A FETISHISM FOR COMMODITIES: NINTH-CENTURY GLASS-MAKING AT SAN VINCENZO AL VOLTURNO

The fetishism for commodities, as Karl Marx pointed out, plays a fundamental part in the making and continual fashioning of western society. Commodities are not inert and mute, but objects that are set in motion and animated. In some ways, like humans, objects have their own biographies, which perform an integral part in the relations between people (cf. APPADuRAI 1986, 4). Objects, on the other hand, unlike personal relations, tend not to disappear. They are the stuff of archaeology. The interpretation of objects, as is now widely recognised (cf. SHANKS & TILLEY 1987), is far from straightforward. Furthermore, because of the complex part that objects played in time and space, it is rarely possible to reduce the fetishism of commodities to simple economic equations, however tempting it might be to do so. Necessarily, therefore, the consumption as well as the supply of objects is part of a single cultural process—an activity that is " eminently social, relational, and active rather than private, atomic, or passive " (APPADURAT 1986, 31). Taken further, the consumption of commodities (and the demand that makes it possible) is essentially the focus not only for sending social messages, but for receiving them as well.

Commodities may be provisionally defined as objects of economic value. But what is meant by this value? This is a question to which Keith Hart has recently responded in an influential essay (1983, 40-1). Hart has devised a scheme to describe value in terms of a step-by-step evolution of commoditisation from the most primitive circumstances up to the point in modern times where meta-fetishism exists in the form of the futures market, in which not only does the value of the commodity become a substitute for the social relations that lie behind it, but the movement of prices becomes an autonomous substitute for the flow of the commodities themselves (cf. APPADURAI 1986, 50). There is much in Hart's simple scheme which is attractive for students of archaeology. Above all it compells the historian to focus upon the contextual role of objects in terms of time and place (cf. APPADURAI 1986, 16). Of course, it needs to be stressed that Harths model is an abstraction because not all commodities play precisely the same role in social process. Yet, as I have pointed out elsewhere, Hart's scheme provides a preliminary framework for defining the process of economic change at a critical point in *European history, as the medieval nation-states took shape* (HODGES 1988; 1989; 1990).

Using the consumption of commodities to define the making of modern Europe is not a new line of research. One of the fathers of modern economic history, Werner Sombart, moch influenced by Karl Marx and Max Weber, published an influential book entitled *Der moderne Capitalismus* in 1903 (cf. PARSONS 1928). In his study of the period 1300 to 1800 in Europe, Sombart contended that the principal motor pushing the development of trade, industry and finance capital was the demand for luxury goods. Fashion, Sombart argued, became a driving force for the elite to demand ever-increasing quantities and ever-differentiated qualities of articles for consumption. Demand, in his opinion, bronght an end to the seigneurial lifestyle of the High Middle Ages, and at the same time provided the foundations for modern capitalist manufacturing industry. In the subsequent ninety years Sombart's thesis has becn much embellished. Certain aspects of his thesis have becn used in a reworked form to examine the changing social and economic relations of the Early

Middle Ages. Notably, Georges Duby has proposed that a central feature of the high Carolingian age—a period in which, to use Pirenne's metaphor, the scaffolding of the Middle Ages was erected—there was a significant shift from an economy that was founded upon the principles of gift exchange between the court and members of the aristocracy, to one in which commodity exchange was effectively introduced in response to a series of imperial capitolaries. Coinage, so Duby believes, was the principal mechanism used to articulate this new economic mode (DUBY 1974, 110). The model has been widely adopted in its general form (e.g. WICKHAM 1984). Above all, this thesis is consistent with recent detailed analyses of the Frankish and Lombardic history, which shows that the end of annual warfare and raiding to obtain plunder and slaves explicitly to sustain a circuit of gift-giving, came about in the early 9th century (REUTER 1985; 1990).

Coming late to this debate, archacologists have not becn swift to appreciate the importance of their database. Over the past half-century archaeologists have becn engaged in compiling rather than analysing inforrnation about the production, distribution and consumption of commodities. Holger Arbman's influential Schweden und das karolir~gescher Reich (1937) revealed the potential of the discipline. Since then a post-war generation including Herbert Jantuhn (1953), Joachim Werner (1961), Gerald Dunning (1959;1968), and, more recently, Heiko Steuer (1987) have led the way in plotting the distribution of medieval artefacts in western Europe. Their studies have provided a framework for the discussion of trade and exchange in the Middle Ages (cf. HODGES 1982; HODGES & WHITEHOUSE 1983; STEUER 1987). The evidence assembled so far wonld appear to indicate the following economic history.

With the collapse of the pan-European system created by the Romans (cf. RANDSBORG 1991), the stage-by-stage development of the medieval economy seoms to depend upon not only the production-distribution of commodities, but also their consumption. The true scale of this collapse, of course, is a matter of contention. Few archaeologists and historians would contest the point that a fundamental issue for medieval Europe is how the small-scale distribution of prestige goods, meeting the demand of the elite in the immediate aftermath of the collapse of the Roman Empire, had becn transformed into industrial proportions by the High Middle Ages. How did commodities come to be produced by divided labour (Hart's stage 3); and, by what means did commodities come to be circulated by exchange (Hart's stage 4)? What were the pre-conditions for what Hart describes as " a giant step in the abstraction of social labour "—exchange through the market mechanism (Hart's stage 5)? Notwithstanding Hart's rather western (i.e. European) approach to the problem of the transition from gift-giving to commodity production, it is fundamental to discover the nature of these preconditions.

