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ARCHAEOLOGICAL FIELDWORK REPORTS

This year's archaeological projects at the British School at Rome are here reported in a slightly expanded form. The work comprises the geophysical work conducted in collaboration with the University of Southampton, the work of the Herculaneum Conservation Project, and the results of activity with partner institutions undertaken with concessions applied for by the British School at Rome. We are grateful to all our partners for their support and collaboration.

The reports show the variety of methodologies applied to explore Italy from the Early Iron Age to the end of the Roman Empire and into the Middle Ages. Geophysics remains a key strength; but topographic work and excavation are combined also with conservation and public outreach. New projects reported on for the first time this year include the project at Segni.

The resulting picture shows both the integration of the BSR within international research networks, and the diversity of Italian archaeology, reflecting our own research themes of connectivity, landscape and urbanscape.

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GEOPHYSICS PROJECTS

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The archaeological geophysics surveys conducted this year by the British School at Rome and Archaeological Prospection Services of Southampton have concentrated on sites within Italy. A notable addition to the research capabilities of the BSR/APSS geophysics unit has been the procurement of ground-penetrating radar (GPR) equipment, with a 400 MHz antenna that reaches a depth of about 6 m. This now permits survey in heavily urbanized areas, where other geophysical techniques may not be feasible, and provides an additional method in an integrated approach. The benefit of GPR over other survey techniques is the possibility to collect and view data in three dimensions, thus enabling a greater understanding of the results.

SAN SALVATORE TELESINO (PROVINCIA DI BENEVENTO, REGIONE CAMPANIA)

A geophysical survey was completed at the medieval abbey complex in San Salvatore Telesino. This survey was conducted under the auspices of the Comune di San Salvatore Telesino and in cooperation with the Università Suor Orsola Benincasa of Naples, at the request of Prof. Federico Marazzi.

San Salvatore Telesino is located approximately 31 km to the northwest of Benevento, on the river Volturno. During the medieval period the settlement and the abbey at San Salvatore Telesino developed as important cultural centres. Although the exact date is unknown, it is likely that the Norman counts of Caiazzo founded the abbey before 1075; and an earthquake in 1094 caused the abbey to be rebuilt and extended. Unfortunately, by the nineteenth entury the abbey complex had declined considerably, and subsequently was deconsecrated (with the structure reutilized for agricultural purposes).

Still visible is the abbey's church, constructed in tufa blocks taken from the nearby Roman town of Telesia. The church is composed of three aisles terminating in apses, with a private chapel situated towards the front of the church. There are several well-preserved crypts decorated with frescoes of an unknown date, representing scholastic saints, such as Anselm of Aosta (and Canterbury), who resided at San Salvatore Telesino whilst completing his work *Cur Deus Homo* in 1098.

The form and extent of the abbey cloister were unknown, since any traces were buried, and its plan had only been hypothesized by archaeologists. Geophysical survey was employed as a non-destructive survey technique, to locate and map any subsurface structures relating to the cloister area, with a view to identifying a suitable area for excavation.

A multi-methodological survey allows a greater understanding of the nature of potential archaeological remains. Different survey techniques measure different attributes of the buried remains; and thus by comparing the results of different methods more information can be extracted. Therefore both a resistance survey and ground-penetrating radar (GPR) survey were undertaken at the site (Fig. 1), covering an area of 0.2 ha. The clarity of the results of the GPR survey has been vital in increasing our knowledge of the structural remains at this site, and the results have been essential in mapping the cloister to the south of the Norman church. In this instance, the results from the resistance survey were less conclusive, with much of the interpretation being aided through comparisons with the GPR datasets. Buried features have been identified largely as a consequence of the greater depth penetration offered by GPR survey. By superimposing GPR interpretations at different depths it is possible to suggest an overall plan of the layout and extent of the abbey complex, as well as gauging the preserved height of walls.

