

Sangro Valley Project: Report on the 2007 Season

Introduction

The Sangro Valley Project this year continued its excavations at Acquachiara (see 2004-2006 season reports). Two trenches were reopened: ACQ 8000 and ACQ 10000. The objectives of the excavations were (a) to obtain further environmental samples; (b) to further investigate the extent and the phasing of the ancient structures and horizons identified between 2002 and 2006; (c) to explore their continuation in adjacent fields.

In ACQ 8000 (begun 2004—interpreted as an outdoor area associated with agricultural processing), the excavations continued where the previous year's had left off, although the trench was extended downslope to the south, revealing (as suspected) the remains of a substantial terracing feature below the *contraterra* identified in 2006. Excavation of this unit can now be regarded as complete, and a firm chronology covering two phases has emerged. The 'circular feature', the *contraterra* and terracing all belong very close together in time in a tight sequence of stratigraphic events; the date for these, on the basis of C-14 dates from the 'circular feature' seems to be early sixth century B.C. It is this horizon which is associated with the predominance of bitter vetch (*vicia ervilia*) samples in the environmental record (the ubiquity of this taxon is so far unique in Iron Age contexts from Samnium); with this phase we can probably associate the four terracotta posts fixed into an early floor surface (with concentrations of ash and charcoal) as a cooking stand (cf. C. Sheffer, *Cooking and cooking stands in Italy, 1400-400 B.C., Acquarossa, vol. 2* (1981)). With a second, later, phase is associated the large area of thick beaten clay flooring overlying large areas of the trench; this in fact proved to be more a series of levelling, flooring and patching activities, than a single construction act. While pottery from the associate contexts remains to be analysed, the presence of mid-sixth century 'Etrusco-Corinthian' fine-wares, and the absence of any material later than the fifth century seems to suggest that this area went out of use in the fifth century B.C. In this phase wheat processing may have been a major activity in this area in summer/early autumn. Study of the finds and the pottery can now proceed with a view to publication.

In a neighbouring field a number of evaluation trenches (area G) were sunk to see whether the area of ACQ 8000 extended further to the west than the limits of the trench itself. While no levels comparable to those found in 8000 were found, or at least none survived, a vertical cut in the flysch bedrock was found, about a metre across and over a metre deep; this was filled, but not tightly packed, with

rocks and large fragments of Iron Age pottery, but nothing later. Such a ditch might demarcate settlement areas, but the nature and consistency of the fill suggests rather a function associated with drainage of the upslope areas; the anthropogenic material from the fill is consistent with an Iron Age occupation, and suggests that this ditch / drain formed part of the wider settlement/land-use complex of which ACQ 8000 was a part.

In ACQ 10000 (begun as ACQ 7000 in 2002, ACQ 10000 since 2006) we were able to identify two further walls of the 'Roman farm-building', bringing to total to three (we also found a tile-spill from the roof; the thickness of the northern wall now raises the possibility that the wall found in 2006 is not an external, load-bearing wall, as then thought, but perhaps an internal wall of a larger building subdivided into a number of rooms. Carefully packed against the northern wall was found one corner of a shallow *cocciopesto* basin, still in situ but of unknown extent. Its implantation seems to be coeval with the construction of the building, which we are now confident in placing in the Augustan period. This discovery reinforces the working hypothesis that this building, whatever its size, served as a venue for the processing of agricultural produce, although the nature of this is yet to be ascertained. There is clearly further work to do at this site.

At the conclusion of the 2007 season, we now have a phasing for our archaic agricultural complex, and a better idea of its size. As mentioned before, this type of archaeological situation is unparalleled in Samnium so far. We hope to bring it to publication as soon as possible. The known dates of occupation now mesh nicely with those of the nearby cemetery at Colle Archiano. The continuity in the landscape in terms of exploitation (but not necessarily of crops grown) between the archaic and early Roman imperial periods is striking (as is the persistent lack of evidence for Hellenistic occupation, but not activity); earlier reports have argued that the Roman period saw the integration of production from this area into a system of commoditised exchange at regional or supra-regional level: an important question remaining to be answered is: selling what?

Further survey work (such as conducted in the Torrente Butino valley in 2008—see report by T. Leppard in Archive) may help to answer these issues.