As I have pointed out elsewhere (HODGES 1988; 1989), the preconditions can traced to the activities in the emporia around the North Sea basin. Here elite demand bocame focussed for the first time in a place as opposed to individuals. From theTr foundation in the 7th century up until the emergence of ranked, competitive markets in the late 9th century, the emporia provided a slowly evolving context for the formation of commodity exchange. But for a variety of reasons, these pre-conditions are more difficult to trace in Continental Europe. Here, we are tied to a history, for the most part, constructed by monkish chroniclers, illuminated indifferently by an inchoate body of archaeological data. Duby's thesis (1974) emphasises the need for regional studies of the archaeology of production, distribution and consumption in the Early Medieval period. The written sources

have been exploited as far as they might be until fresh means are available to crossexamine them. Prompted by the existence of this lacuna in European archaeology, we lannched the San Vincenzo Project. This focusses upon a major Benedictine monastery and its territory during these crucial centuries. The project has becn described extensively elsewhere (HODGES 1992a; 1992b). Suffice it to emphasise here that a significant sample of the 8th- to 1 lth-century monastery has been excavated, and that, similarly, studies have been made of several of its dependent settlements in its territories. Of greatest significance, however, is the discovery of a 9th-century collective workshop at San Vincenzo in which, amongst other things, glass was made in large quantities. Some of its products, as I shall show, were distributed to the monastery's dependencies in its territory. In the following part of the essay I shall describe the principal features of this workshop and its products, before examining the pattern of consumption revealed by our investigations within as well as beyond the bounds of the monastery.

The collective workshop

The workshop was discovered in 1983 situated in the southern part of the 9th-century monastery. Further excavations in 1984, and then in 198990 show that the building takes a rather unusual plan, most of which lies up against the south side of the great abbey-church of San Vincenzo Maggiore, and one part lies beyond the east face of the church. The building belongs to phase 4 of the monastery; it appears to be part of the great project attributed to AbbotJoshua (792-817), who not only built San Vincenzo Maggiore (as the 12th-century Chronicon Vulturnense contends), but also developed the hitherto small monastery covering about a hectare into a settlement of urban proportions covering 5 hectares.

The workshop comprised at least four rooms and an enclosed yard to the south. The easternmost room, D, flanks the east front of the abbey-cLurch almost as though it was an annexe. As yet, only a small part of this room has been excavated. This showed that it contained a palimpsest of small, oval-shaped kilns. Judging by the clean oxidised cinders and frit associated with these furnaces, each kiln was used in some aspect of glass production. Room A was discovered in 1983, and has now been largely excavated. This contained small working furnaces during its lifetime, as well as the base of an oval-shaped feature defined by stones and lined with crudely shaped tiles (Fig. 2). This room was connected by a wide door with an earthen threshold to room D. At its south end, giving access to the yard, there was a wide door supported upon re-used blocks of classical date that were set into the east and west walls of the building. Amongst the carbonised remains of the door, burut down during the Arab attack on San Vincenzo in 881, was a simple iron lock. Only a small portion of room B has been uncovered. In phase 4 (attributed to the first quarter of the 9th century) this room contained the remains of a rectangular, tile-built structure which has been interpreted as the foundations of a glass-making kiln of the kind illustrated in the De Universo de Raban Maur, a manuscript made at Monte Cassino in 1023 (SCHENK ZU SCHWEINSBERG 1963). Room B was connected by a narrow doorway at its south end to room C to the west. Room B was extensively remodelled in phase 5 (attributed to the period c.824-81). The door to room C was blocked, and a new door was cut throngh the south wall of the room, giving access to the yard. Room B was then sub-divided. A passageway, defined by a wattle and daub wall on its east side, was

made in the western part of the room, connecting the door to the yard to the body of room B (that has yet to be excavated). The main part of room B was also extensively altered. A hard plaster floor, possibly the base for a tile floor, was lald over the foundations of the tile-built kiln. At the same time the walls of the room were plastered and decorated with frescoes. It is likely that several terracotta corbels, found in the destruction levels of the workshop, were associated with this room. (The corbels are decorative architectural brackets which are designed to be set in sequence just beneath the eaves of a building, to provide an ornamental crown to the walls.) Room B, all the evidence suggests, had been made into a residence. Like room A, it was devastated in the sack of 881.

Only a tiny corner of room C has been excavated. Here, in the south-east angle of the room, when the connection betwecn this room and room B was blocked in phase 5, a small metalworking hearth was made. It was not possible to judge the size of this operation.

Excavations of part of the yard show that it was defined on its south side by a fence of some kind constructed upon a timber beam that had becn set in a trench. The beam had becn burnt, presumably in the attack of 881. Within the yard, immediately outside room B, were traces of two small bowl hearths each about 80 cms. long, 50 cms. wide and betwecn 5-10 cms. deep. The two hearths were separated by a heavily fired ridge of the orange-brown clay. Apart from these two hearths, however, the yard showed no signs of being used for industrial purposes. In phase 5, perhaps coinciding with the alterations to room B, the yard was surfaced with cobbles.

