In 2011 the Sangro Valley Project began new excavations on the outskirts of San Giovanni, a small farming community located on the lower slope of the eastern side of Monte Pallano. Survey work, begun in 2009, was also continued in the area of San Giovanni and on the slopes of Monte Pallano.

Excavations at San Giovanni

Trench SG 1000 is located in an agricultural field within the village of San Giovanni, situated on the edge of a wide terrace at the base of Monte Pallano. Modern houses are located to the north and west of the trench, preventing the possibility of further exploration in these directions (fig 1). The ground surface rises gently to the south to form a low plateau. Prior to excavation geophysical exploration was conducted using ground penetrating radar (GPR), revealing extensive, but undefined, anomalies of anthropogenic origin in the field. A backhoe was used to remove the disturbed ploughsoil from the area prior to excavation.

Excavation of SG 1000 revealed the sub-foundations of two structures, A and B. (fig. 2) No evidence for superstructures or contemporary ground levels associated with the sub-foundations were preserved due to extensive agricultural use of the land, especially deep ploughing, and perhaps the robbing of reusable building materials in antiquity. The sub-foundations of both structures are composed of unfinished stone rubble and sporadic fragments of ceramic building material set in mortar, laid into foundation trenches cut into a sterile, light yellow clay. Both structures are oriented approximately northwest-southeast. (fig 3)

Structure A, located in the northern portion of SG 1000, consists of two wall foundations (one ca. 0.70 m wide and preserved to a length of ca. 7.30 m, the other ca. 0.65 m wide and ca. 4.30 m in length) adjoining at right angles. A section was through the southeast wall, revealing a uniform construction technique throughout the foundation and that the foundation is preserved to a depth of ca. 0.30 m. Fugitive traces of a cut for a foundation trench of a third wall were in evidence.

Structure B, located to the southwest of Structure A, is a long rectangular structure (ca. 23.30 x 6.50 m) consisting of four rooms, aligned from northwest to southeast. The foundations are ca. 0.55-0.65 m thick, and a section made through one revealed that the foundations are pre-
Fig 2 Balloon photo (Mauro Vitale, photographer)

Fig 3 Plan of site (Buildings A and B)
served to a depth of at least ca. 0.55 m with a uniform construction technique (fig. 4). The arrangement of the northern end of Structure B is unclear as a modern drive-way prevented the extension of the trench to reveal the northern corner of the structure. The foundations of the two northernmost rooms within Structure B have notable features. The northernmost room (Room 1) appears to have been comprised of only three walls, as there is no trace of any foundation on the northeast side of the room. This may suggest a wide entryway into Structure B was located here. Room 2, located southeast of Room 1, is the largest room in Structure B (ca. 5.70 x 6.45 m) and features an apse on the southwestern wall. The northern end of Room 2 is narrower (ca. 5.0 m) than the rest of the room due to the doubling of the foundations; these more substantial foundations may have supported an archway opening into the main part of the room. An accumulation of stone rubble, including a fragment of drilled, vegetal relief sculpture (SF 174) (fig. 5), was located adjacent to Structure B, in the angle created by the apse and the southwestern wall, as well as some carbon, perhaps indicative of a destruction phase for Structure B.

The dating of Structures A and B relies on the evidence of material recovered from the ploughsoil overlying the foundations, as no ancient ground level is preserved and no datable material was recovered from the soundings made through the foundations. The ceramics recovered from the ploughsoil suggest that the most intensive period of activity on site occurred during the 3rd-7th centuries C.E., although the full range of dates indicated suggests local activity from the Roman Republican through the early Medieval periods.