Acknowledgements

The Project is happy to record its sincere thanks to the Craven Committee of Oxford University and Oberlin College for their support of our project. Also our great

appreciation to the Soprintendenza Archeologica per Abruzzo, especially to Amalia Faustoferri, Silvano Agostini and Sabatino Letta; and to the Sindaci and Comuni of Tornareccio and Atesa.

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Acquachiara Trench 8000: Interim Report

Objectives

The primary objective for the 2007 season was to gain a better understanding of the site formation and archaeological deposits within Trench 8000.

Paleoethnobotanical work by China Shelton of Boston University continued in the 2007 season (see her 2005 and 2006 reports in the Archive). The environment results from the 2006 season were fed back into the sampling strategy for 2007 with samples from high potential contexts being further targeted as well as new contexts. The identification of targets areas was based on the results of her previous seasons work. Numerous samples were taken and processed. The results of this work have proved invaluable for the interpretation of Trench 10000.

A general geomorphological study of the landscape around T8000 was undertaken by Scott Pike to provide the excavation team with a better understanding of the geology of the area and how it might relate to archaeological activity in the area.

Introduction

The area of Trench 8000 was slightly reduced from the 2005 and 2006 seasons. The northern extent of the trench was reduced, so that the northern baulk was located three meters to the south of the previous line. The trench was approximately 15m x 4m, the long axis aligned south-west to north-east. The south-western edge of the trench was expanded south into another 7x5 area. A number of 2006 sondages were reopened A, B, D, F and J. In addition sondages G, H, K, L were also opened.



Fig 1: View from Trench 8000 at Acquachiara

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Strategy and Methodology

Trench 8000 was re-opened by a mechanical excavator with a toothless bucket. All remaining backfill was removed by hand. Since this was the last season of investigation in this trench, a number of unexcavated contexts identified in previous seasons were more fully investigated and tied into the stratigraphic sequence. New sondages were placed in largely unexcavated areas of the trench were placed to investigate the stratigraphy.

In order to facilitate planning a “L” shaped base-line was established, with a segment running west to east in the upper portion of the trench, and a segment running north to south in the 7x5 extension. These lines met at a zero point just west of the working surface. All measurements, planning, small finds etc were taken from the baseline.

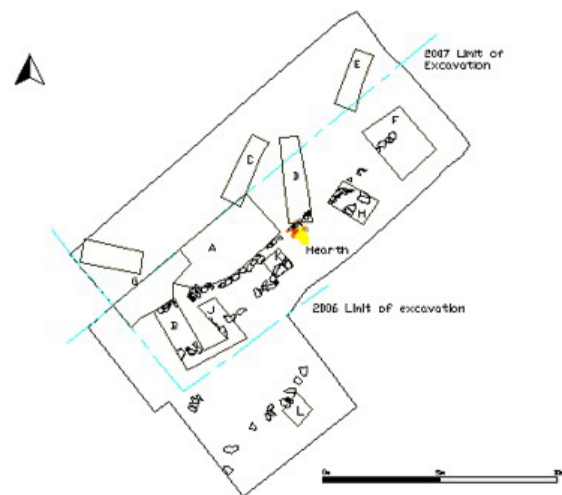


Fig 2: Trench 8000 Site Plan



Fig 3: Trench 8000 Aerial Photograph from Balloon.
Photo by Mauro Vitale

Eastern Area Sondage F

As in 2006, the extent of the yellowish surface layer (8061) in the eastern portion of the trench was investigated. This exploration was conducted in two primary areas. Initially, Sondage F was extended to the east up to the trench baulk in order to further expose the relationship between the layer of rubble present in the centre of the sondage (8058), the yellow floor (8061), and the darker yellowish gray context in the southern portion of the trench (8061). This excavation further reinforced the idea that despite the variation in the shade of the surface material, the yellowish context north of (8058) in sondage F and the yellowish-gray material south of (8058) represented a single event, and therefore will retain the same context number.