The exact dimensions of the workshop building are not yet clear. It is uncertain, for example, whether room D actually belongs to the building as such, or if it might be a separate structure. Only further excavations will clarify this point. The complex, therefore, containing rooms A, B, and C measures 27 m. wide (east-west), and 31 m. long. When building it, its axis was determined by the south wall of the abbey-church of San Vincenzo Maggiore, alongside which it lies, which in turn is constructed upon the levelled remains of a monumental later Republican/Early Imperial building. Before constructing the workshop, the demolished (and levelled) remains of this monumental building were sealed by a thick spread of alluvial clay. Rather more surprising is the proximity of this industrial complex to the massive abbey-church. At first this seems rather improbable. For this reason it needs to be stressed that the level of the workshop floors as well as the yard was about 3 m. below the estimated level of the floor inside the abbey-cLurch. Furthermore, it is likely that the abbey-church was probably entered from its north side rather than by any doorway in its east-facing facade. Neither monks nor visitors, as a result, need have noticed the workshop up against its south side. (A parallel of sorts for this relationship between glass - making and a cLurch can be seen at Torcello, where a round kiln of 7th-century date was found in excavations beside S. Maria Assunta. The excavators of this kiln have associated it with the construction of the church in AD 639. They propose tEat it was used to make the glass tesserae for the wall mosaics in S. Maria Assunta: LECIEJEWICZ et al. 1977, 248).

Crucibles, equipment and glass-working debris

A large number of crucibles have been found, mostly associated with room A and to a lesser extent with the bowl hearths found in the yard (during phase 4). All the crucibles seem to be wheel-thrown wares, the majority of which belong to pottery fabric 4-3, which Helen Patterson attributes to a clay source in the environs of Colli a Volturno

(PATTERSON 1992), about 6 km from San Vincenzo. About half of the crucibles measure 80-90 mm in diameter; a number, however, are rather larger, measuring 120-150 mm in diameter with an average height of about 140 mm. One fragment is 220-230 mm in diameter. Wheel-thrown crucibles, as Daniele Foy has noted (1988, 173), seem to be normal in Western Europe before the 11th century, at which time hand-made types are predominantly adopted by glass-makers. But not all the crucibles were ordinary tablewares, as Daniele Foy supposes in her recent study of medieval glass-making. The large open forms, mostly taking a bucket shape are not found elsewhere in the repertoire of San Vincenzo pottery. Many of the crucibles contained glass, including a surprising number in which window glass was present. Most sbow signs of exposure to an intense oxidising atmosphere. Smaller crucibles for working metals, in some cases with pinched pouring lips, have also been found in the excavations. In sum, all the evidence soggests that these vessels were made specifically by local potters for the variety of industrial activities undertaken in the workshop. This prefigures a pattern, best-known at present from excavated 10th-century urban sites in England, where the glass and metal workers were supplied with the crucibles by the major pottery centres active in their regions (cf. ADAMS GIEMOUR 1988, 70-77; MAINMAN 1990, 471).

Other objects from the excavations include a fine example of a quernstone about 40 cms. in diameter—the first to be found at San Vincenzo al Volturno—as well as two honestones made from local stones. It is tempting to associate these with the industrial activity. Theophilus in his account of glass-making describes a *runcina*—usually interpreted as a grinding stone like that illustrated in the Utrecht Psalter (folio 35), which was used for preparing flat glass surfaces. Baumgartner and Krueger note the incidence of a quernstone of this kind from an excavated glass workshop in the Argonne, dating to the 13th to 14th centuries (1988, 27).

Soapstone jars—*pietra ollare*—have also been found in the worksbop. These alpine vessels, however, are often associated with industrial activity (MANNONI & MESSIGA 1980). But sFerds of similar jars were found at San Vincenzo in other 9th-century contexts: in the so-called Distinguished Guests' Refectory as well as the quarters associated with the retainers of the distinguished guests. Soapstone has also becn found in rural domestic contexts in the survey of villages towards the Adriatic end of the Biferno valley (cf. HODGES & WICKHAM 1981).

The debris from the glass-worLing includes many sections of moiles, or remnants of gather removed from the ends of the blow pipes. These offer some guidance about the size of the blow pipes used in he workshop. These vary from 15 mm for the largest pipe to 10 mm for the smallest. Other debris from the glass-making process includes trimmings of glass, buckled sherds of glass vessels, over-fired glass tesserae and reticelle rods. Most of this debris was found associated with the bowl hearths in the yard (outside room B) or in the fill of the robber trench at the back (north end) of room A. Tesserae do not occur in the excavations of the monastery. However, some 144 examples have becn found in the excavations of the glass workshop, of which 70~ are blue or blue-green. Green, yellow and red tesserae are also present. (At Farfa, Martine Newby records some 170 glass tesserae in a great variety of colours, the predominant of which being blue: NEWBY 1987, 262; fig. 5). It is tempting as a result to regard the tesserae as spolia brought to the workshop to be melted down and used as a colouring agent in the preparation of the San Vincenzo glass. Needle-tLin reticelle or filigree rods, by contrast, occur in some numbers. Generally, these

are formed of either a blue glass or alternatively yellow or white opaque threads spiralled around a slender column of colourless glass. Many of the rods have been broken or possess melted ends, indicating that they are waste from the glass-making process. In fact, some 81 have been found in the excavations. Of these 27% are less than 10 mm. long; 65% are 10-19 mm. long; 6% are 20-29 mm. long and only 2% are in excess of 30 mm. in length. Some 69% of the rods are 1-2 mm. in diameter, while 28% are between 2-3 mm. in diameter. It appears thet the rods were used at San Vincenzo to decorate only the sides and tops of plain glass vessels. Elsewhere, in the British Isles and Scandinavia, the entire vessels were ornamented using this technique (see HOLMQVIST & ARRHENIUS 1964,254 on the history of these rods; see also MOREEAND 1985, 50).

