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THE BEGINNINGS OF LUSTREWARE IN RENAISSANCE ITALY

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In his *Descrittione di tutta Italia*, published in 1550, Leandro Alberti wrote a short panegyric of the lusted pottery made in the little town of Deruta in Umbria:

The pottery made here is celebrated for being worked in such a way that it seems gilt. And the work is so cunningly carried out that up to now no craftsman in Italy has been able to equal it, although experiments and attempts to make similar work have often been made. These vases are called *Maiolica*, because originally the technique was discovered on the island of Majorca, and it was brought here from there¹.

This contains two misconceptions: Deruta was not the only place in Italy where lustre was successfully made, and the technique was not discovered in Majorca. If so well-informed a contemporary was awry, it is not surprising if the origin and early history of Italian lustreware are still among the most problematic subjects in the history of Renaissance pottery. The purpose of this article is to examine some of the problems and to give some account of recent Italian research on the subject.

One of the grandest pieces of pottery of the 15th century is the wing-handled jar once owned by Horace Walpole, subsequently part of the Godman Bequest of 1983 to the British Museum, and now resplendent in the Museum's new Renaissance and later gallery² (fig. 1). It was made in Spain, near the Christian port of Valencia, probably at the small town of Manises. The arms, between bands of blue and lustre leaves, are those of Medici; in the upper roundel are the lilies granted by the King of France in 1465 to Piero de' Medici ('the Gouty') and subsequently borne by his branch of the family. These arms and the ring and feathers device on the back indicate that the jar was made on commission for or as a gift to Piero, or for his son Lorenzo 'the Magnificent', who succeeded as head of the family in 1469 and died in 1492.³

This ambitious jar (or perhaps more accurately 'vase') surely had no storage function: it is an object made for display, almost for its own sake. Such a long-distance commission for luxury pottery would have been unusual before the 15th century. Pottery was widely used all over medieval Europe, and tin glaze had been known in Italy for two centuries; but pottery had not before in the Christian West aspired to the condition of art. Pottery is virtually never

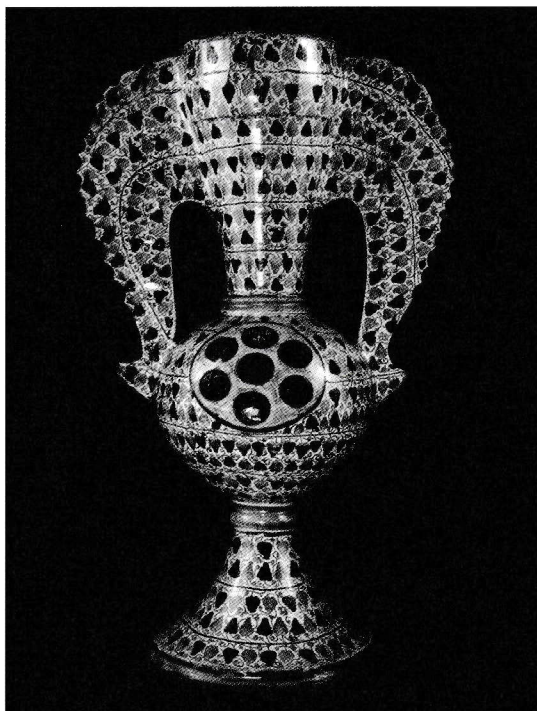


Figure 1. Valencia region, after 1465. British Museum.

listed in aristocratic inventories in medieval Europe: it was (with the exception of rare imports from Islamic southern Spain) simply kitchenware, too cheap to deserve mention.

However, Spain was heir to a different tradition, stemming from Islam, where pottery had for centuries been seen as having aesthetic value. This esteem for pottery was linked to two technical inventions, glazing pottery with a white tin glaze, and decorating it with metallic lustre.⁵

Both inventions appear to have been made in what is now Iraq, around 800 AD. Adding tin to a glaze to turn it white seems to have been an attempt to imitate white-bodied imports from China. Lustre is thought to have been a variant of a technique previously known to glass-makers. Compounds containing silver and/or copper are applied to pottery that has already been thrown, fired, glazed, often painted in colours, and fired a second time; the pot is then given a third, low-temperature firing. The essential technical process is 'reduction': during



Figure 2. Probably Florence region, c. 1450. Museum Boymans-van Beuningen, Rotterdam.

the firing, oxygen is driven out of the kiln and the metal oxides are converted into a thin layer of metal particles on and in the surface of the glaze; when cleaned, this has an iridescent surface that ranges in colour from golden-yellow to red. Copper tends to produce red lustre, while silver tends to produce yellowish, but the conditions of firing also affect the colour.