On the same alignment and directly to the south of the extant church is a square-shaped cloister, which appears to be of a typical Norman typology, composed of an inner open area surrounded on all sides by a portico. The western and eastern porticoes are flanked by a series of rooms. It is likely that a series of rooms is present also to the south of the portico, as archaeological remains extend beyond the survey area, although further investigation is required to confirm this hypothesis. The plans of other Norman abbey complexes in Italy have supported this interpretation. For example, San Liberatore alla Maiella (in the Abruzzo) appears to have a similar layout to San Salvatore Telesino, with three sides of the cloister being surrounded by a series of small rooms. Interestingly, on a different alignment to these structures is a building (and linking passageway) to the southeast of the church. Comparative studies have suggested that infirmaries were often built to one side of the church and have a different alignment to other monastic structures. Therefore, it is plausible that these remains may indicate the presence of an infirmary that was attached to the main claustral buildings by a passageway.

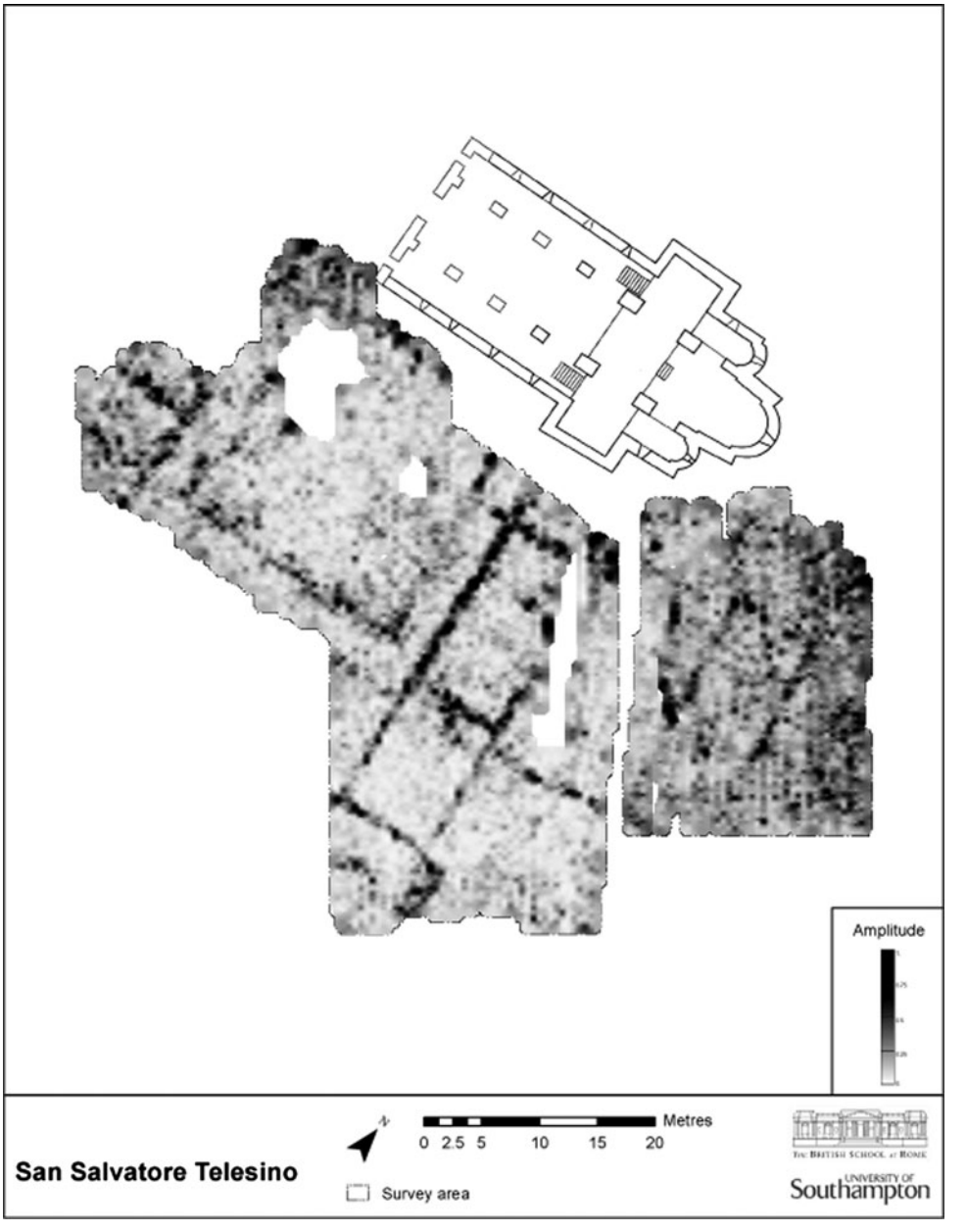

Fig. 1. GPR survey results from San Salvatore Telesino showing the Norman cloister and adjacent rooms of the abbey complex.

GERACE (FRAZIONE DI GERACE, PROVINCIA DI ENNA, SICILY)

The site of Gerace is situated in central Sicily, approximately 16 km south of Enna. It lies on the southwest slopes of Monte Gerace, at the head of an extensive valley system. The site gained importance between the third and fifth centuries AD. As a result of the growing