Analysis of glass samples by members of the British Muscum Research Laboratory shows that the composition is of a degenerate Roman type (BIMSON & FREESTONE 1992). The composition suggests that this is Roman glass made using natron (rather than the forest ash method favoured in the Middle Ages), some of which may have becn recycled. Huge quantities of Roman glass would have been needed to make the windows, vessels and other objects produced in the workshop. Cart-loads of glass cullet, matching in quantity the amount discovered in the1 th-century wreck found at Serce Limani off the coast of south-western Turkey (BASS & VAN DOORNINCK 1978), must have been brought to San Vincenzo either as spolia from a Roman settlement or from some central workshop where glass was made from sand. However, Roman glass waste seems to be absent, except in the form of tesserae. One important discovery is a fragment of crucible waste which comprises a layer of clear glass to which a yellow tessera in a melted state has becn added as a colourant. As tesserae occur only in the workshop area at San Vincenzo, it is tempting to conclude that large amounts of Roman glass tesserae were acquired as spolia, possibly resulting from the demolition of an Early Christian building. On the other hand, it remains to be seen whether the frit discovered in the excavations, especially in room D, betrays a technical ability to make glass, hence accounting for the large amount of it present at San Vincenzo. Future analyses and excavations should resolve this intriguing problem.

Products of the worksbop

Window glass. Over seven thousand fragments of window glass have been found in the excavations. Many of the phase 4 (early 9th-century) buildings were lit with small windows. The monks' refectory, for example, judging from the excavated remains had windows spaced at two-metre intervals along its 30 m. length. Some 85% of the glass is green; 11% is blue; 1% only is clear; and a further 3% includes types with reds and green with red zig-zag veining. (By comparison, the recent excavations at Farfa have produced only a tiny quantity of window glass—a total of 224 sherds—of which 35% is green, 14% is blue and 8% is colourless: NEWBY 1987, 259). Painted window glass has not yet becn found at San Vincenzo (cf. FARFA, where Newby reports seven fragments with poor quality yellow paint: 1987, 261).

The San Vincenzo glass was made using the cylinder-blown process described by the 12th-century writer, Theophilus (HAWTHORNE & SMITH 1979, 57). The window glass tends to vary from 1-4 mm. in thickness. Most sFerds have a fine, smooth side and a rongher, matt reverse. Tiny ripples and the feintest striations indicating how the glass was smoothed out can sometimes be traced in the sherds. Many edge-sherds have been found in

the excavations. The edges are either smooth or grozed or cut. The smooth edges are U-shaped without much thickening, following the mould; occasionally, the edge shows an irregularity which can only have been caused by clipping with shears when the glass was hot. Some sEerds have been specifically fashioned. These have grozed edges, crudely cut with a grozing knife and then bevelled with pincers. These sherds offer an impression of the shapes of the original glass quarries. The one well-preserved pane has molded edges on two sides, and cut (rather than grozed) edges on the other two sides.

It is apparent that the windows at San Vincenzo were held in place by copper-rich lead cames (mostly of the H-form). A length of came found in the 1990 excavations still held two small colourless, oval-shaped quarries. This evidence as well as the variety of small, cut quarries suggests that many windows were multi-coloured, pre-figuring the concept of stained glass. There is also evidence of panes of glass; one, for example, is square measuring 26 cm. along each side. A small blue roundel measuring 13.5 cm. in diameter was found in the excavation of the Monks' Refectory.

All the evidence indicates that the production of window glass in the monastery was transacted on a large scale for a short period in the early 9th century. Everything indicates that it was a special feature of the monastery, alongside the ubiquitous painting of the rooms and the use of inscribed floortiles in the pavements (cf. MITCHELL 1985; 1990). Indeed, an analysis of the Egyptian blue paint used to make the paintings in the Distinguished Guests' Refectory sbowed that it too contained small quantities of cobalt blue glass.

Vessel glass. The glassware made in the workshop is most distinctive. Much of it is wafer thin—almost astonishingly fragile—virtually without any irridescence. It is characterised by fine bubbles in the fabric, and by the feintest striations on at least one side. A range of vessels was made in the workshop. The predominant forms are goblets, beakers, bottles with narrow, inwardlysloping necks, free-standing lamps with constricted bases, handled lamps, jars and open dishes. The vessels are predominantly in a clear, colourless and blue glass. Many vessels have becn decorated with the reticelle rods, creating threads of white or yellow. Some vessels have a corrugated surface. Many rims and bases have a smooth finish achieved by grinding or polishing it.