Tin-glazing and lustring pottery spread through the expanding Islamic world in succeeding centuries. Some sumptuous dishes from various parts of the Islamic world found their way from the 11th century onwards to Pisa, where they were set into church façades. Since these so-called *bacini* are sometimes on datable buildings, they are key documents for the history of Islamic pottery.⁶

By the 13th century, elegant lustrated pottery was being made at the westernmost extremity of the Islamic world, at Malaga, in the Kingdom of Granada. In 1337 an Islamic writer wrote that Malaga was famous 'for ironwork and for its golden pottery, the like of which is not known elsewhere'; and another a few years later wrote that 'in Malaga is made a wonderful golden pottery and it is sent abroad to far-distant lands'.⁷ Malaga potters probably made some of the most stupendous achievements in the history of ceramics, the huge vases for the Alhambra in Granada.⁸ That Malaga lustreware was sent to 'far-distant lands' was no exaggeration: Malagan *bacini* are found on 13th century Pisan churches; and excavations all over Europe (including England and Ireland) and North Africa of high-status 13th- and 14th-century sites have turned up fragments of Malagan lustreware.⁹

In the years after 1300 a number of Moslem potters migrated up the coast of Spain to the Valencia region, in particular to Manises. Why this

happened is not clear, but there is evidence that the local Buyl family fostered the industry in Manises and encouraged Islamic potters to settle there. The term used in Spanish throughout the 14th and 15th centuries to describe lustreware is *obra de malequa*, 'Malaga ware', but Manises soon outstripped Malaga as a production centre. During the 14th century the potters developed a style eloquently blending their Islamic heritage with Christian and 'Gothic' elements.

Among the best customers of the Valencian potters were the wealthy families of Florence. Archaeological finds from Tuscany, documentary evidence, and numerous surviving lustrated dishes and jars with the arms of Florentine families¹⁰ testify to the long-lasting fashion in Tuscany for Spanish lustrewares. For most of the 15th century, if members of a grand Florentine family wanted prestige pottery, the most natural thing to do was to order it from Spain,¹¹ perhaps through one of the Florentine merchant companies that maintained agents in Valencia. Occasionally we have archival record of such commissions: documents in the archive of the 'Merchant of Prato', Francesco di Marco Datini, record him in 1401-2 arranging the import of Valencian lustreware into Venice,¹² and the inventory of a Pisan merchant made in 1480¹³ lists a quantity of Valencian dishes bearing his arms. The shield shapes on most armorial examples are characteristic of Italian, rather than Spanish, heraldry: evidently, Florentines sent drawings of their arms for Moslem potters to copy; just as, three centuries later, European aristocrats sent bookplates to China to be copied onto export porcelain.

The phrase used in the 1480 inventory and constantly to describe imported lustrewares in Italian documents is *lavori di maiolica*. *Maiolica* is the medieval Italian name for Majorca, which lies not far off shore from Valencia and was a trans-shipment point for Western Mediterranean trade. There is no good evidence that lustre was made in Majorca in the late Middle Ages, and it has been suggested that the currency of the term in Italian arose from a misunderstanding by Italians of the Spanish *obra de malequa*.¹⁴ Confusion there may have been, and a philological study of the early uses of the word would be of interest; but Italian documents tend to spell the word in such a way as to suggest that the writers are thinking of the island. Alberti was not alone in supposing that lustre was actually made in Majorca.

Whatever its origin, *maiolica* to 15th century Italians meant lustreware imported from Spain; and later, when Italians themselves learnt to make lustreware, *maiolica* was the word used to describe these products. Not till after the middle of the 16th

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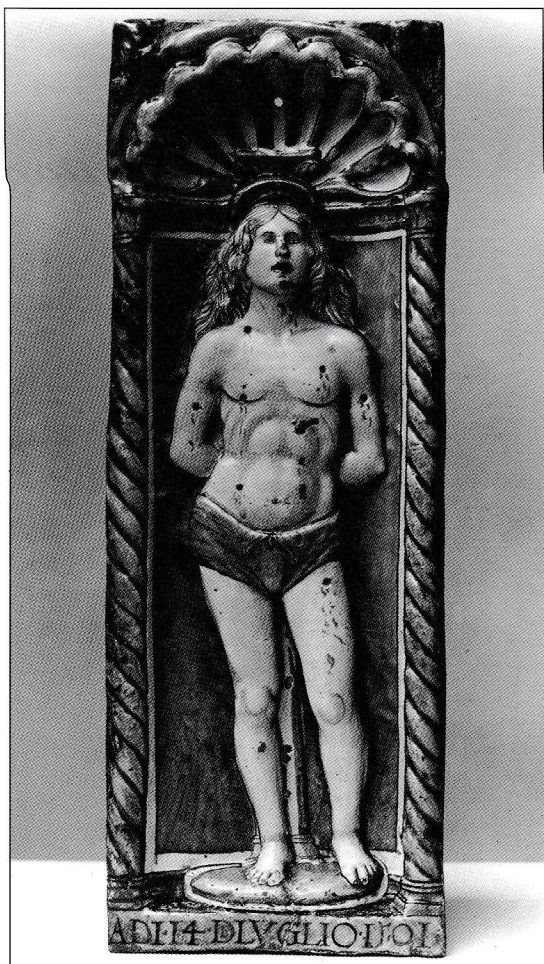


Figure 3. Saint Sebastian. Perhaps Deruta, dated 1501. Victoria and Albert Museum.

century did it generally take on its modern meaning describing tin-glazed pottery, whether lustred or not.¹⁵ The difficulty, when it is found in earlier documents, is to work out whether the reference is to Spanish- or Italian-made pieces.

