Sangro Valley Project: Report on the 2009 Season

Between 2002 and 2009 the Sangro Valley Project undertook excavations of two rural sites in the area known locally as Acquachiara, overlooking the saddle between the Sangro and Sinello rivers where, on the basis of the find of the fragment of archaic funerary sculpture known as the 'Atessa torso', scholars have hypothesised the presence of an archaic cemetery. One site (known as ACQ 8000) dated to the archaic period, the other (ACQ 10000) to the early Roman empire; both were concerned with the storage and processing of primary and secondary products of the local agricultural regime. The excavations in both areas have now been concluded—ACQ 8000 in 2008 and ACQ in 2009. This report summarises the main outcome of the ceramic, palaeobotanical and zooarchaeological analyses conducted on the material from ACQ 10000 in 2009.

1 The sites are roughly a kilometre east of the modern fountain from which the locality is named, in fields below the strada comunale which leads around the shoulder of Monte Pallano through the woods, from Tornareccio to Sambuceto and Bomba, via Fonte di Fontecampana. Elevation is about 600 masl.

ACQ 10000 (NW)

Excavations SE of ACQ 8000 revealed structural remains and associated features dating from the Republican to the late Roman periods (Figure 1). Despite deep ploughing of the area, a series of intersecting stone walls attest three distinct phases of construction within an area of c. 85 m² excavated during 2002, 2006, 2007, and 2009. Of these phases, the earliest and latest are preserved only minimally and without any clearly associated contexts intact. The middle phase, however, comprises three sides of a rectangular building cut back into the underlying natural marl and the cultural deposits that represent its collapse and infill. The three preserved walls delineate a leveled interior space that measures c. 5 x 10 m and into this working surface have been cut at least five pits, ranging between 0.80-1.40 m in diameter and 0.40-0.50 m in depth. A well-constructed shallow basin of cocciopesto, c. 2 x 3 m, was built into the northeast corner of the structure on a foundation of mortar and roughly squared stone cobbles (Figure 2). Filling this structure were large quantities of

Figure 1. Acquachiara trench 10000, general view after excavation.
rubble, degraded building debris, and a tile fall signifying the collapsed roof. The sum of these remains suggests an outbuilding of broadly agricultural or industrial use, probably a multi-functional space used for a variety of tasks. The purpose of the *cocciopesto* feature remains somewhat obscure, though one possibility is the processing of wool, supported circumstantially by a large accumulation of loom weights found in the overlying fill and perhaps derived from an upper storey (Figure 3). The various pits may have held *dolia* (fragments of which were scattered across the floor) and/or been used to collect run-off from the *cocciopesto* basin (Figure 4). Despite the fact no other preserved architecture has been discovered in the vicinity, the structure would almost certainly have adjoined a larger complex of buildings, possibly a *villa rustica*. This hypothesis is supported by the presence in secondary context of fine table wares, and unexpectedly elaborate artifacts such as a glass paste ring (Figure 5), marble statuary fragment, fine glassware, and a mosaic *tessera*.

**Pottery Assemblage ACQ 10000 (KPS)**

The main phases of activity date from the first to the early second century A.D., with some residual material dating to the 1st century BC. ITS indicates more-or-less continuous activity throughout the 1st century A.D. into the early 2nd century; hemispherical cups of the Conspectus 34 type in a poor-quality but distinctive fabric are particularly common (examples are also known from Iuvanum). ARS is represented by a few fragments dating to the first half of the 2nd century A.D. *Dolia* fragments with inscribed numerals (17.5 — a measure of volume?) point to the standardization of measures and links with wider distribution networks directly attested by amphorae and fine wares. There is a strikingly high frequency of extra-regional cooking wares, which represent perhaps as much as 20% of the sample, identified by their fabrics. The overall picture is one of a site with significant and sustained access to extra-regional products during the early Roman period. Late Roman deposits post-dating the 4th, and more likely to be 5th or 6th, century AD, are indicated by two late Roman transport amphorae (Figure 6), significant within the small assemblage and indicating that the area continued to engage with Adriatic maritime networks during this period.

**Paleoethnobotanical work at ACQ 10000 (CPS)**

Paleoethnobotanical sampling of ACQ10000 was conducted during the 2009 excavations, and laboratory analy-
Figure 3. Acquachiara trench 10000, loomweight.s

Figure 4. Acquachiara trench 10000, drainage of cocciopesto basin into pit.

Figure 5. Acquachiara trench 10000, glass-paste ring from cocciopesto basin.
sis of plant remains took place at the Paleoethnobotanical Laboratory at Boston University. Ongoing analysis of the samples from ACQ 10000 have revealed interesting patterns of plant consumption and use that demonstrate effective and efficient use of the local mountain landscape.

The assemblage in ACQ 10000 probably represents remains from a special use area rather than an accumulation of refuse from daily consumption. The upper strata (the infill and tile fall) contained only a few poorly preserved cereal grains (emmer wheat and barley) and weed seeds, but below the fill a series of pits were encountered. While investigation is on-going, it is so far apparent that several of these pits contain the carbonized remains of fruit: whole carbonized grapes, fragmentary plum pits, and pieces of whole carbonized figs. The pits do not appear to contain any plant food remains other than fruit. One possible explanation for these relatively pure deposits of fruit, as well as the fact that the fruits appear to have been carbonized whole, would be fruit drying activities for the sake of preservation.