In addition to Structures A and B, the excavation of SG 1000 revealed a deposit of material that appears to have been dumped at the base of the plateau located to the west of the trench. The full extent of this deposit is unclear as only a portion of it (ca. 4.0 x 6.0 m) was exposed. A large variety of household and production-area materials were recovered from this deposit, including fine and coarseware ceramics, stone and terracotta building materials, faunal remains, glass, and metals. Most notable are a nearly complete coarseware vessel (fig 6) and large portions of two

Fig 4 Sondage cut through subfoundation
Small Finds

One hundred and fourteen small finds from San Giovanni were catalogued in the 2011 season. The vast majority were found in the disturbed topsoil (context 1001) and the late Roman/early Medieval rubble heap (context 1003). Both of these contexts yielded around sixty pieces of limestone opus reticulatum. (fig 7) Together with two well-preserved terracotta pieces of opus spicatum (fig 8), these finds suggest the presence of a well-constructed Roman building in the area. Several fragments of box tile and tubuli (fig 9) were recovered throughout the site, an indication that one of the buildings in the area was a bath or had a hypocaust heating system. Architectural finds such as the sculptured limestone block with incised floral motif (SF 174) suggest that the site may have been reused in the early Christian period. (fig 5) Two other survey finds are possibly early Medieval, an octagonal stone colonette (SF 181) and a square paving tile displaying a large cross motif (SF 180).

Iron artefacts are numerous, while other materials such as glass, bronze, lead, bone and ceramic are less well represented. In addition to large quantities of iron slag (c.190 fragments) the excavation uncovered several small to medium-sized iron nails, almost all with hemispherical heads and square shanks. The nails resemble those from nearby Monte Pallano, which were found in Hellenistic and Roman levels. There were also a number of iron sheets, some with circular perforations, which might originally have been blades. Some of the finds are remarkable for their level of craftsmanship, such as the small, hemispherical bronze bead with incised decoration (SF 194) and the bone nail cleaner (SF 137). Among the various glass finds it is possible to discern a few vessel bases and rims, such as a green-glass drinking cup, of which only the base and foot ring survive (SF 132). Ceramic finds range from the above-mentioned paving bricks and box tiles, to large dolium fragments reused as building material (SF 217), and wasters suggesting the presence of a pottery kiln (SF 206). The few lead finds include a small thin sheet with a square perforation in the centre (SF 110) which could be part of a lead lamp stand.

R.S.

Pottery Assemblage at San Giovanni 2011

The main phases of activity from the site date from the early third century to the seventh century A.D., with a cluster of activity around the sixth century A.D. There is significant residual material from both contexts (1001 and 1003) dating roughly from the first century B.C. as well as from the Medieval period, due to the significant plowing of the site. African Red Slip, represented by a few fragments from Productions A, C, D and A/D dating to the first century A.D. to ca. the seventh century A.D., is attested in both contexts. One rim of Production D was identified as Haynes Form 9 from Context 1001. Context 1001 also produced two fragments of a painted ware also found at Crecchio and San Salvo dating from the fifth to the sixth century A.D. (fig 10). Pottery fragments recovered from Context 1003 were generally larger, ranging roughly from 5-10 cm in length, than those recovered from Context 1001. The pottery fragments from Context 1003 occurred in more discrete clusters allowing for the identification of joining fragments and partial vessel reconstruction. The majority of the assemblages from both Context 1001 and Context 1003 consisted of locally produced common ware or coarse/cooking ware based on the fabric inclusions of quartzite and flint. The most frequent form taken by the common ware and the coarse/cooking ware appear to be handle-less jars dating to the early sixth to seventh centuries A.D.. Amphora fragments from Context 1001 were primarily of Italian origin, including one stamped handle of an ovoid amphora from Brindisi (probably Manacorda Type 5) which can be compared to examples coming from the kilns of Giancola with the stamp of ARCELAV- or Arc(h)elau(s), a slave of Visellius and dated to the first half of the 1st century B.C. (fig 11).

H.C.

