
Although there is an excavated stretch of Roman road adjacent to the core of the main settlement, its course approaches and cuts into the urban area at an abrupt angle displaying nothing of the inherent nuance and delicacy associated with the rest of the town plan. Associated with Imperial funerary monuments, this stretch of road, thought by some to be the ancient Via Prenestina, evidently had no supremacy or control over the long established and exceptional street system.

**Interamna Lirenas**

More recently, our attentions have been focused on the town of Interamna Lirenas. Astonishingly, this entire Roman town has been largely ignored but a new collaborative initiative, under the direction of Dr Alessandro Launaro and Prof Martin Millett of The University of Cambridge together with the Soprintendenza del Lazio, has reignited the research potential of this site. Perched on a narrow saddle of land overhanging the Liri Valley and bisected by the course of the Via Latina, Interamna Lirenas was founded as a Roman colonial stronghold. Readdressing the issue of Roman colonisation is a fundamental part of this project as well as understanding the relationship between the town and its territory. Far from adhering to the standardised notion of the Roman town plan; Intermana Lirenas occupies an irregular shaped territory. A perimeter wall probably enclosed the northeastern edge of the settled ridge and, by contrast, the southwestern edge appears to be naturally defended, taking advantage of the steep slopes of the river gorge.

Fig. 4 Interamna Lirenas
As a result of the local topography, the town takes on an elongated and non-conventional form. The survey results reflect this (fig 4) but yet, in the central and northern part of the town the division of land into regular parcels of land (each about 50m by 40m) separated by an orthogonal street grid springing from the Via Latina is evident. The forum is located centrally but is not positioned, as one would expect, longitudinally along the Via Latina but instead occupies a natural depression in the topography, oriented northeast/southwest. As a consequence, it is the short side of the forum that opens onto the main road and is in complete contrast to the layout of the forum in neighbouring Fregellae where the forum sits lengthways, astride the Via Latina. The forum appears to be colonnaded and only after the integration of a GPR survey at its eastern extent, was the theatre clearly revealed (fig. 5). The monumental scale of the civic centre is testimony to the importance of this town.

![Image of urban form](image1.png)

What is most conspicuous about the urban form of Interamna Lirenas is the apparent ‘ribbon’ development of the built up area, closely hugging each side of the Via Latina. Despite the extent and regularity of the urban divisions it is clear that the town periphery, at least in its final phase, was set aside for open ground. The relationship between the actual urban area of the town, the physical boundary of the towns’ territory and the hinterland beyond, becomes more complex in this case.

**The Territory**

The complete town plan presented by way of geophysical survey results obviously provides an overview of urban spatial organization on a large scale. The reach of the urban area, however, extends beyond the safety of its walls. The extra-mural survey north of Falerii Novi (fig 3), adjacent to the amphitheatre, provides an image of the organisation and function of space immediately beyond the town wall. Much of the archaeology in this area is broadly
aligned to the Via Amerina, which after exiting the town through the North Gate diverts on a northwest course. Beyond the handful of extant tombs, the geophysical survey, together with aerial photographs, revealed that there is a complex funerary landscape outside the town. A series of regular enclosures containing rooms, mimicking the layout of houses for the living, flank the Via Amerina. The ‘domestic’ architecture of one in particular, suggests it is an elaborate funerary *schola*. The distinction between the living and the dead are further blurred by the proximity of allotments adjacent to the funerary monuments. Apparent as regular striations in the magnetometer survey results, this field system is evidence of agricultural activity in close proximity to the town. Beyond the immediate vicinity of the town, the villa was at the heart of production in the hinterland and supervised the exploitation of resources from both the land and the sea.

Monte Argentario

Maritime trade was a vital part of the Roman economy. After the sacking of the Cosa in the late first century BC, it was the local dominant families of the area that took command of the trafficking of goods by sea. One of these families was the *Domitii Ahenobarbi* who resided in the maritime villa of *Domitiana Positio*. The villa clings to the northern shore of Monte Argentario, and its sheltered littoral position offered protection against any rough weather that swept across the Tyrrhenian Sea. Visible in the shallow waters at the foot of the cliff are the remains of Roman fishponds. In addition, at the base of the rock face there is an extensive arcade of storerooms, undoubtedly part of a port system. This large investment into the trade, storage and cultivation of maritime resources was evidently financially beneficial. Partial excavation of the villa has exposed an intricately decorated mosaic and this elaborate adornment reflects the success of the villa’s productivity.
The ground-penetrating radar survey (fig. 6) carried out on the terrace where the villa stands, reveals the layout and dimensions of the villa although the estate was far more extensive, encompassing a large bath complex, cisterns, a cryptoporticus and of course, the port area. At the heart of the villa is an internal courtyard providing access to rooms on all sides. There is clear evidence in the survey results that the villa extends towards the edge of the terrace and the focus of these impressive rooms must surely have been the view out to sea.

Villa Magna

Even the Imperial villas, amongst their luxurious surroundings, were centres of bucolic production. Villa Magna, set against the dramatic backdrop of the Lepini Mountains, was the rural villa of the Emperor Marcus Aurelius. It was from here, as young man, that he documented the importance of wine production at the villa in letters to his tutor. Excavations directed by Elizabeth Fentress unearthed the *cella vinaria*: the very winery to which Marcus Aurelius refers. But Villa Magna was an Imperial villa and its vast extent, exposed by the magnetometer survey, reflects this (fig 7). The spur of land occupied by the villa estate appears to be quite densely built up and the residential quarters lie right on its tip, at the furthest point from the wine production centre. Identified by a large courtyard surrounded by a portico that provided access to the adjacent rooms, the Imperial residence boasted stunning views over the valley.

Fig. 7 Villa Magna
Between the private quarters and the winery appear to be a number of large courtyards, each aligned to best adapt to the contours of the land. At the entrance to the estate is a building composed, in plan, of a grid of small rooms. Excavation of part of this structure, originally thought to be a barrack block to house guards, instead revealed it to be the slave quarters. Up slope from the winery are a series of impressive cisterns. The combined volumetric capacity of the cisterns is an indication of the vast quantity of water needed across the estate for bathing, wine production and consumption.

The identification of the spatial organisation of the villa and its estate is enlightening. Different spheres relating to public, private, slave and production are highlighted but their cohesion is essential. The haphazard arrangement of structures seems misplaced and it is only when plan of the villa complex is draped over the topography, that the irregularity of the layout is understood as whole.

Conclusion

The application of geophysical survey has unraveled urban landscapes and prompted us to consider the spatial organisation of towns on a scale that was previously, in most cases, impossible without excavation. What is most apparent from this discussion of the towns is the sheer diversity of urban expression that exists. The irregular layouts of Roman towns far exceed the number of orderly and satisfyingly regular plans. The influence of the local topography, a pre-existing urban fabric and even sacred landmarks is not to be underestimated when considering Roman urban landscapes. But towns do not exist in isolation. It is their inextricable links with their territories and villa production centres in the hinterland that ensures their survival.

For more information www.bsr.ac.uk/research
Bibliography