The typological origins of many of the vessels would seem to lie in the glassware of late antiquity. The hanging lamps, for example, are similar in conception to those found associated with the 5th to 6th-century settlement at San Vincenzo (cf. STEVENSON 1988). Perbaps the most interesting illustration of this is an extraordinary chalice suspended on three sinuous stems of glass, which are attached to a circular base. This elaborately made vessel was found in the debris of the DistinguisFed Guests' Refectory. A prototype for this unusual form (though with four rather than three stems) has been found at Aquileia (CALVI 1968, 172-73; tav. 27). In his discussion of it Calvi ascribes the origins of the chalice form to a Syrian workshop in the 2nd century. However, the surviving example from Aquileia which he illustrates appears to be a product of the 4th-5th centuries A.D., and almost certaiuly made in this part of Italy.

Beads, ring-settings, etc. A smaller number of glass beads were found in the excavations at San Vincenzo. Notably, in the excavations of room A, a blue, pear-sbaped bead was found, similar in size and shape to a necklace of pearshaped beads accompanying a 6th- to 7th-century burial cut into the Late Roman tower-house at San Vincenzo. Similarly, the blue glass setting for a finger-ring has becn found.

Enamels. Two pieces of gilded metalwork were found in the worksbop excavations, suggesting that fine metal objects were made in some part of this building. More notably, a once splendid piece of gilded and enamelled metalwork, part of an icon or the lid of a reliquary, was found in the excavations of the distinguisEed guests' area. The enamelled field lies in the one remaining corner (see MITCHELL 1992a for a full description). Against a deep azure ground an exotic flower, like a great daisy, rises on a turquoise stem from a turquoise pollarded trunk. The head of the flower is remarkable for its chromatic symmetry, its red, yellow, white and green petals being literally opposed about its centre. The motif is fashioned of thin cloisons with gilded tops in a manner reminiscent of the well-known cross-reliquary of Pope Paschal I, in the Musco Sacro at the Vatican. Analysis of the azure ground against which the flower is set, by the British Museum Research Laboratory, shows that it possesses a strong similarity to the blue window glass and blue vessel glass made in the workshop (BIMSON & FREESTONE 1992). In sum, there is good reason to believe that enamelled liturgical metalwork was also made in the workshop. Indeed, in the light of this discovery, following the studies made of Middle Byzantine enamels by David Buckton, it is tempting to see this and similar Beneventan workshops as the crucial link between enamel making in Carolingian Europe and its strident revival in late Iconoclastic Byzantium (cf. BUCKTON 1988).

Metalwork. The base of a hearth for working metal was found during the excavation of the corner of room C. In addition, several small crucibles with pinched rims were also found in the excavations of the workshop. However, the most intriguing discovery in this respect are: (i) two long-shanked reinshackles of a bridle set—one was found in the burnt destruction level of room A, ascribed to the attack of 881, and the other comes from the topsoil; (ii) a semi-circular iron buckle from room A. The interpretation and significance of these objects has become possible following the discovery in the excavations of the distinguished guests' area of a set of sword-belt mounts and associated bridle furniture made of iron, but lavishly and skillfully inlaid with silver. The set includes a trefoil strap-distributor, two oval mounts, a semi-circular buckle; a cruciform four-way strap-distributor; a rein-shackle, an iron snaffle-ring from the bit and a silvered strap-slide. This is not the context for a description of these pieces (a full description may be found in MITCHELL 1992b). Suffice it to note that the scrolling plant motif fashioned in inlaid silver wire and amalgam would seem to suggest that the set was made in a central italian workshop. Given that two rein-shackles, and a semicircular buckle, a precise parallel for the buckle in the set found in the northern part of the monastery, were found in room A of the workshop, it seems highly probable that the set was made at San Vincenzo. Put another way, the evidence points to the likelihood that ceremonial and warrior equipment was made in the glass workshop.

Bonework. The excavations of room A during 1990 produced a notable collection of bonework as well as the off-cuts prepared for bone-working. An almost complete composite comb with iron rivets, a fragment of a second comb, a fine carved pin, a plaque ornamented with ring and dot motifs as well as drilled holes, and a strip containing a line of holes, possibly for a flute, were amongst the finds. Apart from the worked bone, however, were cut strips of bone, prepared for carving as well as pieces which had been partially carved and then abandoned.

Discussion

DISTRIBUTION

The distribution of the products made in the glass workshop is obviously limited by the archaeological sample. About 5 ~o of the 9th-century monastery has been investigated, mostly the northern sector believed to have been designated for distinguished guests. In addition, there have been smallscale excavations of the early medieval settlements at Vacchereccia (4 kms. from San Vincenzo) and Colle Castellano, a hilltop on which, it is believed, the 10th-century village of Olivella was located. Excavations have also been carried out on a hilltop site known today as Colle San Angelo, where after one season of excavation a small early medieval church has been found within an earlier Late Roman building. Outside the territory of San Vincenzo, there have been various small-scale investigations of rural settlements in Campania as well as in the Biferno valley of Molise.