San Giovanni Field Survey 2011 (Fig. 12)

La ricognizione intensiva intrapresa nell’ambito della sessione 2011 del Sangro Valley Project ha esplorato il potenziale archeologico sulla long durée del centro abitato di San Giovanni (Tornareccio, Chieti) già marginalmente coinvolto nelle precedenti campagne di ricognizione (Phase 1 e Phase 2 del Progetto). L’area scelta per la campionatura è individuata da un transetto che si estende a nord-est e a sud-ovest del sito SG 1000 con una superficie di 875.350 m². All’interno di questa zona sono state selezionate le unità da percorrere definite sulla base dell’uso agri-
Fig 5 architectural relief fragment with floral ornament (SF 174)

Fig 6 nearly complete coarseware vessel (P253)
Fig 7  Opus reticulatum blocks (SF 112)

Fig 8  Opus spicatum (SF 211 and 215)
Fig 9 box-tile fragment (SF 114)
Fig 10 fragment of painted ware (P25)

Fig 11 Stamped ovoid amphora handle from Brindisi (SF 182)
collo del suolo e dei confini di proprietà, con l’intento di agevolare la definizione dei valori da assegnare ai parametri di registrazione dei dati, fissati come colonne/campi del database “CERA” nella sezione appositamente sviluppata per la ricognizione pedestre, e inseriti in tempo reale mediante l’impiego di un dispositivo portatile tablet iPad 2. Preferendo condizioni di maggiore visibilità del suolo e/o distanza dai nuclei abitati moderni, è stato possibile coprire solo il 14% dell’area designata. Le unità sono state percorse con intervalli di spazio tra i ricognitori variabili da 1 a 5 m, a seconda dell’estensione e del personale disponibile.

Le caratteristiche topografiche e geologiche dei rilievi pedemontani su cui sorge l’insediamento di San Giovanni condizionano la situazione di giacitura del materiale archeologico di superficie quasi sempre recante le tracce della subita colluviazione e, molto spesso, mischiato a rifiuti moderni. Le aree più stabilì, rese tali mediante terrazzamenti artificiali, raramente naturali, sono attualmente interessate dalla presenza di costruzioni moderne e di strade. Ciò induce all’ipotesi che la strategia insediativa moderna ricalchi almeno in certa misura quella antica, e che la prima si sia servita delle modifiche apportate al paesaggio dalla seconda.

In linea generale, il materiale archeologico ceramico rinvenuto è riconducibile alla sfera delle attività ed dell’edilizia domestiche, ma non si è osservate concentrazioni in situ. Ciò nonostante, nel caso dell’unità 3044 è stato possibile ipotizzare una colluviazione del materiale ceramico rinvenuto a partire dall’unità 3019, una terrazza agricola situata immediatamente al di sopra di essa le cui scarce condizioni di visibilità del suolo non hanno consentito di accertare la presenza di un sito sepolto. Il materiale diagnostico suggerisce un orizzonte cronologico che si estende dal periodo tardo-repubblicano a quello tardo-imperiale. Una simile situazione si potrebbe avere anche nelle unità 3040, 3041, 3042, 3046, 3047 nelle quali si è rilevata una considerevole dispersione di frammenti di impasto, avvenuta a partire dal contiguo piano terrazzato situato ad est dell’unità 3046 o più probabilmente dal livello delle abitazioni moderne. Un’altra situazione di interesse è quella incontrata nell’unità 3020 dove ad un’alta densità di ceramica d’impasto è associata la presenza di n. 17 oggetti in selce, alcuni dei quali lavorati.

Da citare, infine, sono i ritrovamenti sporadici effettuati grazie a segnalazioni dei locali: un frammento architettonico di terracotta modellata a mano, grandi e numerosi frammenti di uno o più recipienti in impasto (probabilmente dolia), un frammento di colonnetta a sezione ottagonale in pietra e un mattonello quadrato, quasi intero, con un motivo a “x” tracciato, secondo le diagonali, sulla superficie a vista.

Sebbene i materiali archeologici rinvenuti nel corso della ricognizione non contribuiscano in maniera inequivocabile all’individuazione di nuovi siti, attestano tuttavia un’occupazione/frequentazione di San Giovanni che non conosce soluzione di continuità dall’epoca preistorica fino all’età post-medievale.