The brilliance of Spanish lustreware suffices to explain how it not only won export markets but helped to establish European esteem for pottery on a new level. So far was it beyond imitation by most Italian potters in the mid-15th century that some decrees issued by Italian cities to protect local pottery industries specifically allow the import of Spanish lustreware: for example, a Venetian decree in 1455 banned pottery imports with the exception of work of *maiorca e da Valenza*.¹⁶ Though too little work has been done on the economics of the Renaissance pottery industry, it is clear that imported lustreware was valued much more highly than local pottery.¹⁷ Several types of mid- and late-15th century Italian

pottery imitated Valencian motifs without being able to reproduce the lustre.

Apart from its technical brilliance, there was perhaps another element in the fascination cast by Valencian lustrewares throughout Europe – alchemy. A principal aim of medieval magic and science was the search for the ‘philosopher’s stone’, which could turn base substances into gold. When medieval and Renaissance writers mention lustreware it is gold that they think of. Cipriano Piccolpasso, in his *Three Books of the Potter’s Art* (c. 1557), writes of Gubbio lustre: ‘and when the work comes out well, it seems like gold’.¹⁸ For the medieval European, there was a precise sense in which lustreware may have seemed magical – golden pottery without the use of gold. Vannuccio Biringuccio of Siena, in his treatise on metallurgy (1540), wrote that: ‘The principal basis [of pottery] is derived from two things – the art of drawing and various secrets and alchemical mixtures’.¹⁹ If ordinary pottery could seem alchemy, far more so lustreware.

Occasional attempts were made in the 15th century to apply real gold to pottery, principally in the Della Robbia workshop in Florence. The earliest instance may be the ceramic mosaic on the tomb of Benozzo Federighi, Bishop of Fiesole, which was installed 1454–1459 in the church of San Pancrazio in Florence (and is now in Santa Trinità); it contains ceramic mosaic panels some of which have gold on them.²⁰ Later in the century, altar vases with simulated flowers became a regular part of the workshop’s production; some retain traces of gilding.²¹

An exceptional example of gilding is a jar once in the Pringsheim Collection and now in the Boymans-van Beuningen Museum in Rotterdam²² (fig. 2). It is of the Florentine ‘relief-blue’ type made from the late 14th to the mid 15th century. The heraldic griffin on the front is set against a ground which appears to be fired gold. In the 1914 Pringsheim catalogue, Otto von Falke quoted in connection with this jar an agreement dated 1454 in which Isacco dei Dondi instructed a Faenza potter to supply him with a service of pottery ‘of fine white maiolica with beautiful and attractive painting around and beneath and in the centre my arms in gold’.²³ This might be a unique instance outside Florence of gold applied to pottery at this date, but is probably a cautionary tale. The document was published in 1880 by Carlo Malagola.²⁴ His source was the Venetian Giuseppe Maria Urbani de Gheltof, whose property Malagola says the document was, and whom he thanks for the transcript. The supposed original has not, I think, been seen since. Urbani de Gheltof is now suspected²⁵ of a bizarre programme of inventing art-historical documents and the Dondi

document, with its anachronistic-looking use of the word *maiolica*, was surely a fake. The Rotterdam jar looks to me genuine and in substantially original condition, but its uniqueness is curious.

Gold, even if occasionally used with success, was expensive. The real economic advantage lay in pottery which gave the impression of gold, without its expense. It is clear that by about 1480, there was economic incentive for Italian potters to master the technique of lustre. When and where was this step taken?

The history of Renaissance lustreware is dominated by Deruta and Gubbio, but there were other places in north-central Italy where lustreware was made in the late 15th or early 16th century, including Cafaggiolo to the north of Florence,²⁶ and perhaps Orvieto and Montelupo.²⁷ Artisans were mobile; once men in Italy knew the valuable technique, there is every reason to suppose they would have travelled with the knowledge. What was required for successful production was not only technical expertise, but also the economic circumstances to make production profitable.

One place where the technique was apparently tried out, then abandoned, was Faenza, which was pre-eminent technically through the Renaissance. Giuseppe Liverani in 1968 published locally-found lustred fragments with characteristic Faenza motifs, relics of lustre experiments about 1500. Recently, Carmen Ravanelli Guidotti has published other fragments of lustre found in the city, which look earlier – perhaps from the 1450s or 1460s.²⁸

Some fierce debates between Italian maiolica historians have concerned lustre in the Adriatic port of Pesaro. Ever since Giambattista Passeri's book on Pesaro maiolica (1758), the identification of it has been contentious. Only recently has the publication of documentary and archaeological evidence put the argument on a sensible basis and demonstrated that Pesaro was one of the great maiolica centres of the late 15th century.²⁹ Alessandro Bettini has recently published two lustred bowls found in Pesaro, which he argues convincingly to be local production, and to which he assigns a date before 1500.³⁰ However, these modest examples do not easily lead to attributing many more ambitious examples, and there is no conclusive dating evidence. Here too, lustre seems to have been an experiment that did not 'take' on a large scale.

