San Vincenzo al Volturno 
and the Origins of the Medieval Pottery Industry in Italy

Richard Hodges* and Helen Patterson*

Abstract. Pottery is the archaeological script of the Middle Ages. However, it has to be treated systematically if it is to be used as an effective source for the medieval historian. In this paper I wish to review recent research in ceramic methodology, and to outline its implications for the history of the early medieval period. In particular, as archaeological investigations in medieval Italy develop I wish to draw attention to certain objectives and problems that, from a theoretical and historical point of view, need to be kept clearly in mind.

I shall begin by briefly reviewing the central issues of the earlier medieval period to which a study of pottery can make a significant contribution. I then wish to examine the central tenets of historical archaeology, and to briefly illustrate how recent theoretical work enables us to approach the issues of medieval chronology, settlement systems, production-distribution systems and cognitive systems from a new standpoint. I shall attempt to illustrate these issues drawing upon examples from Italy, the Mediterranean and north-west Europe. For example, I wish to reconsider the chronology of red-painted and glazed wares in the light of recent research in Italy. I wish to briefly consider the emergence of specialized production centres and their significance. I shall outline some of the new evidence of production-distribution systems in early medieval Italy in the light of the excavations at San Vincenzo al Volturno, and I shall endeavour to place this in a Mediterranean and European context. Lastly I wish to consider the cultural aspects of pottery form and design in Italy and western Europe generally between the world of late antiquity and the post-carolingian communities.

Much of this paper will examine approaches to medieval pottery that have proved to be valuable north of the Alps. The author also hopes to draw attention to some theoretical and historical problems which must be discussed as the ceramic data-base in Italy begins to grow and the potential of this new medieval script is appreciated.

Introduction

The transition from the classical world to the nation states of the middle ages remains a matter of great controversy. Did the Roman state collapse entirely, much as we imagine might result from a holocaust in our age, or did it somehow give birth without interruption to the medieval society well-known from texts of the 10th century and later? It is a debate about continuity or change. The historical documentation tends to emphasize continuity; chroniclers tend to see events slowly unfolding rather than suddenly occuring. Archaeology, by contrast, examines time-slices that are most appropriate to studying the passing of generations rather than the passing of years. Archaeology emphatically indicates a major change in the direction of west European life during these centuries. In fact, the archaeological evidence provides a measure of circumstances half-understood from the highly personal accounts and spasmodic historical record. It shows that the late Roman state in the west collapsed in the later 6th century, and had disappeared even earlier in old provinces like Bri-

tain (Hodges and Whitehouse, 1983). It reveals the primitive change of circumstances, and at the same time the tremendous depopulation of these centuries. The effects, without doubt, were enormous on society and on the economy as it was practised in these centuries. Excavations all over Europe indicate a period of intense activity in the Carolingian phase, at the end of the 8th century, and the first quarter of the 9th century. After this, following the depredations of the Saracens and Vikings, there was a social explosion. In the 10th and 11th centuries the governments, territories, and landscape of western Europe took shape.

Archaeologists and historians have tended to concentrate on one region, failure to see how the political geography of the period inevitably affected the transition from one set of circumstances to another. Just as in the Roman period, and in our age too, there were inter-regional exchanges of information as well as goods. No-where constituted an island, isolated from the complexities of the age. The analysis of these interactions is often difficult and contentious, yet it necessarily forms a vital part of any historical enquiry. This is never truer than in the case of ceramics.

In this paper we wish to examine the pottery from the recent excavations at San Vincenzo al Volturno, Molise (Fig. 1) in their west European setting. At one level this will enable us to shed some new light on the problem of early medieval pottery in Italy, and at another it consti-
tutes fresh evidence for the debate about whether or not classical technology persisted continuously throughout the Dark Ages.

Excavations at San Vincenzo al Volturno

The archaeology of San Vincenzo al Volturno is enabling us to rethink history. The early medieval benedictine monastery at San Vincenzo al Volturno is well-known from its 12th century Chronicon Vulturnense (Federici, 1925-38), and from several studies by modern scholars (Belting, 1968; Del Treppe, 1954; Parniani, 1980; Wickham in Hodges and Mitchell, 1985). As a centre it matched neighbouring Monte Cassino in importance until the 11th century, but by 1200 its star had fallen, and isolated in a lonely mountain valley it declined to a point of anonymity. Excavations by the University of Sheffield in collaboration with the Soprintendenza Archeologica del Molise between 1980-4 have uncovered a major part of the early medieval settlement, ensuring the place of a new fame. In addition, a survey of its domains in the upper Volturno valley (Fig. 2) makes it possible to put the abbey in its regional context. The results have far-reaching implications.