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demand for grain from Sicily, new landowners, from the senatorial class of Rome and from the western provinces, took up residence in Sicily. This period saw the construction of a number of large villas, the extensive and luxurious villa at Piazza Armerina, in central Sicily, being the most notable. The villa site at Gerace was discovered by chance during the creation of a drainage gully, prompting an archaeological excavation in 1994 that uncovered a substantial Roman villa. Some highly decorative mosaics show stylistic ties with those from the Villa Armerina and date this villa to the first decade of the third century AD. Evidence of three pottery kilns was unearthed a short distance downslope of the villa complex.

The geophysical survey, conducted on behalf of Prof. Roger Wilson of the University of British Columbia, served to map the extent of the villa complex and investigate the relationship between the villa and the pottery kilns that lie some 100 m to the southeast. The gradiometer survey (Fig. 2) covered an area of about 2 ha around the excavated remains and produced disparate results. The area immediately north of the extant villa complex yielded no clear archaeological remains. However, survey in the almond grove immediately to the east of the standing remains revealed a substantial complex of rooms and structures, presumably part of the villa estate. On the same alignment as the extant remains, the main building measures about 50 m in length, and internal divisions can be identified. The strongly positive readings indicate that there may be flooring intact within individual rooms. The pottery kilns are clearly evident as very strong dipolar anomalies on the southeastern margins of the survey, and the results