The most productive centre of Renaissance lustreware was Deruta: there were perhaps as many kilns making lustre in 16th-century Deruta as in the rest of Italy put together. Our knowledge of the early history of Deruta lustreware was transformed by the publication in 1987³¹ of the first results of an archival research project in the nearby city of Perugia.³² The

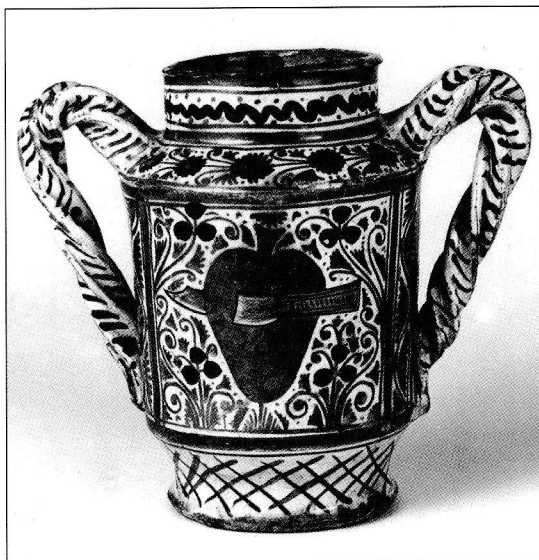


Figure 4. Perhaps Deruta, c. 1470–80. Musée du Louvre.

documents indicate that in the years around 1500 one family, the Masci, dominated production in the town. In a tax return in 1498, they stated that they 'practise and have practised the art of pottery and *maiolica* in Deruta, and their beautiful and unheard-of work is sold throughout the world, and the city of Perugia derives glory from this and grows in fame, and all wonder to see the said *maiolica* wares'. The first document mentioning the Masci as makers of *maiolica* is from 1496, but they may have been making lustre for some time before that and seem to have had a monopoly around 1500. If so, the earliest known dated piece of Italian lustreware, a relief of Saint Sebastian in the Victoria and Albert Museum (fig. 3), which bears the date *ADI 14 DE LUGLIO 1501* (14 July 1501), may be a product of their kilns. I have not myself seen in Deruta locally-excavated fragments similar enough to the Saint Sebastian to prove that it was made in Deruta; but such is the opinion of those Italian specialists who have studied the material most intensively³⁴.

More certain is the attribution to Deruta of the next-earliest dated piece of Italian lustreware, a spouted pharmacy jar in the British Museum, dated 1502.³⁵ This belongs to a splendid series of jars (the others unlustred) which bear a moor's head device, made for a pharmacy that has so far eluded identification.

Perhaps the earliest piece of Deruta lustreware surviving intact is an albarello in the Louvre³⁶ (fig. 4). On one side are arms that may refer to the Baglioni of Perugia. This albarello, the decoration of which harks back to Valencian lustreware, looks unlikely to be later than about 1480.

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An ingenious argument has recently been proposed to push back the beginnings of lustre in Deruta. In 1465 an edict banned the bringing of broom and brushwood within the town walls of Deruta except on the day immediately preceding kiln-firings. Giulio Busti of Deruta, who is a potter as well as a pottery historian, has pointed out that the potter's only use for broom, which burns smokily, is for lustre firings.³⁷ The document therefore tends to prove that lustre was already being made in the town.

Piccolpasso says of lustre: 'It is a treacherous art, so that often of a hundred pieces of work scarcely six come out well'. If it was really so difficult, there must have been a substantial price premium. Documents suggest that in supplies of pottery from Gubbio in 1498 lustreware was priced in the order of ten times day-to-day wares; while in a Deruta



Figure 5. Hercules and Antaeus. Workshop of Maestro Giorgio, Gubbio, 1520. National Gallery of Art, Washington.

document of 1510, lustreware was six times the price of ordinary wares.³⁸ But were these documents really comparing like with like? Sometimes near-identical designs occur on lustred and unlustrated Deruta dishes, and it is hard to believe that the lustred versions would have been six or ten times more expensive than the unlustrated ones. Twice the price seems more likely. Can the lustred jar of 1502 have been six times more valuable than the carefully-decorated unlustrated ones from the same series? If there was such a difference in price, would not the painting of lustred dishes be superior to that of unlustrated ones – which is not consistently the case? And would the typical large Deruta lustreware dishes – rarely master-

pieces of painterly sophistication – have cost more than a well-painted plate of Urbino *istoriato*? Until we can answer such questions, we have not begun to understand the economics of the lustre business.³⁹ In general only the most elaborately-decorated pottery in the Renaissance was comparable in value with brass or Venetian glass; and not even the finest maiolica approached the price of Chinese porcelain or silver.

The history of lustreware in Gubbio has always been regarded as the story of one man, Maestro Giorgio Andreoli. Giorgio was, among other things, an excellent publicist: no pottery workshop had ever marked its products as consistently as he did. The earliest piece bearing his workshop mark is a dish now in The Hague dated '18 March 1518'.⁴⁰ From then onwards, the production of the workshop can be followed closely, thanks to the abundance of marked and dated pieces. These include some of the earliest dated pieces of Italian *istoriato*, such as fig. 5⁴¹. Several good *istoriato* painters can be identified on Gubbio lustreware in the 1520s, in a style close to Urbino-district maiolica. Painters from Urbino and Castel Durante travelled to Gubbio to work for Maestro Giorgio: we have, for instance, documentation that Giovanni Luca, an *istoriato*-painter from Castel Durante, worked for him in 1525; and Francesco Xanto Avelli may have done so as early as 1524.⁴² It may be, too, that some unlustrated *istoriato* was produced in Gubbio in the 1520s.⁴³ From about 1532 there is reason to believe (even though it might seem easier to bring a maiolica painter than a cartload of pottery over the mountains) that certain plates were taken to Gubbio, after being painted and twice fired in Urbino, to have lustre added in Giorgio's workshop. A plate now in Bologna (figs 6, 7), probably painted in Urbino, is dated 1532 and marked *M^o G^o fini de maiolica*, 'Maestro Giorgio added the lustre'.⁴⁴