This extension revealed that as the yellowish portion of (8061) found in the northern portion of the sondage extended east, its depth increased. In order to further determine the relationship between (8061) and earlier contexts, subsequent excavation was focused on the northern portion of sondage F. This was the area where (8065) another possible flooring level was best preserved. Although the 2006 trench notebook suggested that (8052) was the last level excavated in this portion of the sondage, the 2007 excavators noticed no differentiation between dark soils under (8061) either in section or while digging; therefore, the dark layer directly under (8061) was assigned

the number (8065). After determining the shift in depth of (8061), the sondage was further excavated in the hope of reaching natural. However, after excavating (8041), a layer which was found two contexts above natural elsewhere in the trench, a dark brown silt with pottery inclusions was identified. This context was designated (8081), below which (8082), dark brown compact clay with rock and pottery inclusions was uncovered. Despite the fact that (8083) the context below this contained significantly fewer stones and smaller pieces of pottery, the high level of charcoal inclusions and the continued appearance of small shards of pottery suggests that natural was not uncovered



Fig 4: Looking west over sondages F in foreground and H behind. Working surface 8061 (the lighter material)

in this area and that the stratigraphic sequence of this portion of the trench is dissimilar from the other areas excavated this season. Unfortunately due to time constraints the investigation to natural in this area was not possible, as its proximity to the bottom of the upper terrace had allowed a greater depth of material to gather.

Sondage H (Fig 4) was cut to extend across (8021) into a portion of (8061) in order to determine whether or not (8061) extended under the grayish brown context to its west (8021). It was apparent at an early stage that (8061) did not extend under (8021). Further excavation of the sondage uncovered more rubble (8058) and also an extension of (8014), the contraterra wall found elsewhere in the trench. This illustrated that (8014) extended in a line across the trench with the rubble (8058) to the south. The sondage was excavated until it reached natural.

Western Area

In the western portion of the trench, the primary aim was to connect or extend existing sondages in order to clarify the relationships between contexts visible in section. A cut sondage J was made between sondage B, excavated in 2005, and a slot to the south east of the working area: excavated in 2006. The cut demonstrated that (8015), which was labelled as the uppermost context in sondage B, Fig 6, actually extended into the eastern facing section of sondage J. The rubble layer (8058), found throughout the trench, was also found in both trenches, under (8015) in both, and above (8070) and natural in sondage J.

The area directly to the west of the working area west (8015) was also of interest, as its excavation had the potential to clarify the relationship between the terrace (8014) and the surrounding contexts. The area was excavated by



Fig 5: Sondage B Context 8015

extending the portion of sondage G left uncovered by the northern baulk of the trench along the western edge of the working surface and into the northern portion of sondage B. This indicated that (8043), a layer of compact brown clay with a large quantity of stone and pottery inclusions, extended to the west of the working surface in both the cut and in sondage B. Examination of the southern portion of sondage B suggests that (8043) is not the only context visible on the floor of sondage B as (8058) exists in the southern portion.

The remainder of the working surface was excavated to natural, with the same stratigraphic sequence evident as in previous years with the yellow layer (8012) above (8041) a layer associated with extremely large quantities of impasto pottery (Fig 8). In this area (8041) is above (8046) and had fewer large pieces of pottery and more stones.



Fig 6: Sondages A, B & J A is in the foreground with J and B to the left and right respectively. The contraterra is running east/west



Fig 7: Sondage A context 8041 containing significant amounts of pottery and broken dolia

As is noted elsewhere, the context (8046) is located above natural. The excavation of the working surface in conjunction with the cut made between sondages G and B indicated that the working surface is built into the upper portion of the terrace (8014), with the curve of the stones in the eastern most portion of this context forming the western curve of the working terrace.

The context (8058) was also explored in the western portion of the trench through the excavation of a 1m x 1m sondage, K (Fig 9). This sondage indicated that, as in sondage H, (8058) sits above (8046) and natural. However in sondage K, (8041), the layer characterized by small rocks found above (8046) in the area just east of the western working surface, was also uncovered. However it appears only in the northern section of the sondage, sloping down through the rocks from above. This sequence of contexts is seen in sondage J. In this area the floor of the sondage is (8046), above which is (8041), which is overlain by a darker brown clay with charcoal inclusions (8059) and (8054), a dark brown compact clay with bone and pottery inclusions.

The impasto posts first noted and partially excavated in 2005 were again investigated this season. The first post, which was removed in 2005 (Figs 9 and 10), was placed directly onto the densely packed terrace rubble (8058), structurally the most stable of the layers in the trench. The difficulties encountered in excavating and removing the post in 2005 demonstrated that the Field School was not suitably equipped to undertake this task. Consequently Isabella Pierige', Conservator from the Soprintendenza's regional office in Chieti agreed to remove the best preserved post. Her excavation of the area initially revealed that the westernmost of the three remaining blocks was set into mortar associated with (8014) (figs 9 and 10).