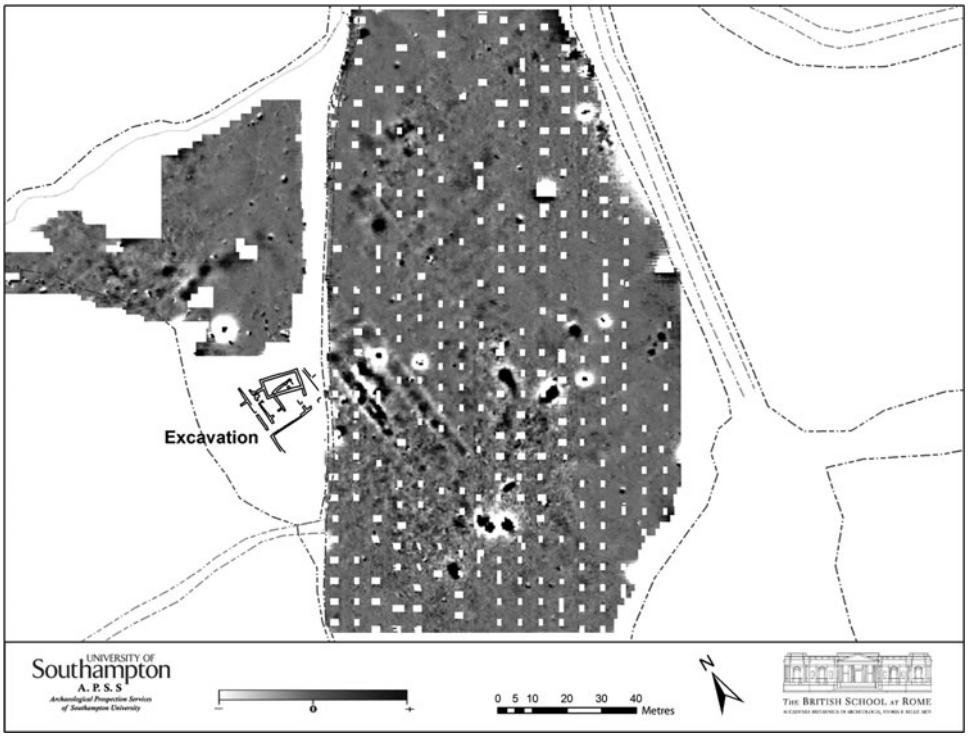

Fig. 2. Gradiometer survey results from Gerace in relation to the remains of the villa revealed by excavation.

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in the immediate vicinity are 'speckled' in response to the dense surface scatter of pottery and wasters.

It is tempting to attribute an agricultural function to this newly discovered building, as there must have been a productive zone of the villa and as it lies close to the kiln site. However, some caution must be exercised, as its proximity to the residential area of the villa might indicate an extension of the living quarters. Additional survey work to the south of the excavations may help to address this issue and reveal the full extent of the villa complex.

Further details and a full summary of all the work, both past and present, conducted by the BSR and APSS, can be found on *FastiOnline* (www.fastionline.org), as well as on the archaeology research pages of the BSR website (www.bsr.ac.uk/research/archaeology).

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THE HERCULANEUM CONSERVATION PROJECT: ACTIVITIES IN 2012–13 (COMUNE DI ERCOLANO, PROVINCIA DI NAPOLI, REGIONE CAMPANIA)

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The last year has seen continuing efforts to conserve and enhance the site of Herculaneum by the Herculaneum Conservation Project (HCP), a Packard Humanities Institute initiative in partnership with the Soprintendenza Speciale per i Beni Archeologici di Napoli e Pompei and the British School at Rome.

With the emergency phase concluded in recent years, Italian specialists and contractors working for HCP's private partners continue to tackle outstanding complex conservation issues and to carry out pilot projects to test approaches, exploiting the flexibility allowed in the sponsorship contract as opposed to the public works route. In 2012, the maintenance campaign in the Insula VI tested approaches, whilst a critical new phase of intervention in the 'nymphaeum' of the House of Neptune and Amphitrite required interdisciplinary input. The conservation of its wall mosaic has ensured not only the survival of this iconic element of the site, but the conservator-restorers contributed new archaeological knowledge, establishing the presence of gold leaf that had been used to pick out details of the mosaic, including Neptune's trident (Fig. 1). Other areas where the team has worked include the peristyle of the House of the Mosaic Atrium and its carbonized wooden ceiling panels, and, with the contribution of the Getty Conservation Institute, the House of the Bicentenary.

Since the renewal in 2009 of the sponsorship contract that underlies the collaboration, many of the conservation, maintenance and enhancement activities have come under 'Joint Programming', carried out by a team uniting project specialists and Soprintendenza staff. This sees the private partners draw up conservation proposals for projects, which are then paid for and implemented by the Soprintendenza with support. Plans for specific campaigns of critical works were submitted to the Soprintendenza for the House of the Mosaic Atrium, the House of the Carbonized Furniture and the House of the Wooden Shrine. In addition, an ambitious set of proposals for enhancing visitor access to the ancient shoreline was completed, an area that the Soprintendenza has not been able to address properly since it was excavated in the 1980s. 2012 also saw the Soprintendenza implementing HCP