Archival discoveries have shed light on the beginnings of lustre in Gubbio, but have thrown up new problems. We now know that Giorgio came from Pavia and was in Gubbio by 1489; in that year he and his brother Salimbene made a partnership with a Gubbio potter named Giacomo Paolucci. In 1495 a contract between them was signed for the collaborative manufacture of 2500 pieces of pottery, some or possibly all of it *maiolica*; subsequently Giorgio superseded Paolucci as the dominant potter in Gubbio, and came to be known as *Maestro Giorgio delle maioliche*.

This raises two questions. First, was Paolucci producing lustreware himself before Giorgio's arrival in Gubbio, or did Giorgio bring the technique? Tiziana Biganti, who published the key documents, concludes that lustreware was known in Gubbio

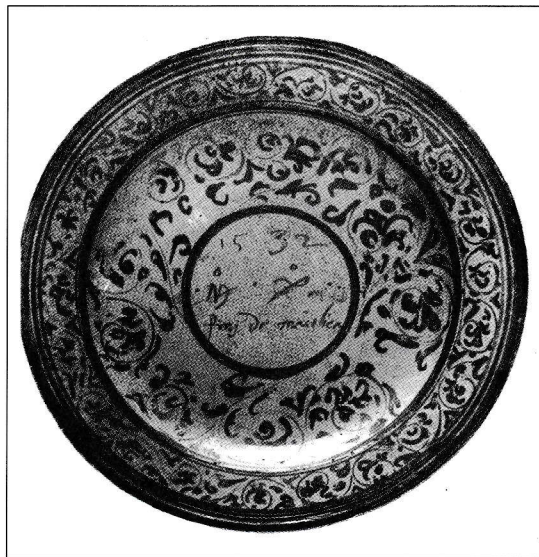
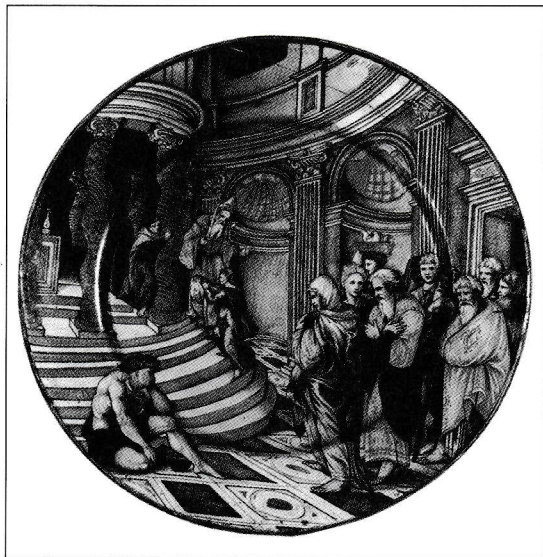


Figure 6,7. The Presentation of the Virgin in the Temple. Probably Urbino, lustred in the workshop of Maestro Giorgio, Gubbio, 1532. Museo Civico Medievale, Bologna.

from around 1480, before Giorgio's arrival,⁴⁵ but she does not give her evidence. On the other hand, a petition to Guidobaldo II, Duke of Urbino, from Giorgio in old age, in 1551, claims that he was induced by Guidobaldo I to come to Gubbio because he was already *eccellente ne l'essercitio delle majoliche*.⁴⁶ People are not always reliable in official tax petitions; but until the proper publication of all the documents, the matter cannot be resolved. It has been thought⁴⁷ that a passage in an edition of Vitruvius published in Como in 1521 indicates that lustre was made in or near Pavia (and therefore that Giorgio may indeed have brought the secret to Gubbio). In fact the passage concerned is so obscure that it seems unwise to base anything on it; since the text is not easily available, it is here transcribed (Appendix) from the 1521 edition.

The second question is, if Giorgio was making lustre for some 25 years before 1518, where is his early production? It seems possible that some lustred work normally attributed to Deruta is actually early work of Giorgio, or by Paolucci. The question is rendered difficult by the lack of fragments from Gubbio published or available for study. It is a problem characteristic of maiolica studies that rumour tells of significant finds belonging to local collectors, but because the Italian state claims ownership of anything found in the ground, most collectors do not let anyone – least of all museum officials – see them. Gubbio lacks someone like certain enthusiasts in Pesaro and Deruta, to collect and study fragments found in the town. Systematic archaeological excavation would be better, but even the casual

gathering of fragments from building sites can be valuable.

There is much to be said for reconsidering attributions to Gubbio proposed by the Victorian scholars J.C. Robinson and C.D.E. Fortnum.⁴⁸ As long ago as 1856 Robinson hypothesized an 'early master who preceded Maestro Giorgio at Gubbio'. In the light of current work, the old attribution of pieces with red and golden lustre like *fig. 8*⁴⁹ to Gubbio may prove to have been correct⁵⁰.