Fig 8: Hearth 8022 and Sondage K to the left

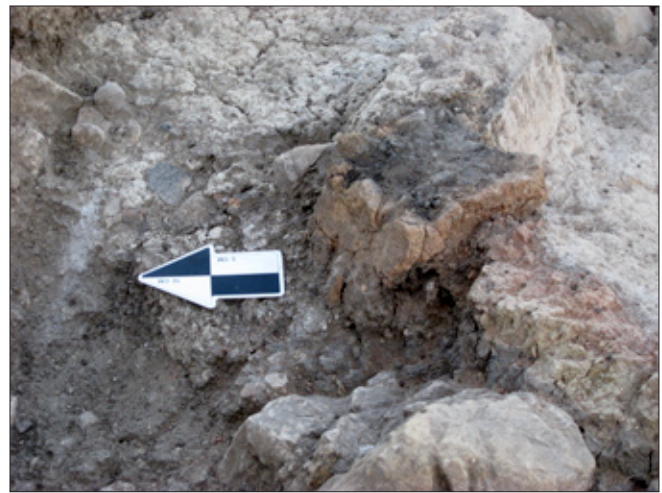


Fig 9: Impasto post set within the hearth context 8022



Fig 10: Hearth showing the remaining impasto posts top left and right

It is worth noting that this post appears to be the best preserved of the three. The easternmost post is set into the slope and on top of (8058).

As it is the most exposed, and farthest down the slope, it would be most likely to slip. The post is set into an elongated triangle of what appears to be mortar, with the thinnest point of the triangle extending down the slope to provide stability. The last excavated post, to the south of that removed by the conservator, is also set into mortar and on top of (8058).

Further excavation in the area revealed large amounts of charcoal and ash as well as a layer of white mortar bracing the two southern posts against the slope. Between these two posts was found line of badly degraded impasto of uncertain function (Figs 9 and 10). Despite the uncertainty regarding the impasto line it is clear that the area contains evidence of the effects of high temperatures on the clay surface. The four posts are likely a cooking stand.

Environmental sampling within this area identified large amounts of charcoal. Although only 10 litres of material was available for sampling 14 grains of wheat were recovered and a number of unidentified cereal fragments are likely to represent further cereal fragments. Interestingly this context did not contain any bitter vetch but did have a number of in situ grape seeds and a high amount of charcoal indicating in situ burning. This area was originally believed to represent another of the posts, and when this idea was dismissed, for a time it was thought that there were only three posts. It was only on the last day of excavation that the fourth post was uncovered. The excavation of the area between the two southern posts revealed more white mortar set in a semi-circle opening to the south, into the slope of the area.

The 7x5 Extension

The initial cleaning of the 7x5 extension revealed a series of large stones set in a rough line surrounded both to the



Fig 11: Opening up of the extension by machine



Fig 12: Work within the extension, the lower terrace is visible running north south in the picture

north and to the south by a layer of rubble (8074). The primary objective in this area was to determine the relationship between these areas.

The larger stones of the lower terrace are visible Sondage L, 1m x 3m, was cut through (8071), grayish brown compact clay visible in the northern portion of the extension, (8074) and a portion of the line of large stones. Excavation indicated that (8071) sits above (8074). In section, it was evident that the large stones were approximately level with the rubble surrounding them, suggesting that they are part of the same event. It was concluded that this may represent the formation of another terrace.

Discussion

At present only the environmental evidence has been processed and we await the ceramic information. We do however have a number of questions regarding the development of the site. What is the relationship of the western and eastern areas? Did they exist at the same time or was one earlier than the other? Was 8012 connected with an earlier phase, characterized in the environmental record by the presence of bitter vetch? And are the samples containing more cereal grains in the eastern area connected with a later period of activity? The environmental evidence suggests that there was some agricultural activity and habitation before the construction of the terraces with the presence of buried soil. However it is low level and as such is suggestive of an area peripheral to the actual activity occurring in the locality. Interestingly the only instance of an olive pit occurs within this pre-terrace landscape.