Window glass, judging from the prolific numbers of fragments from the excavations, was one of the major products of the workshop in phase 4 (the age of Abbot Joshua). Remains of window panes were found associated with every building in the distinguished guests' sector. The excavation of the Monks' Refectory indicated that there had been a glazed window at 2mmetre intervals along the sides of this 30m. long building. Window glass sherds were also found associated with the buildings identified in other parts of the monastery. In fact, like the ubiquitous wall-painting, glazed windows appear to have been a feature of San Vincenzo at its apogee. (Microscopic, crushed fragments of glass actually occur in the 9th-century painted plaster found in the monastery analysed by X-Ray fluoresence: HOWARD 1992). But window glass is absent from the excavations of the small church at Colle San Angelo, and, less surprisingly, absent from the village sites excavated in the upper Volturno valley. It was also absent at the rural hilltop settlement of D85 in the Biferno valley, where the remains of the 9th-century church were completely excavated, and from each of the other rural settlements excavated in south Central Italy (HODGES, BARKER & WADE 1980). Of course, the glass may have becn dismantled from these buildings, when each place was abandoned, to be re-used elsewhere. A rather more probable explanation is tEat the windows were more modest in the rural churches. The simple singlesplayed window remaining in the small tricorn chapel of this age found beside the Ponte Latrone at the southernmost point of the territory of San Vincenzo offers a clue. Here, while the construction of the building has much in common with the Crypt Church at San Vincenzo (HODGES, GIBSON & HANASZ 1990), the windows in the two buildings are markedly different. A large window, c.1.42 m. high and 40 cms. wide, allowed light into the crypt. By contrast, a narrow, slit-like window, barely 30 cms. high by 20 cms. wide, served the triconch at the Ponte Latrone. The latter, it seems, was not designed to have window glass, while the crypt at San Vincenzo probably was.

Production of window glass at San Vincenzo was almost certainly transacted over a short period. Once its buildings were glazed the only scope for producing still more window glass would have been in the monastery's many rural churches. It seoms that this scope was eschewed. Instead, intentionally, so it would seem, the rural churches remained conspicuously overshadowed in most respects by the grandeur and decorative brilliance of the buildings in the monastety.

The distribution of vessel glass is rather more complex and intriguing than the

window glass. Glass vessels occur in conspicuous numbers only in two places within the 9th-century monastery: in the building identified as the Distinguished Guests' Refectory, and in a ground-floor room beneath the distinguished guests' hall. The majority of these vessels are tablewares: goblets and bottles. Feasting with glass tableware, in a classical manner, to judge by this evidence, had come back into fashion as part of the Carolingian Renaissance. Lamp fragments were also found in the Monks' Refectory and other buildings, but not in any notable number. Sherds of San Vincenzo's distinctive, wafer-tLin glass were found at Vacchereccia, Colle San Angelo and Colle Castellano. At Vacchereccia there was only a single sFerd belonging to a vessel of unknown type; at Colle Castellano 13 sherds were found, including fragments of goblets. At Colle San Angelo some 235 sFerds have becn found in the first season of excavations, all of which appear to have becn lamps used for lighting the chapel. Part of a lamp-chain, similar to several found at San Vincenzo, was also found in the excavations of the small cLurch. Further afield at the hilltop settlement of D85 (Santa Maria in Cività), close to the Adriatic, 16 fragments of vessel glass, including glass goblets, were found in the excavations of the dwellings on the saddle of the hill, including the stem of a goblet (ANDRE~S in HODGES, BARKER & WADE 1980, 123). This glass is quite unlike the San Vincenzo wares, and presumably was made in a workshop either at Benevento or situated somewhere on the Adriatic littoral. Significantly, no glass was found in the excavations of the small church on the very summit of the hill at D85.

In sum, the limited evidence indicates that the glass made in the monastery was readily available to distinguished visitors to the San Vincenzo, but not commonly used by the community of monks and servants. Glassware, however, was distributed in small quantities to the monastery's villages, and, to judge from the evidence at Colle San Angelo, its churches.

By contrast, not surprisingly, the fine metalwork and bonework have a very restricted distribution. The sword set and the associated harness gear were found in an 11th-century tip overlying the distinguished guests' garden. It is impossible to pinpoint the source of the assemblage, though the concentration of this material within the tip suggests that it once graced a 9thcentury tomb or some such context in or very close to the distinguished guests' sector. The enamalled book-cover or reliquary was found in another tip close by. Bonework, however, is very rare at San Vincenzo, and (in contrast to north European sites) is absent from the excavations of other rural settlements in Molise. There is good reason to conclude, therefore, that these fine objects were made for distinguished members of the Beneventan community on the one hand, and for the ceremonies and rituals within the monastery on the other.

A COLLECTIVE WORKSHOP: PRODUCTION AND DEMAND

The location of the workshop merits some consideration. It was situated alongside the abbey-church, albeit at a level well below that of San Vincenzo Maggiore. Nevertheless, smoke from the furnaces from time to time must have obscured the south-facing facade of the abbey. The workshop, it seems, was conccived at the heart of the monastery, yet well away from the parts where guests were entertained and accommodated. In this respect, it has something in common with the Great Collective Workshop depicted on the St. Gall Plan of c. 820, which was situated beyond the gaze of visitors, behind the monks' refectory

(HORN & BORN 1979, 189ff.).