A further unresolved problem is the manner in which Italian potters first discovered how to make lustre. We have seen there was a commercial incentive to rival Hispano-Moresque imports, and that several towns may have contained potters able to make lustre by the 1480s. Piccolpasso tells us that the construction of lustre kilns was so valuable a secret that potters built them in 'locked and well-guarded houses'.⁵¹ Giulio Busti thinks that the technologies of Spanish and Italian lustre are so similar, yet so complex, that the technique is unlikely to have been rediscovered independently in Italy. It may be that Italian potters went abroad and learnt the technique, but the only documentary record of industrial espionage of this sort is after 1500.⁵² There is little documentary evidence of Islamic potters working in mainland Italy at this date, but there may well have been some. Alan Caiger-Smith has noted that Spanish tile makers were working for Pope Alexander VI (Borgia) in the 1490s; but the new evidence that lustre was being made in Italy well before 1490 militates against the idea that they taught lustre to Italians.

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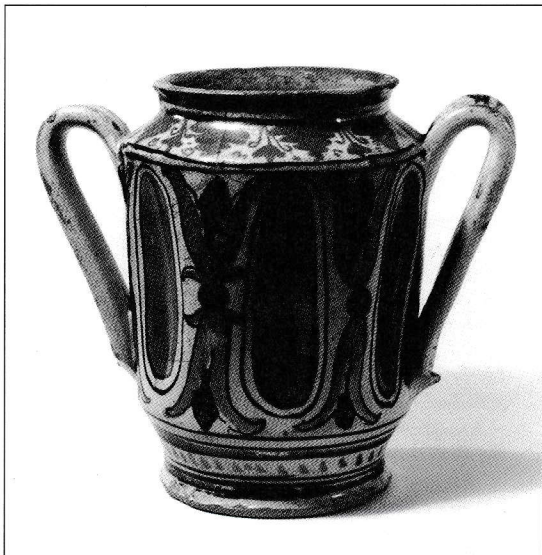


Figure 8. Gubbio or Deruta, c. 1490-1510. Ashmolean Museum, Oxford.

In summary, we do not know when or where lustre was first made in Italy, nor how the discovery was made, nor enough about the economics of the industry; however, recent research has shown that it was being made earlier, and that knowledge of the technique was more widespread, than used to be thought. It is likely that archaeological and archival work in Italy in the next few years may answer some of the remaining questions.

APPENDIX

Vitruvius, *De Architectura*, ed. Cesare Cesariano, Como 1521, fol. cxiii(r):

...aut terra coctilia de opera figulina vel como si solea del opera ad Tiburtina regione di Roma quale opera dice Vitruvio sono diligentemente da excogitare: acio non habiano le lacune di concavita. Impero che haveano chi da la natura: & chi dal arte varia delectatione de colori compositi: si como etiam ad noi hora si fano li vasi di terra egregiamente pincti: & vitreati como si fano in la Romagna: & in alcuni loci de la Marchia Anconitana. Ma la natura havendo di questa terra commixta in varii loci del mundo: si como etiam ha facto de li minerali metalli: li nostri & li Papiensi figuli: hano trovato di questa in molto loci proximi: & vicini al fiume Po. Quale terra alias non si credea fusse nisi in adamasco regione de mori. Et perho havendo trovato li nostri figuli di questa fano vasi di tante varie: & eccellente sorte che a molti dilectano per le egregieta de le vitreate picture piu che non fa vedere lo colore aureo: vel argenteo: Qualilicet siano di maxima praeciositate si como etiam le pietre: et margarite

praeciose che per epsi ogni cose si operano: Tamen non essendo se non de uno semplice colore: pare non siano ala intuitione de li ochi tanto dilectevoli al animo quanto sono quisti lucidissimi pincti & vitreati vasi: sopra li quali li colori universali facti di varii metalli: & praecipue li piu belli non si pono fare senza lescorie di auro: et argento si como etiam si pon videre le foglie seu laminelle tenuissime quale sopra le sufumigatione con varie polvere: & combustione recevano li colori di ogni sorte di pietre praeciose che in se hano limpida & diaphana coloratione.

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Gubbio

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P. Mattei and T. Cecchetti, *Mastro Giorgio, l'uomo, l'artista, l'imprenditore*, Perugia 1995.

C. Fiocco and G. Gherardi, *Museo Comunale di Gubbio. Ceramiche*, Perugia 1995.

Pesaro

P. Berardi, *L'antica maiolica di Pesaro*, Florence 1984.

G. Gardelli, 'Il problema dell'oro nelle maioliche metaurensi alla luce del Bando di Guidobaldo II Feltrio della Rovere, del 1569', *VI Convegno della Ceramica. 2a Rassegna Internazionale*, Pennabilli 1985, pp. 65-81.

A. Bettini, 'I lustri a Pesaro', *Faenza* 78 (1992), pp. 82-86.

Cafaggiolo

G. Cora & A. Fanfani, *La maiolica di Cafaggiolo*, Florence 1982.

A. Alinari, 'Un piatto araldico ed il problema dei lustri a Cafaggiolo', *Ceramica Antica* anno 1, no. 3 (March 1991), pp. 24-33.