The excavations at San Vincenzo are now summarized in a large interim report (Hodges and Mitchell, 1985), and will be published in full as soon as is practical. These show the following series of settlements on this site:

Phase 0a: A late samnite community of ill-defined proportions.

Phase 0b: A republican vicus covering about 8-10 ha., on which the monastery was later to be built upon several monumental buildings of early Roman date.

Phase 0c: A large imperial villa was constructed on the opposite side of the river Volturno from the early medieval site, a little to one side (south) of the republican vicus.

Phase 1a: A large late Roman villa lies beneath the early medieval ruins. This complex has been partly excavated. A bridge across the river Volturno survives from this time, to the right of which were two churches. To the left was a large south range, and all of it was dominated by a residential tower. This community inhabited the site for about a century (c.420-c.520) before it was abandoned.

Phase 2: After the abandonment only a funerary church and the graveyard around it continued to be used during the later 6th and 7th centuries.

Phase 3a: The founding fathers of the monastery arrived early in the 8th century and repaired the funerary church and the south range. An altar was constructed in the church, and it became the first San Vincenzo— the abbey church.

Phase 3b: Late in the 8th century San Vincenzo was modified; an ambulatory was added to its apsidal end, and a church was constructed north of it with a triconch-shaped crypt. These are indices of the first Carolingian influences to be felt at San Vincenzo.

Phase 4: Early in the 9th century the tiny 8th century settlement was enlarged to cover 4-5 ha. This was a massive planned settlement with a new abbey church, and with a great number of new industries and quarters. The decorations, of which an enormous amount survives, shows that this was a perfect, if somewhat large expression of a Carolingian renaissance.

Phase 5a: Under abbot Epiphanius (824-42) parts of the monastery were enhanced and enlarged still further. From this period date the well-known paintings in the tiny crypt church (Belting, 1968).

Phase 5b: Minor modifications were made in the mid 9th century, possibly arising from devastating earthquake of AD.847.

Phase 5c: Two traces of the infamous Saracen attack of the 10th October 881 have been found in the excavations. Heavy arrow heads were embedded in a fire layer in the glass workshop south of the abbey church—a layer full of artifacts associated with this craft. Two arrowheads were discovered in a less extensive fire layer in the reception hall of the monastery, close to the entrance.

Phase 6a: The 10th century monastery was a ruined and largely makeshift place, just as the Chronicon records. Evidently few monks lived here at that time, and its status had declined quite dramatically.

Phase 6b: John V (1053-76) ordered the destruction of the ruined Carolingian buildings in order that he might replace them with a new ensemble of ranges. The destruction was quite stupendous.

Phase 7: John V’s new monastery reversed the plan of the previous one. The cloister was to the south of the abbey church, rather than east of it. The previous front entrance now became the back yard. Here was found a small single-flue kiln next to several post-built structures.

Phase 8: Abbot Gerard and his successor Bernard decided to abandon the old site west of the Volturno altogether in the late 11th century. Much influenced by Abbot Desiderius’ new monastery at Monte Cassino, a new abbey was erected 400m. to the east on the edge of the plateau. It was here that the monk, Giovanni, wrote the Chronicon Vulturnense before San Vincenzo passed into oblivion.