B. F.

**Agricultural Terrace Survey on Monte Pallano (Fig. 13)**

During the Sangro Valley Project’s 2010 study season, we began a project of mapping relict agricultural terrace walls on Monte Pallano. Pallano today is mostly covered in forest, but before the Second World War it was largely clear of trees and used extensively for agriculture and animal pasturing. Most of the terrace walls that are still visible today probably date to the early modern period, but it is possible that terracing was extensively practiced in antiquity as well. Understanding the spatial distribution and chronology of agricultural terraces on Pallano is key to reconstructing the history of land use in this area.

The 2011 terrace survey was designed to expand upon the work begun in 2010. The survey and mapping component of the project aimed to document the spatial distribution, form, construction style, surrounding environment, and state of preservation of agricultural terraces. This data will be used to analyze the spatial patterning of land use in this area and to augment our record of archaeological features, particularly in the densely vegetated areas of Monte Pallano.

Four transects were initially selected for terrace survey: a section of the north face of Pallano, a transect across the upper (unforested) ridge toward the northern peak, and two areas on the south face of Pallano, one above Acqua-chiara and one running between San Giovanni and Lago Nero. The survey was also extended to the open fields west of San Giovanni, to record terrace features in this area as a complement to the findings of the field-walking survey in this area. The northern and southern flanks, which are densely forested, were explored by means of the various hunting trails and abandoned tractor paths that criss-cross the slopes; the upper ridge of Pallano and the areas around San Giovanni, which are mostly open meadow or cultivated fields, were walked in 10-20 m intervals running east-west or north-south. Survey was carried out in teams of two to three.

The data collected this season have good potential to greatly deepen our understanding of agricultural terracing in this area. While a significant portion of Monte Pallano and the surrounding area has been documented, not every single extant terrace has yet been recorded. However, there is now enough of a representative sample to begin to track
Fig 13 SVP Terrace Survey transects 2010-2011
patterns of particular types of terraces occurring in specific places. It can be observed that the south face of Pal-lano is conspicuously un-terraced, indicating a different system of land management than what is seen elsewhere; the north ridge and the west faces both exhibit a particularly intensive program of terracing, whereas terracing appears more sporadic on the northern and eastern flanks, which suggests different communities may be making use of these slopes and with differing agricultural regimes. Topography and geomorphology undoubtedly play a significant role in this distribution as well. GIS analysis during the 2011-2012 academic year will focus on identifying and characterizing these different spatial patterns of terrace distribution and construction style.

J.C.

**Technology and Paperless Recording (Fig. 14)**

The 2011 season was the SVP's first experience with both paperless recording and a fully integrated project database. The database was created over several months using Filemaker Pro and was hosted on an Apple Mac Mini server in the Project’s computer lab. Data recording during excavation and survey was performed using seven Apple iPads with software by Filemaker. Special digital camera memory cards from Eye-Fi allowed the wireless transfer of images to the iPads, which enabled excavators to immediately add captions to their photos using the Photosmith app while in the field.

The paperless system quickly proved to have many advantages over traditional paper recording methods, namely: much quicker exchange of information between the field and specialists; the ability to back up field data twice daily; the ability to immediately label and caption photos taken in the field instead of waiting several hours or days; a significant decrease in human error by having many things happen automatically; an increase in the consistency of terminology, by virtue of forcing users to choose from lists of options; an elimination of the significant amount of time and manpower previously required to digitize each paper record; and an increase in the amount of information available to each individual user, accessible in a much faster and easier manner. While some problems were encountered, the vast majority of them were fixed within a day. It was expected that a few issues would arise during the development of an entirely new system, but fortunately all of the issues were fairly minor.

After only one season of work, the database currently contains over 950 records, covering everything from Trenches to Micromorphology Samples, in addition to containing over 900 images. All of this data is searchable, and all of it is linked together in a logical and user-friendly manner. The database will also be accessible to SVP staff members around the world over the internet.

The SVP’s experiments with technology this season were a resounding success, especially in the use of iPads. The devices’ flexibility allowed the SVP to use them for excavation, two survey projects, and recording by specialists. This type of digital recording system is still in its infancy in archaeology, but it has enormous potential to revolutionize the way archaeological data is collected, managed, analyzed, and disseminated.

C.M.

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