Faenza

G. Liverani, 'Ancora sul lustro metallico a Faenza', *Faenza* 54 (1968), pp. 3-8.

C. Ravanelli Guidotti, 'La ceramica a Faenza nell'età dei Manfredi: botteghe, produzione comune e vasellame celebrativo', in *Faenza nell'età dei Manfredi* (by various authors), Faenza 1990, pp. 149-203.

C. Ravanelli Guidotti, 'Prove di lustro a Faenza', *Ceramica Antica* anno 5, no. 5 (May 1995), pp. 38-47.

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NOTES

1. Leandro Alberti, *Descrittione di tutta Italia* (Bologna, 1550), fol 85v.: *Scendendo adunque alla riva de'l Tevere vedesi Druida, Castello pieno di popolo, posto alla costa de'l Colle sopra lo Tevere, & si è passato il Ponte di Pietra posto sopra lo Tevere, per cui si passa da Perugia a questi luoghi, se dice in Latino questo Castello (secondo alcuni) Dinuta. Non ritrovando memoria di detto luogo appresso di anticho scrittore, credo che'l sia nuovo. Sono molto nomati li Vasi di terra cotta quivi fatti, per esser talmente lavorati, che paiono dorati. Et anche tanto sottilmente sono condutti, che infino ad hora no si ritrova alcun artifice nell'Italia, che se li possa agguagliare, Benche assai sovente habbiano isprimentato & tentato di far simili lavori. Sono dimandati questi Vasi di Magiorica, perche primieramente fu ritrovata quest'arte nell'isola di Magiorica, & quivi portata.*
2. Wilson 1987, no.16, with the main previous literature.

- The jar may be one of the 2 *orcioloni grandi con dua manichi da Maiolicha, con l'arme* listed as at the Medici villa of Careggi in the inventory taken after Lorenzo's death, M. Spallanzani and G. Gaeta Bertelà, *Libro d'inventario dei beni di Lorenzo il Magnifico* (Florence 1992), p.141. It may be mentioned here (since the fact was unrecorded by me in 1987) that the jar has a remarkably accomplished piece of fired and lustred restoration to the foot, done at an unknown period.
3. For Lorenzo's appreciation of pottery, see G. Conti, *Ceramiche laurenziane* (Florence 1992); and for the letter from him to Malatesta in which a gift of pottery is valued 'more than if it was silver, for excellence and rarity', Berardi 1984, pp.42-45.
4. For the notion of the 'vase' as a display object, see B. Rackham, *Vases, or the Status of Pottery in Europe*, Society of Antiquaries Occasional Paper no.1 (1943); M. Vickers and D. Gill, *Artful Crafts* (Oxford 1994), chap.1.
5. For broad and sensitive studies of the technical traditions by a distinguished practising potter, see A. Caiger-Smith, *Tin-glaze Pottery in Europe and the Islamic World* (London 1973) and *Lustre Pottery* (London 1985; paperback edition London 1991).
6. G. Berti and L. Tongiorgi, *I bacini ceramici delle chiese di Pisa* (Rome 1981).
7. Quoted from Caiger-Smith 1991, pp.85-86.
8. Caiger-Smith 1991, pp.89-93.
9. For the extensive archaeological literature (particularly the work of J.G. Hurst), see the essays and bibliography in C.M. Gerrard, A. Gutiérrez and A.G. Vince (eds), *Spanish Medieval Ceramics in Spain and the British Isles*, British Archaeological Reports, International Series 610 (Oxford, 1995).
10. See Wilson 1987, p.28, for the archaeological and documentary literature.
11. A glance through G. Cora, *Storia della maiolica di Firenze e del contado secoli XIV e XV* (Florence 1973) shows how rare examples of 'relief blue' (*zaffera*) jars or other types of early- or mid-fifteenth century Florentine pottery with the arms of great local families are: the dish at Sèvres (Cora, pl.123) is exceptional. For the wing-handled Tuscan vase now in Detroit (Cora 1973, pl. 165), perhaps made for the marriage of Lorenzo de' Medici and Clarice Orsini (1469), see T.H. Wilson, 'Maioliche rinascimentali amorate con stemmi fiorentini', *L'araldica. Fonti e metodi. Atti del Convegno, Campiglia Marittima 1987* (Florence 1989), pp.132-3; and for its likely identification in a Medici inventory, M. Spallanzani, 'Il vaso Medici-Orsini di Detroit in un documento d'archivio', *Faenza* 60 (1974), pp.88-90.
12. Spallanzani 1978, pp.529-41. For Francesco di Marco, see I. Origo, *The Merchant of Prato* (London 1957), but Spallanzani (note 33) indicates that Origo (p. 98) is mistaken in thinking Datini ordered pottery made on the island of Majorca.
13. Spallanzani 1986, pp.164-70.
14. Caiger-Smith 1991, p.127.
15. See T.H. Wilson, 'Maiolica in Renaissance Venice', *Apollo* 125 (1987), p.185, for a letter of 1520 which is apparently an early example of the use of maiolica in its wider modern sense.
16. A. Alverà Bortolotto, *Storia della ceramica a Venezia* (Florence 1981), p.18 and note 54.