The terrace deposits are thought to represent transported midden deposits from nearby habitation, as yet unlocated. The environmental results indicate that there are material differences in the terrace construction. The fill of the terrace in the western half of the trench has significantly more ceramic material than that in the east. This



Fig 13: Planning in Sondage L

differentiation between the areas is further underscored by the environmental material from the terrace deposits. The samples taken from the centre of the trench were richer in plant and fruit remains than anywhere else. These included numerous bitter vetch seeds, grape seeds and also the only fig seed within the excavation. The presence of grapes however is thought to represent grape consumption but not viticulture.

The material from the construction of the middle terrace is similar to that of the disuse of the upper terrace and the plant material suggests that the two terraces were constructed at approximately the same time and used material from the same source. The environmental study identified a spatial variation which suggests that there was a differential flow of material after the terrace went out of use. Interestingly the colluvium contained more paleoethnobotanical material than expected however this occurred over the richer deposits associated with the use of the terraces.

The context (8061) (fig 14) which exists throughout the western excavation area may represent the remains of a working surface that was used and repaired over time. It is unlikely that the visible surface represents only one event. The excavations identified areas of patching and this could account for the inconsistencies in the colour and content of 8061.

The fragmentary nature of 8061 could also be a result of modern agricultural practices as the depth of subsoil and topsoil cover within the site is variable. It could also explain why there are small patches of yellow clay that seem similar in appearance in several areas around the trench that are not actually linked to each other. It also seems likely that the yellow layer initially covering the working surface west of (8012) should be considered part of these events, even though they are not linked stratigraphically. It is hoped that the palaeoenvironmental investigations

will provide results to help with the characterisation and phasing of these two areas.

Middle Terrace (Figs 3, 15, 16)

Further excavation in sondages F, H, and K suggested that the context (8014) is the upper edge of a terrace as has been indicated in previous end of season interim reports. It is clear that the contraterra wall extends from the eastern side of the western working surface through sondages D, H, and F. The placement of the terrace corresponds directly with the break in slope in the area. It appears that the upper portion of the terrace (8014) is wedged against a rubble layer that sits below it. The terrace is then braced by larger stones at its southern edge. (8058) seems to have been placed deliberately to the south of the wall portion of the terrace, extending down into (8046), the context above natural. The positioning of the rocks in sondage H suggests that they were packed deliberately, with smaller rocks wedged around larger ones. It should also be noted that (8041), a layer of small rubble which overlies 8046 in the areas excavated this season is found primarily north of the terrace, appearing briefly in the northern section of sondage K, below the rubble layer. (Fig 16)



Fig 14: The eastern end of T8000 showing sondages F, H, D, A and surface 8061 (the lighter material on the left)



Fig 15: Sondage H



Fig 16: Sondage K

“Circular Feature”: now working surface west, Sondage A (Figs 17,18, 19)

This season’s excavations suggested that the “circular feature” of previous seasons was actually the survival of an area of working surface set into the blocks that form the northern portion of the terrace wall. In conclusion, the 2007 excavations identified that the “circular feature” was neither circular nor a feature in the traditional sense. If we believe that the terrace is the most stable of all the areas in the trench; then this would suggest that the function of the circular working surface was related to its position in the most stable area of the trench. The surface seems



Fig 17: Sondage A in 2004



Fig 18: Sondage A in 2005



Fig 19: Sondage A in 2004, 2005 and during excavation in 2007

to have been formed after the terrace, with (8041) and (8058) used to support it. It also appears that in (8046) the bottom portion of the terrace was lined with small stones to further support it and add to the structural integrity. It is difficult at present to discuss the relative timescale between the construction of the terrace and the formation of the working surface. It is hoped that the further study of the artefactual material recovered from the terrace contexts may help to address this question.

The Cooking Stand Posts (Figs. 9, 10, 20)

Investigations in 2005 identified three impasto posts and this year a fourth post was found, all set in a circle within the working surface. The posts are likely part of a cooking stand as can be seen at other Archaic Italian sites such as Acquarossa (cf. C. Sheffer, *Cooking and cooking stands in Italy, 1400-400 B.C., Acquarossa, vol. 2* (1981)). The posts themselves suggest that whatever was being heated was possibly relatively heavy as they are wider at the base than at the top, indicating that they could bear some weight and were intended to be stable. The tops of the posts are slightly higher on their outer edges than their inner ones, so it seems likely that they were shaped to accommodate a curved object such as a pot. The presence of large amounts of degraded charcoal and ash suggested that the area was used for repeated burnings.