This quite staggering sequence is a microcosm of European history in the first millennium AD. Its significance is all the greater when viewed in its regional context. A survey of the upper Volturno valley reveals the dispersed settlement pattern of late samnite, republican and early imperial date. The density of sites before AD.400 (see John Patterson’s paper in Hodges and Mitchell, 1985) is similar to that found in neighbouring Campania as well as
FIG. 1 – Plan of the excavations at San Vincenzo al Volturno.
further south in the Biferno valley (Barker, Lloyd and Webley, 1978). But around AD.400, as elsewhere in Italy, the structure of rural settlement changed dramatically. Far fewer sites belong to the following phase, between AD.400 and c.AD.500. Rural depopulation must have occurred on a scale worthy of the migrations (Hodges and Whitehouse, 1983, chapter 2; Hodges, 1984). The villa at San Vincenzo is a classic expression of a sub-regional centre of this era, as social change was occurring with the diminishing power of state government. In the 6th century AD. the villa was abandoned, and we believe that the hilltop sites were first selected. The dwelling at Vacchereccia, near San Vincenzo (Hodges et al, 1984) and the refuge in the Biferno valley at D85 (Hodges, Barker, and Wade, 1980) belong to this time. There were no sites occupied on the low-lying ground either in the Biferno or Volturino valleys in the subsequent centuries. Excavations at Colle Castellano, towards the southern end of the terra of San Vincenzo, have now revealed a c. 7/8th – 10th century hilltop settlement predating a castello dated by a charter to 962 (see chapter 12 in Hodges and Mitchell, 1985). Indeed change in the regional settlement pattern occurred not when the monastery was at its greatest, but during its rather desperate years in the 10th century. The Chronicon illustrates the changes of this era, and investigations at several villages deserted in the late medieval period tend to bear this out. The pattern is exactly repeated in the Biferno valley where a classic castello of the 10th-12th century was surveyed (Hodges and Wickham, 1981) and where many more late medieval deserted villages have been investigated (Hodges and Wickham in Barker, forthcoming) All in all, the transition from the Roman to the medieval settlement pattern is beginning to come to light, and as Cilento anticipated twenty years ago, it reflects the process of Italian and west European history (Cilento, 1966). In these circumstances it is obviously important to examine the history of pottery production, but before we do let us first consider briefly the history of pottery production north of the Alps and in Byzantine territories.
Early Medieval Pottery North of the Alps

Pottery production north of the Alps in post-Roman times is gradually being documented. In the 5th and 6th century Merovingian territories the volume of pottery probably remained close to that produced in earlier centuries. The number of pottery centres, however, began to drop dramatically by AD.600. Those that have been discovered belonging to the 7th century demonstrate the continuity of Roman techniques, but the prevalence of new forms and new traditions. Late 7th and 8th century production was evidently on a small scale (see Hodges, 1981, chapter 7), focused at small centres where previously there had been extensive industries. Around AD.800, if not a little before, there was a dramatic change to the Rhenish industries. Potters were assembled west of Bonn in the Vorgebirge hills, and began to produce finer wares, in a wider range of forms with new features such as saggings bases. The first pots decorated with red painted lines and motifs date to this time, but failed to become a prominent ornament before the mid to late 9th century (Hodges, 1981, chapter 7). Well-dated levels at Hamwih Saxon Southampton (Hodges, 1981) and at Doresaat at the mouth of the Rhine (Van Es and Verwers, 1980) leave us in no doubt about this sequence.

The industries in France, in Alsace and in north Switzerland, however, were a little slow to adopt the form promoted in the heart of the Carolingian empire and only in the later 9th century were saggings based wares, and red-painted wares made in these centres. Glazed wares do not occur at Hamwih or Doresaat at all, and it seems that their first incidence at Doie La Fontaine, near Tours (De Bouard, 1976), at Tours (Galinski, 1982), and in England at Stamford (Kilmurry, 1980), and elsewhere (Hodges, 1981, chapter 6), occurs no earlier than the third to the last quarter of the 9th century AD., and in some cases is a 10th century development.

Thereafter, in the 10th and 11th centuries, there were no great technological advances or changes in decoration, but the numerous kiln groups and kilns excavated in West Germany, the Netherlands, Belgium and France, as well as England, indicate the increased volume of ceramic production, and the increasing variety of forms made at each centre. Potters were enlarging their clientele and servicing regional communities with all manner of fine, coarse, table and storage wares.

Pottery Production in the East Mediterranean

Pottery production in Byzantine territory is poorly documented at present but a few useful points can be made. There is a well-dated group from the Yassi Ada wreck, which sank in c.625 (Bass, 1982). Hayes has made a valuable study of a 7th century group from Constantinople (1968), and promises to revise it with many more studies. There are the groups of 7th to 8th century date from Dhiorios and other sites in north west Cyprus (Catling, 1972; Catling and Dikigoropolous, 1970). Dhiorios itself is especially interesting as it was a pottery manufacturing centre. Finally, we should mention the group from the wreck at Serce Liman, also excavated by Bass, which is believed to date to the early 11th century (Bass, 1984).