The short history of the workshop at San Vincenzo merits discussion. At first it appears to have becn an integrated series of rcoms, in each of which specific activities were practised. In this respect it resembles the Great Collective Workshop shown on the St. Gall Plan. During phase 5, however, room B was utterly transformed. The glass kiln which had dominated the south end of the room was dismantled, and the workshop was made into a dwelling of some kind. It was a painted room, probably ornamented with decorated terracotta corbels beneath its eaves. This refitted room, it must be assumed, as worksbops continued to exist either side (in rooms A and C), was the accommodation, to judge from the St. Gall Plan, of the chamberlain. The chamberlain was in charge of the production and maintenance of the monastery's material supplies and tools, including the community's footwear and clothing (HORN & BORN 1979, vol. ii, 189). Where had he lived before? And, why at this stage was part of the workshop given over to accommodation? The first question cannot be answered. Yet, we might deduce, it was deemed important that, as at St. Gall, the chamberlain was present in the building. Perhaps, his presence relates to the directive issued at the first synod of Aachen in 816 which modified the Rule of St. Benedict and ruled that the craftsmen " be instructed to perform their work henceforth not without, as heretofore, but within the monastic enclosure " (HORN & BORN 1979, vol. ii, 189). In other words, the presence of the chamberlain may mark San Vincenzo's intention to develop its production of commodities under the watchful eye of a senior member of the monastic elite. Accommodation for him in the building was made possible, judging from the destruction of the glass kiln in room B, by the diminished demand for glass, perhaps because most of the monastery's windows must have been glazed by this time. Other, small-scale glass-making obviously continued, as did a number of other crafts. Let us briefly consider the genesis of the institution.

The workshop brings to life the existence of a third order at San Vincenzo, a mode of life and a way of being (as Georges Duby described it: 1982, 109) that has hitherto been familiar only in the vaguest sense. Marc Bloch long ago noted that the human community was divided into three orders (1961, 291); equally, Lynn White pointed out that monasteries in the Carolingian age nortured the revival of rural industry (1963). White, though he makes no mention of it, doubtless had in mind the Great Collective Workshop depicted on the St. Gall Plan (HORN & BORN 1979,vol. ii, 189ff.). In this building, the plan indicates that leatherworkers, metalworkers (including grinders and sword polishes), woodworkers, goldsmiths, blacksmiths and fullers all might work under the watchful eye of a chamberlain. Georges Duby, however, sought the seeds of the trifunctional theory, not at St. Gall, but in the works of a Carolingian monk, Haymo, at Saint-Germain of Auxerre, who was concerned with sacerdotes, milites and agricolue. Haymo and the maker of the St. Gall plan belong to the same age. That is, they reflect an attempt to resolve the problem of what works a monk might practise, an issue raised at the Synod of Aachen in 816. The Rule of St. Benedict, compiled in late antiquity, stipulates that " if there be craftsmen in the monastery, let them practice their crafts with all humility " and " let the goods always be sold a little cheaper tEan they are sold by people of the world " (HORN & BORN 1979, vol. ii, 189). This suited monasteries which were conceived as retreats. But the great monasteries of the Carolingian age were designated as centres of civilisation, promoting an ethos. It is probably for this reason that at Aachen in 816 Bishop Haito roled that the craftsmen " be instructed to perform their work henceforward not without, as heretofore,

but within the monastic enclosure ". The presence of the chamberlain in the midst of the Great Collective Workshop at St. Gall, and the maLing of room B into an apartment in the worksbop at San Vincenzo, vividly illustrates the new concern for controlling commodity production. The third order had come of age. It marks whatJacques Le Goff has called the Carolingian Renalssance of labour (1980). In practice, as I have shown elsewhere, collective workshops had existed in the large North Sea emporia like Dorestad, Quentovic, Hamwic, and Ribe since the late 7th century (HODGES 1988; 1989). The Renalssance of labour, however, marks the adoption of the principle by the ecclesiastical elite, who along with the aristocracy, formed the dual pillars of society in Latin Christendom. As White presciently noted (1963), monasteries furnished the new ranked regional market towns of Europe with skilled craftsmen during the 10th and 11th centuries.

But where did San Vincenzo find its labour? Studies of Early Medieval monasteries show that in the Carolingian age they drew monks from all over Latin Christendom, and servile labour from estates made over to the monasteries as gifts. AbbotJosbua built up San Vincenzo's patrimony during the early decades of the 9th century, acquiring numerous estates in the Kingdom of Beneventum (WICKHAM 1992). It seoms reasonable to suppose that the workforce at San Vincenzo came from these lands. But the monks and skilled artisans almost certainly came from a multitude of backgrounds. The glass maker—and there may have only ever becn one, who might have taught apprentices at San Vincenzo—might have come from as far away as the emporia of northern Europe. (Emporia of the north European type appear to be absent in Italy.) Hence, production of commodities at places like Rome seems to have becn focussed at the courts of the elite. In other words, it was on a very small scale (cf. DELOGU 1989), perhaps primarily for the purposes of gift exchange. Nonetheless, the San Vincenzo glassware forms and the use of enamel tend to suggest that glassmaker was familiar with classical traditions in the peninsula as well as Lombard ones. Indeed, given the widespread rarity of early medieval glass in Italy, not least in places like Monte Cassino and Rome, it is tempting to suggest that the glassmaker was someone special. Might he have been a monastic noble of the standing of Archbishop Elegius, the 7th-century Neustrian smith, whose metalwork was legendary in Merovingian Gaul (VIERCK 1974)? Glass seoms so prominent in the material culture of the abbey during phases 4 and 5 that it is tempting to think that the glassmaker was regarded as the monastery's talisman. Perhaps this might explain why, unlike other Italian monasteries, San Vincenzo did not bother overmuch with sculpture. If we adopt this model —laying emphasis upon an individual—it might account for the volume of glass. This rather exceptional man, we might deduce, knew how to make frit, and where glass cullet could be found in large quantities. Just as Josbua was able to commandeer the spolia from a Roman temple at Capua with which to build his new abbey, so it follows that the glassmaker knew of disused Roman glassworks at the south end of the river Volturno, where as Pliny tells us, glass was made in Imperial times because the sands were so fine. If indeed he was the talisman, attracted to San Vincenzo by Abbot Josbua, then it might explain how the glassmaker in turn persuaded smiths and others to join and collaborate with him in the collective workshop. In sum, the transformation of San Vincenzo might have involved only a handful of monks capable of articulating an ethos initially concelved in the Carolingian court.