As elsewhere on the site, the positioning of this feature suggests its builders had a practical understanding of the natural processes of the area. The posts were set in such a way as to avoid slippage down the slope. The first post (which was removed in 2005, see fig 21 inset) was placed directly onto the densely packed terrace rubble. (8058). The last excavated post, to the south was set into mortar and on top of rubble (8058). It was also partially protected by (8014) and was not as exposed to the slope as



Fig 20: Hearth during excavation and (inset) detail of impasto post

the eastern post. There is also mortar set into the stones of (8014) on the western side of the hearth. The environmental evidence indicates that this area is distinctive and that the posts were constructed as a stand for the processing or cooking of food. The deposits associated with this area contain a higher proportion of cereal grains and a denser concentration of charcoal.

The environmental evidence tantalisingly hints of possible food processing within the nearby area with the recovery of emmer wheat seeds, chaff and fragments of quern stone. It also indicates that the predominant remains are that of bitter vetch, a crop associated with marginal agricultural regimes or with fodder production for animals. The absence of plausible post-holes and the paucity of daub suggest that this was an outside area, delimited from the surrounding fields by a low wall and a terrace.

The Southern Terrace (Figs 3, 12)

The series of stones visible in the 7x5 extension are uncharacteristically large for the site, but seem to correspond to the stones that make up a polygonal wall at the same elevation in the woods. (Fig. 22) The sections in sondage L suggest that the larger rocks sit on top of the smaller ones. There is clear evidence to suggest that the large rocks form a wall. It is most likely that this area represents the formation of another terrace similar to that to the north, possibly the stones reused from a masonry structure in the vicinity. The larger stones as above seem to be set at intervals as the slope breaks to arrest downward movement. As above, the terrace follows the natural slope. The lower terrace contained very different material; the environmental study suggests that this terrace may not have co-existed with the upper one, or that the two terraces were constructed for different functions.



Fig. 22: Polygonal wall in woods nearby



Fig 23: Balloon photography by Mauro Vitale



Fig 24: Trench supervisors (Christina Triantafyllou, Neville McFerrin, and Andrea Canini)

Conclusions

Excavations in Trench 8000 can now be regarded as complete, and a firm chronology covering two phases has emerged. The 'circular feature', the contraterra and terracing all belong very close together in time in a tight sequence of stratigraphic events; the date for these, on the basis of C-14 dates from the 'circular feature' seems to be early sixth century B.C.. This appears to be a rare agricultural processing site of archaic (6th century) date. It is this horizon which is associated with the predominance of bitter vetch (*vicia ervilia*) samples in the environmental record (the ubiquity of this taxon is so far unique in Iron Age contexts from Samnium); with this phase we can probably associate the terracotta cooking stand fixed into an early floor surface. With a second, later, phase is associated the large area of thick beaten clay flooring overlying large areas of the trench; this in fact proved to be more a

series of levelling, flooring and patching activities, than a single construction act. While pottery from the associate contexts remains to be analysed, the presence of mid-sixth century 'Etrusco-Corinthian' fine-wares, and the absence of any material later than the fifth century seems to suggest that this area went out of use in the fifth century B.C. In this phase wheat processing may have been a major activity in this area in summer/early autumn. Study of the finds and the pottery can now proceed with a view to publication.

Trench 8000 will add substantially to discussion of the nature of rural settlement and its development across

time, which is still poorly understood in the Abruzzo. The archaeobotanical and faunal evidence from both sites is suggestive both of correlation with wider known trends and of an unusual diversity of cultivars being processed.

The 2007 Acquachiara Trench 8000- Interim Report was written by Lesley-Ann Mather (Field Director) using the contributions of the Acquachiara site supervisors (Christina Triantafillou, Neville McFerrin, and Andrea Canini) as well as the analyses of China Shelton. The SVP is indebted to Isabella Pierige' of the Soprintendenza per i Beni Archeologici dell'Abruzzo in Chieti for the excavation and consolidation of the impasto post in 2007.