2 Shelton 2009.

Faunal Analysis, ACQ 10000 (MM)

Faunal remains collected from archaeological sites provide important information about the role and use of animals in ancient cultures. The bones retrieved from Acquachiara largely represent food and animal processing waste that was overlooked or pushed aside during any cleaning of occupation floors, or haphazard rubbish that might accumulate in areas during episodes of construction, destruction or abandonment. Currently, over 600 bone specimens have been identified to species and element, from a total of over 2000 fragments collected. Cattle, sheep/goat, and pig bones are represented in fairly equal numbers across Republican contexts at the site, which suggests a mixed economy incorporating sheep and goat pastoralism, the keeping of some cattle, probably as plough and work animals, and some measure of pig herding. Size estimates correlate with general parameters of Republican farm livestock elsewhere in Italy. Relative frequencies of sheep/goat, pig, and domestic fowl increase considerably among imperial contexts, presumably due to greater Roman dietary influence, favouring pork, in the area. Each taxon is represented by numerous elements, from all parts
of the skeleton, as well as by a range of ages, from young (including juvenile/fetal in the case of pig) through to adult. The impression is that these three taxa provided the bulk of the meat for the site during imperial times. These animals seem to have been raised, butchered, and consumed on site (as opposed to any import of meat), a situation expected on many Roman farms. The wide range of ages represented for sheep/goat, pig and domestic fowl further implies local production, but also suggests a scheme wherein at least some animals were raised on site all year round. This is important for sheep and goats particularly, since it layers a second component of local, year-round stock management, on top of larger schemes of transhumance that arguably also occurred in the area.

**Analysis of Lipids Extracted from the Mortar Basin in ACQ 10000 (MM and TF)**

Two samples from the mortar basin in ACQ 10000 were analyzed. Exterior surfaces were ground off to remove any contaminants, then samples were crushed and absorbed lipid residues were extracted with organic solvents. The lipid residue was analyzed using gas chromatography (GC), high temperature GC (HT-GC) and high temperature gas chromatography with mass spectrometry (HT-GC/MS). The residue was identified on the basis of fatty acid decomposition patterns of experimental residues, lipid distribution patterns and through the presence of biomarkers.

The fatty acid composition of the residue extracted from the periphery of the mortar basin, 10SK 1, was very similar to that from the stained central portion, residue 10SK 2. Both residues were characterized by very high levels of C18:1 isomers, exceeding 60%, which is consistent with the processing of high fat seeds or nuts or the rendered fat from animals other than large herbivores. The level of C18:0 is extremely low, which suggests the residues are of plant origin. Levels of 18:2 in these residues are also elevated, about 9%, which is another feature of plant residues.

Sterols in the residues suggest both plant and animal products were processed. Both the animal sterol cholesterol and the plant sterols stigmasterol and β-sitosterol were detected using HT-GC/MS. In addition, the biomarker dehydroabietic acid was detected, which confirms the presence of conifer products.

The lipid analyses are consonant with the evidence noted in both the faunal and botanical assemblages. In both late Republican and early Imperial contexts, horn cores of adult cattle were found, possibly relating to work associated with hide working. The early Imperial horn core shows traces of butchery, a saw cut at its base. This is common in horn removal (so as to preserve the horn core intact – to slide it off easily) and again may relate to some sort of hide- (or at least horn-) working procedure. Pits found in the vicinity of the basin contained the carbonized remains of fruit: whole carbonized grapes, fragmentary plum pits, and pieces of whole carbonized figs, possibly the remains of fruit drying activities.

**Conclusions (EB, SK)**

Excavations at Monte Pallano have already revealed occupation in the main saddle in the late Hellenistic and early Roman imperial periods. The discoveries at Acquachiara in ACQ 10000 add to our evidence for Roman imperial occupation in the hinterland of Monte Pallano, and suggest that this continued for much longer than occupation of the central place on the mountain itself. Our work at Acquachiara is suggestive about ways in which we might refine the data generated by the phase I Sangro Valley Project between 1994 and 1998, and more recently, through our phase II surface survey. The dots on the map of the surface survey now begin to take on consistency and character, and we have enough detail to permit us to speculate in an informed way on agricultural and pastoral regimes, and on diet, in not one but two historical periods. The ceramic assemblages point to extensive interregional contacts, part of it in the form of commoditised exchange, in the Roman period. While more analysis remains to be done, our work shows clear evidence for the continuity, variety and complexity in the exploitation of the countryside in this area of Abruzzo across time.

Edward Bispham, University of Oxford
Susan Kane, Oberlin College
Michael MacKinnon, University of Winnipeg
Mary Malaney and Timothy Figol, Brandon University
China Shelton, Boston University
Keith Swift, University of Austin, Texas
Nicholas P. Wolff, Boston University

3 Faustoferri et al. 2005; Kane 2006; Faustoferri 2008.
4 Faustoferri & Lloyd, 1999; Bispham et al. 2008; Sterry forthcoming.
References