So what was the ethos? The history of the 9th-century workshop at San Vincenzo

offers some clues about the birth of the fetishism for commodities in Latin Christendom. These commodities were very far from being inert and mute. To paraghrase Theophilus, any visitor to San Vincenzo in Abbot Joshua's age, would have becn transfixed by the display of colours (cf. HAWTHORNE & SMITH 1979, 47). Rural cLurches such as those at D85 and Colle San Angelo were painted, perhaps by the same artists working at San Vincenzo. But in one respect San Vincenzo differed: the windows of its sanctuaries and its guest-houses were glazed. The transmitted light conveyed the special significance of this place to the visitor. Did this create a demand for glass, not just prestige objects set with multi-coloured enamels, but also lamps and goblets? Here, might we be wituessing the shift from a economy founded upon gift-giving betwecn the elite, to one, anchored upon the efforts of the monastery, where noble goods are made available in a prototype market system? Demand, in short, was stimulated by the Church. After all, this demand might have served ideological motives, propagating through the medium of these objects the existence of a new ethos—essentially the Carolingian Renaissance. The San Vincenzo Project certainly suggests that this happened. The monastery doubtless provided its churches with lamps, and provided goblets to the farmers of Colle Castellano. The exchange of prestige goods between elites, as I have shown elsewhere, was a fundamental factor in the creation of limited commodity production in the later 7th century (HODGES 1988). But the production and demand of prestige goods for non-elites belongs to the Carolingian world, and the revival of classical technology, as we are witoessing at San Vincenzo. There is little mystery to tLis. Material culture is virtually absent in the later 7th and 8th centuries in Central Italy (cf. HODGES 1990). Suddenly, after c.780 demand—to judge from the patteros of consumption of commodities—was being nurtured. In this instance, a social message was being emitted from the monastery: a culture founded upon certain ritual objects was being put at the disposal of the elite and slaves of the region by Abbot Joshua. The cavalry equipment helped to sustain the status of the Beneventan elite, who in turn made donations of land and labour to the monastery. The glass offered the peasants of Colle Castellano a sense of the culture enioyed by their masters, for which, in return, they perhaps provided labour services and foodstuffs. It was oLviously in San Vincenzo's interests to manipulate the fetishism for commodities, controlling not only production in its colloctive worksbop, but also demand. The emporia founded around the North Sea during the 7th century were founded on the same principles (cf. HODGES 1989). But as Hart has pointed out, two-sided reciprocal exchange—articulating the demand for objects in society—invariably engenders exchange throngh a market mechanism. Perhaps the Carolingians believed that they might control markets at monasteries(“ a giant step ”, as Hart describes it: 1983,40-41), much, in a sense, as their classical forebears had done in their cities (cf. FINEEY 1981). It remains to be seen whether this demand acclerated the production, distribution and consumption of utlitarian goods. Like coinage, to follow Duby's argument, prestige goods facilitated the critical stages towards a marketbased economy, and all the social changes that this involved. In practice, the "invention" of commodities in the Carolingian age appears to have triggered a demand thst far excceded the capability of the monasteries, and in essence, proved to be a threat to the aristocracy. The demand, in common with the three orders, was to become a fundamental tenet of medieval society. Once invented it would not disappear. Yet a telling image of this new phenomenon is the violent sack of the great Benedictine abbey of Monte Cassino in 842, a monastery doubtless engaged in similar activities to those witnessed at San Vincenzo (CITARELLA &

WILLARD 1983). Monte Cassino was sacked and its treasury looted not by Arabs or Vikings, but almost certainly by the same Beneventan nobles whose families at some time had becn supplied with commodities from its workshops. Demand for commodities, as Appadurai noted, manipulates, within limits, social and economic forces. These can lead to unpredictable results. It is little wonder, therefore, that in 881 there was a lock and key on a heavy door leading into room A of the workshop.

* * *

The excavations of the workshop at San Vincenzo are not yet completed. The evidence obtained so far, taken into consideration with the glassware found in San Vincenzo's dependencies, leaves us in little doubt that the glassmaker was someone special in the history of this place. Equally, as the monastery sought to become a centre of civilisation, adopting a new Benedictine ethos, it launched a demand for commodities. These were to form an integral part in the different levels of social relations maintained by the monastery. As such, this project not only helps us to trace the genesis of the technology described by Theophilus, but also the part played in time and space by objects which, even to the modern eye, could never exactly be described as inert and mute.

RICHARD HODGES

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