These groups of wares show that pottery production continued to be in the hands of specialist potters throughout the Byzantine period, despite the remarkable contraction of the Byzantine economy (Foss, 1977; Hendy, 1970; Hodges and Whitehouse, 1983, 54-76). The pottery itself suggests that by the 7th century many new forms were being added to the repertoire of classical wares. Casseroles and small amphorae with two strap handles and sagging bases are common; these continue to be predominant in the 11th century Serce Liman assemblage. Pitchers with indented bases, as well as examples with flat bases are also prolific in both periods. Even the ring bases of the 12th-13th century maiolicae found at Corinth (Morgan, 1942; Stillwell Mackay, 1967) owe something to the Early Byzantine forms well illustrated at Yassi Ada in c. 625.

It would seem that the east Mediterranean pottery industries maintained their own technological traditions throughout the Byzantine period, despite importing vast quantities of west Mediterranean fine wares in the 5th and early centuries. The impact of this tradition upon their west Mediterranean colonies, such as southern Italy, remains obscure at present, but must not be summarily dismissed.

The Pottery from San Vincenzo al Volturno and other early medieval sites in Molise

The late Roman and early medieval pottery from San Vincenzo al Volturno is now comparatively well-dated, as we have indicated above. These wares, as a result, can be considered in a wider regional context since several other early medieval sites have been investigated in Molise. These include Vaccereccia, a 6th-12th century village near San Vincenzo (Hodges et al, 1984), Colle Castellano, a 7th/8th century village some 20 Kms. from San Vincenzo (see Hodges and Mitchell, 1985) D85 in the Biferno valley, a 6th-9th century fortified hilltop site, (Hodges, Barker and Wade, 1980), Vetrania, also in the Biferno valley, a 10th-12th century promontory castello (Hodges and Wickham, 1981) and Portacannone, a 10th-15th century village in the Biferno valley abandoned in favour of a safer site after an earthquake (Hodges and Wickham in Barker, forthcoming) (Fig. 3).

The late Roman pottery from San Vincenzo and elsewhere in the upper Volturno valley includes a wide range of wheel-thrown types. A few examples of African Red Slip wares as well as Lucanian red-painted wares are also found at the villa, while the majority of fabrics were probably made near Isernia or Venus, or in Campania. As a group, the material differs significantly from the late Roman pottery of the Biferno valley. The wares from the lower Biferno in particular reflect the strong influence of the Apulian industries with the marked predominance of red-painted wares in the assemblages dating from the 5th-7th centuries (Lloyd and Cann, 1984).

It is evident, however, that with the abandonment of the villa at San Vincenzo the local supplies of wheel-thrown pottery were terminated. In the phase 2 and possibly even in the phase 3 described above, local access to wheel-thrown pottery was restricted. The phase 3 (8th
century) pottery has not been properly examined as yet, but crude imitations of late Roman forms have been found at the hill-slope site of Vaccareccia associated with a 5th-7th century penannular brooch, preceding a phase with 9th century types (Patterson in Hodges et al., 1984). It would appear that the local population no longer had access to wheel-thrown wares and resorted to making their own pots, to begin with imitating Roman flanged dishes and ringfooted forms. The evidence is tenuous, for without good groups from San Vincenzo itself, the sequence is less than secure. Yet we are confident that further south, in the Biferno valley, the late Roman traditions of red-painted and coarse wares continued to be made (Hodges, Barker and Wade, 1980, 89-91). Pin-pointing, however, exactly what are 8th century types sadly eludes us.

The pottery from the 9th and 10th centuries is perhaps one of the most important aspects of the San Vincenzo project. There are wheel-thrown red-painted wares and slow-wheel turned coarse wares in phase 5a deposits, dating to some time before 824-42 (see above). But the group found in a deep destruction deposit arising from the Saracen attack on the glass workshop in 881 is possibly the most impressive (Fig. 4).

This 881 group, of course, reflects the wares in use in the workshop itself, though some fragments also come from the fine living quarters of the glass-worker next door (see Moreland's paper in Hodges and Mitchell, 1985). This group includes several complete pots as well as a complete lathe-turned (sagging-based) *psitra ollare* jar (Fig. 4, no. 6). It enables us to define the 9th century wares at San Vincenzo with some clarity. Essentially, the red-painted wares occur in at least four different fabrics, although one predominates throughout all the phases of the monastery, probably made in the region or Campania. They include trefoil mouth jugs with ovoid bodies and some bowls, all the vessels have quite hard-fired thin walls and sagging bases. Few pitchers occur here, though a number were discovered at D85 where the red-painted pottery clearly originates from an entirely different source. The red-painted pottery at D85, in fact, seems extremely hard-fired, and predominantly of two fabrics, the vessels have both flat and sagging bases. Thin-sections suggest that the silaceous clays were being levigated to achieve finer fabrics that were fired to a higher temperature than their late Roman predecessors. The red-painted pottery from Vaccareccia was too fragmented to analyse succes-
sfully, but the group from Colle Castellano is in much better condition. This includes a predominant type with fine brush-painted ornament (Fig. 5, no. 21-27), one that occurs infrequently at San Vincenzo and is presumably a product of a centre in the neighbourhood of Colle Castellano towards the southern end of terra San Vincenzi.

Green glazed wares occur in minimal numbers at San Vincenzo before 881. The few fragments are definitely
Fig. 5 – Early medieval coarse wares and red painted wares from Colle Castellano.
medieval rather than Roman, but their source is as yet unknown. A single glazed sherd was found at D85 (Hodges, Barker and Wade, 1980, 89), and sherds from Colle Castellano and Vacchereccia must be judged to be of a slightly later, 10th century date if we use the phase 6 evidence from San Vincenzo itself (see below).

At least six types of coarse wares, made on a slow wheel are found at San Vincenzo in the 9th century (Fig. 6, no. 8-15). Thin sectioning has revealed significant differences in the fabrics, showing that the monastery was obtaining its coarse ware from several sources. This picture contrasts markedly with the evidence from Colle Castellano (Fig. 5, no. 1-20), and Vacchereccia where one coarse ware fabric made from local clay overwhelmingly predominates.
Coarse wares represent about 60% of the total ceramic assemblage at San Vincenzo, Vacchereccia, Colle Castellano and D85.

At all these sites the coarse wares tend to imitate the basic features of the finer wheel, thrown forms, with poorly finished strap handles, thin walls unevenly achieved, and with sagging bases. Very few have wirecut flat bases. The range of forms is limited to jars, pitchers, bowls and pans, as at D85 (HODGES, BARKER and WADE, 1980, 89). The coarse wares at Colle Castellano and Vacchereccia are characterized by their coarseness and simplicity of form, only at San Vincenzo is the same range supplemented by some finer thrown coarse wares with some variation of rim form.

It is particularly interesting to find a complete lathe-turned *pietra ollare* jar in the workshop level dated to 881 (Fig. 4, no 6). This vessel has thin walls and a sagging base; it may have been used in the preparation of glass as such vessels were at Torcello (LECJEWICZ, TABACZYNKI and TABACZYNSKA, 1977, 94-104), and at Pavia (BLAKE, 1978, fig. 34 no. 57). A sherd of a similar vessel also occurred at D85, while two fragments were found in the 10-12th century debris at Vetran, (HODGES and WICKHAM, 1981, fig. 3 no. 13) and at Portacannone nearby. Clearly this context provides an important chronological horizon for the inception of lathe-turned *pietra ollare*, superseding the hand-finished thick, flat based jars of late Roman date (MANNONI and MESSIGA, 1980).

The phase 6 (10th century) pottery from San Vincenzo varies little from the phase 5 evidence. There are rather more green glazed vessels. These stem from at least three different sources. All are highly decorated, and one vessel had a spout ornamented with a snake (Fig. 6, no. 16). Nonetheless, these wares represent less than 1% of the pottery assemblage. Similarly, the few fragments from Colle Castellano and Vacchereccia also amount to less than 1% of the assemblage, and seem to suggest individual vessels acquired from different sources. Green-glazed pottery, ho-
however, was not found at Vetranum or at any of the other deserted medieval villages investigated in the Biferno valley.

In the Volturno valley access to red-painted pottery continued much as it had been in the 9th century. But at Vetranum in the Biferno valley we have some evidence that supplies of these wares dried up. Either the kiln was eliminated or there was some political/economic embargo on their distribution. Vetranum had, however, a wider range of coarse ware forms than D85, belonging to the previous century. The local centres, it seems, were adapting to the needs of new castelli at the inception of incastellamento. The growing range of forms is also illustrated at San Vincenzo where larger bowls, larger jars and amphorae are common in the phase 6 deposits associated with the obliteration of the Carolingian monastery between 1053 and 1076. A noticeable number of large well-finished wares were used for industrial purposes as well. It appears that local potters were diversifying their range. Technological changes are more difficult to detect, but the vessels seem to be harder fired than those of the 9th century.

Although we have no documentary record of a pottery industry at San Vincenzo itself, the Chronicon Volturinense mentions a figulis at Cerro in the 10th century (FEDERICI, 1938, II, 310, 2b). In this context, possibly the most interesting discovery of the excavations at San Vincenzo was that of a small pottery kiln (Fig. 7) belonging to the Phase 7 monastery of abbot John V (1053-76). The kiln was a simple affair with an oven chamber constructed of tiles, about 1 metre in diameter, and a single stokehole that had been made of wattle and daub. The kiln was only used twice, and unfortunately its products were not found. Its form is like many known from this period north of the Alps. On balance it may have held up to 200 vessels, to judge from contemporary English examples, that were fired to about 800-900 centigrade. The kiln was evidently abandoned when the monastic community deserted this site in favour of the new location, on the edge of the plateau, in the last quarter of the 11th century. Three fragments of lustre ware found in the stokehole, have been identified as of Egyptian origin, and can be dated to the mid 11th century.

Discussion

The well-dated sequence from San Vincenzo has many implications for pottery studies in Italy. We shall consider a few of these before examining the broader issues of early medieval pottery in the peninsula. First, it is evident that the late Roman production centres servicing the upper Volturno valley between c.400 and 550 disappeared in the turbulent years of the Ostrogothic wars and the Lombardic invasion. These were replaced at the hilltop village of Vaccherecca (HODGES et al., 1984) by pottery made in domestic circumstances similar to other hand-made 6th-7th century wares found in other southern regions (see SALVATORE, 1982, tav. 11, nos. 10, 11, 12). But it is clear from sites found close to the Adriatic in Barker’s Biferno valley survey, that production of mass-produced pottery continued in coastal regions like this until the early 7th century. At D85 for example, there are red-painted and coarse wares which demonstrate specialized output and distribution after the Lombard conquest (HODGES, BARKER, and WADE, 1980). This confirms a pattern found elsewhere in Italy: as the regions became less integrated – as state government faltered in the 6th century – those areas with maritime connections to the Emperor Heraclius’ Byzantine empire continued to exist (HODGES and WHITEHOUSE, 1983). For the coastal areas it was an Indian summer before their eclipse as the Mediterranean economy collapsed altogether c.650. Hence, the evidence from the Adriatic coast in Molise is paralleled by Peduto’s data from Salerno (PEDUTO, 1984, esp. 103-124); similarly look at the last occupation of Luni further north (WARD-PERKINS, 1977; BLAKE, 1977) and also at Torcello (LECIEJEWICZ, TABACZYNSKI and TABACZYNSKA, 1977). All reveal an assemblage characteristic of the latest Roman-period commerce and production, and their demise is testimony to the catastrophe that overtook this world at that time.

We have not yet analysed the 8th century pottery from San Vincenzo, but unfortunately it is small in quantity. We have, however, analysed the pottery associated with the large Carolingian-period complex, including the important group from the workshop attacked in 881 by the Saracens.

It is clear that certain late Roman industries producing wheel-thrown red-painted pottery continued to operate from the 6th to 9th centuries. The local pottery, however, was generally made on a slow wheel. We can conclude therefore, that as in France and Germany, some pottery industries maintained the skill of producing wheel-thrown wares from Roman to Carolingian times. But these were probably few in number.

We can also demonstrate that the red-painted wares were made some distance from San Vincenzo, but where we do not know. About 40% of the pottery at San Vincenzo, and the hilltop settlements at Colle Castellano and D85 (HODGES, BARKER, and WADE, 1980) are red-painted wares. Several centres were servicing Molise, possibly from southern and western Beneventum.

The pottery, however, was made in a limited range of forms, mostly stemming from Roman times, which were imitated by the less skilful local potters. The 9th century pottery differs significantly from the late Roman wares in several respects. One of the most tangible developments which can be observed in the 881 group from San Vincenzo is the predominance of pots with sagging bases.

As we noted when describing the history of pottery in the Carolingian kingdoms, the sagging base is an important index. In fact the sagging base requires a new manufacturing technique. Instead of building the pot up from the wheel with a thick flat base, and wirecutting it off on completion, a sagging base can be formed in a variety of other ways. For example, by the use of a paddle and anvil on the completed pot, or by building the pot to the rim without a base and then inverting the pot to add the base last. Whatever the method used, the appearance of the sagging base denotes a conscious stylistic change by the potter. Sagging bases withstand the thermal shock of fires far better than the wirecut flat bases. The prevalence of wirecut flat bases in Roman times and their demise in the early Middle Ages may reflect, to some degree, changes in culinary customs.

The 881 group contains sagging-based red-painted and coarse wares, though a few vessels with flat bases were also found in this assemblage. We should also draw atten-
tion to a thin-walled, sagging-based *pietra allare* jar found in this deposit as well (Fig. 4, no. 6). *Pietra allare* jars, made in the Alps (Mannoni and Messiga, 1980) were evidently being made on a lathe long before AD. 1000 as was previously believed. Like the switch from flat to sagging-based pots, the equivalent transition in the *pietra allare* industries occurred in Carolingian times. Unfortunately, as yet we do not know whether this switch was rapid as it was in the Rhineland, or gradual as it was in France (Hodges, 1981, 62). Moreover, it is too early to speculate upon the influences which engendered this technological change. Nonetheless, the 881 assemblage is an important index for several reasons.

First, it shows that sagging-based groups of any flat-based wares probably date to after AD. 900 (see for example, Scribba (Gareki and Noye, 1981, 538-544), Alta-villa Silentina (Peduto, 1984), Torcello, (Leciejewicz, Tabaczyńska, and Tabaczyńska, 1977, 47).

Second, it suggests that groups with mixed sagging-based and thin as well as thick flat bases—bases that illustrate experiments with the pottery technology—belong to the late 8th or 9th centuries. It is most unlikely that these pre-date the Carolingian phase by much if at all.

Thus, the technology for producing lathe-turned *pietra allare* jars with sagging bases date to the 9th century also, and must be an index for the future dating of early medieval levels in northern Italy.

Hence, we should soon demonstrate, as is perhaps all to obvious, the dates of certain collections in Italy. But we shall take one that is controversial to illustrate the point. Whitehouse has attempted several times to date the glazed pottery (so-called Forum ware) from the Lacus Iuturnae in Rome (Whitehouse, 1965, 1978, 1980a). The coin hoard suggests a late Roman date (Whitehouse, 1980a), but the incidence of these wares in Rome itself (see Paroli’s papers in this volume) points to an 8th-10th/11th century date. Examination of the forms (Whitehouse, 1978, fig. 29.2) shows that one at least (fig. 29.2, no. 8) has a thick wheel-thrown base; that some have thinner flat bases, to judge from the illustration (fig. 29.2, nos. 6, 9, 10) and that one (fig. 29.2, no. 7) has a sagging base. None of the latter are cheese-wired. The index cited above would see this as a 9th century group. It suggests Forum ware was made in the later 8th century and that its production steadily developed during the 9th and 10th centuries.

The San Vincenzo assemblage, as well as the group from Vaccheraeae, Colle Castellano, D85, and Vetran'a all help us to shed new light on the troublesome issue of glazed pottery. This debate is close to being resolved as Francovich (1983) and Blake (1981) have recently suggested. First, there are two fragments of green-glazed pottery at San Vincenzo in the 881 assemblage. These amount to a vessel or two, a minute percentage of the pottery used in the monastery. One sherd of green glazed pottery was also found at D85 (Hodges, Barker, and Wade, 1980, 89). Molise, evidently was far from the centres in which these wares were produced. However, the glass kiln vividly illustrates, as Blake (1981, 39) anticipates, how the material might have been made (Moreland in Hodges and Mitchell, 1985). Glass was evidently produced in vast quantities, not only for the many new buildings of the often vast Carolingian monasteries, like San Vincenzo, but for making the wall mosaics inside them, as well as, of course, liturgical vessels. Rome itself, must have been the seat of a great glass industry to cope with glazing new churches like S.S. Quattro Coronati and Santa Prassede, and to make the tesserae for mosaics like those used in the San Zeno chapel. Old Roman glass may have been re-used, but to judge from the San Vincenzo kiln many new techniques were also being tried.

Glazed pottery, like the lathe-turned alpine soapstone at San Vincenzo and D85 in the 9th century, was a luxury ware—exotic. It is possible that its curious forms and elaborate ornamentation are related to the revival of late antique ideology (as seen, for example, in the evidence from San Vincenzo) employed to re-unify the Carolingian-Papal alliance at the end of the 8th century and thereafter (see Ullmann, 1969; Hodges, Moreland and Patterson, 1985).

Glazed pottery occurs in slightly greater quantities in the 10th to 11th century levels and in several fabrics. Vessels made in at least three or four centres reached San Vincenzo in this period. Nonetheless, it still represents less than 1% of the assemblage at San Vincenzo and significantly, about this much at Colle Castellano (before 962) and Vaccheraeae too (Hodges et al, 1984). Its growing prevalence in the 10th century may be noted its incidence in *castelli* like Colle Castellano and Vaccheraeae, but must not be exaggerated. Its incidence reflects the comparative social proximity in terms of wealth between the monastery of the 10th century and its villages. This was a brief phase, as all the historians know. Its incidence may also shed light on the common occurrence of so-called Forum ware on other *castelli* in central Italy (Potter, 1979, 165), though we should point out the absence of glazed wares from Vetran'a near Termoli in the Biferno valley (Hodges and Wickham, 1981) and at neighbouring Portacannone (Hodges and Wickham in Barker, forthcoming). Furthermore, it would seem to represent an example of the increasing diversity of forms occurring in later 10th-11th century contexts as local industries began to develop and to service a growing population (see Hodges and Wickham, 1981 for Vetran'a).

The kiln belonging to this period (Fig. 7) is technologically similar to many of this era and earlier, known from western Europe (Hodges, 1981, fig. 7.9; Morgan, 1942, fig. 9), but is simpler than the large rectangular kilns of Dhiorios of late Roman date (Catling, 1972, fig. 12), and the similar 10th century example from Basra, Morocco (pers. comm. Charles Redman). It shows that the technology had remained fairly static since the 9th century, but that the community called for a wider repertory of wares from the specialist. We should also note at this point that the sizes of the vessels were increasing, a reflection of the changing functions to which pottery rather than vessels made of leather or wood was being put. The groups from 11th century Santa Cornelia (Lazio) (Whitehouse, 1980b esp. Figs 8 and 9), Scribba (Gareki and Noye, 1981; Noye and Flambard, 1977), Altavilla Silentina (Peduto, 1974, 103-24, tav. XXVII-XLVIII) as well as northern sites like Torcello (Leciejewicz, Tabaczyńska and Tabaczyńska, 1977) indicate the influence of large Byzantine vessels upon Italian ceramic production. To take just one illustration, the ophthaloid bases prevalent at Rome, as well as in other parts of Italy, stem from an idea long in fashion in the east Mediterranean (see Yassi Ada: Bass, 1982, 24-28, fig. 8-12; Constantinople: Hayes, 1968, fig. C, no. 6 def. D, no. 26; Kornos: Catling and
DIKOROPLOUS, 1970, figs. 3 and 5-13). Possibly these influences may be connected with the revival of Byzantine fortunes in southern Italy in the 10th century (WICKHAM, 1981, 154-9), and may be related to the incidence of Byzantine and Islamic maiolicas in 11th century contexts throughout Italy (for example at Pisa: BERTI and TONGIORGI, 1981; Torcello: LECZEWICZ, TABACZYNSKI and TABACZYBSKA, 1977, fig. 44, nos. 1, 2, 7, 8, 19, 20, 26, 27, 28, 30, 44).

Conclusion

This paper has attempted to examine the evidence from the important sequence at San Vincenzo in its European context. We hope that it sheds light on some specific ceramic issues, illustrating for example the place of red-slipped and glazed pottery at this important centre. We believe it compels us to look closely at all transition from late Roman to pure medieval pottery forms in central Italy. Most significantly, however, we hope to have illustrated the varied pattern of pottery production after AD.600 in the peninsula, and the development of the pure medieval industries. There can be little doubt that the history of technology in Italy between 600 and 900 resembles closely that in other parts of the Carolingian Empire. Indeed, we have an index of a primitive domestic mode of production (see PEACOCK, 1982, 8), existing alongside workshop industries (see PEACOCK, 1982, 9) which may have been controlled by the elite. As in north-west Europe, the real origins of late medieval pottery lie in the great economic (and social) changes that coincide with incastellamento during the 10th and 11th centuries. Potters, like all medieval specialists, then endeavoured to serve the large markets at their command.

The study of the San Vincenzo pottery is far from complete, but we feel sure that it will prove a significant component in rewriting the history of early medieval Italy.

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