17. Spallanzani 1978, 1986.
18. *Glie arte fallace che spesse volte di 100 pezzi di lavori affatiga ve ne sono 6 buoni. Vero è che l'arte in se è bella et ingegniosa, e quando gli lavori so' buoni paiano di Oro*: C. Piccolpasso, *Tre libri dell'arte del vasaio*, ed. R. Lightbown and A. Caiger-Smith (London 1980), II, p.90.
19. Vannuccio Biringuccio, *Pirotechnia* (Venice 1550) fol.145r-146r: 'Discorso sopra l'arte figulina, con alcuni suoi secreti':
Il suo principal fondamento ha due derivationi: una, che vien dall'arte del disegno: l'altra, da varii secreti & alchimiche mistioni... Compare the Persian treatise by Abu'l Qasim (1301) cited by Caiger-Smith 1991, p.73, where pottery is described as 'a kind of alchemy'.
20. For the debate about the technique of the gold on the Federighi tomb, see G. Ballardini, 'Sulla tomba robbiana del vescovo Federighi (1455-1459)', *Faenza* 17 (1929), p. 13; Cora 1973 (cited in note 11), I, p.175; J. Pope-Hennessy, *Luca Della Robbia* (Oxford 1980), p.244; Biavati 1986, p. 14; G. Gentilini, *I Della Robbia. La scultura invetriata del rinascimento* (Florence [1992]), I, p.129.
21. Cora 1973 (cited in note 11), I, pp.181-89.
22. O. von Falke, *Die Majoliksammlung Alfred Pringsheim* (The Hague 1914-23, second edition, Ferrara 1994), I, no.2; Museum Boymans-van Beuningen, *Kunstnijverheid Middeleeuwen en Renaissance* (Rotterdam 1994), p.174.
23. *De maiolica bianca fina... che deno essere de bona tera et havere atomo et socto bele e vaghe dipinture et al mezzo le mie arme cum oro*.
24. C. Malagola, *Memorie storiche sulle maioliche di Faenza* (Bologna 1880), pp.427-8.
25. G.B. Cervellini, 'Per una revisione di G.M. Urbani de Gheltof', *Civiltà Moderna* 11, no.4-5 (1939), pp.291-301.
26. I know of no criterion for dating the surviving examples of Cafaggiolo lustreware, but the workshop was only established in 1498, so it cannot have been among the earliest producers.
27. For the case that lustreware in the Deruta style was produced in Orvieto in the early sixteenth century, see A. Satolli, *La ceramica orvietana nel Quattrocento e nel Cinquecento* (Orvieto 1992), pp.35-36. I have not myself been able to study the archaeological evidence for this; nor for the assertion that certain fifteenth-century fragments of lustreware found at Syracuse were made locally by immigrants from Spain: A. Ragona, *La maiolica siciliana dalle origini all'ottocento* (Palermo 1975), p.48; and *Atti del XIII convegno internazionale della ceramica, Albisola 1980*, pp. 288, 295. I thank Hugo Blake for informing me that there is evidence of lustre experiments at Montelupo.
28. Liverani 1968; Ravanelli Guidotti 1990 and 1995.
29. Berardi 1984; G. Albarelli, *Ceramisti pesaresi nei documenti notarili dell'Archivio di Stato di Pesaro* (Bologna 1986); A. Bettini, 'Le maioliche della discordia', *Ceramica Antica* anno 1, no. 2 (February 1991), pp.12-18.
30. Bettini 1992. Having seen these bowls, I am inclined to agree that they are distinct from the production of Deruta and Gubbio.
31. Biganti 1987.
32. Biganti 1987, 1992.
33. B. Rackham, *Victoria and Albert Museum. Catalogue of Italian Maiolica* (London 1940), no.437.
34. Fiocco and Gherardi 1988-89, I, p.83.
35. Wilson 1987, no.139.
36. J. Giacomotti, *Les majoliques des musées nationaux* (Paris 1974), no.92; Fiocco and Gherardi 1988-89, I, pp.54-55.
37. Busti in Fiocco and Gherardi 1988-89, II, p.639.
38. Biganti 1987, pp.218, 214.
39. The arrangements under which a few pieces only of large Urbino istoriato sets were lustred in Gubbio remain obscure; see Wilson 1993, p.166.
40. G. Ballardini, *Corpus della maiolica italiana* (Rome 1933-38), I, no.67, figs 64, 256.
41. The Washington plate (Wilson 1993, pp.169-172) is by the same painter as a lustred piece in the Petit Palais in Paris, also dated 1520; this has an inscription on the back with the mark of Maestro Giorgio, which is in blue, that is in the second firing. This means the plate must have been painted in Gubbio: C. Join-Dieterle, *Musée du Petit Palais. Céramiques* (Paris 1984), p.54. On the reverse are the letters BDSR: who BDSR was, if he was the painter, is one of the great unsolved mysteries of early istoriato maiolica. For the attribution of other works to this painter see Wilson 1993, p.171; Fiocco and Gherardi 1995, p. 35.
42. J.V.G. Mallet, 'A maiolica plate signed "FR"', *Art Bulletin of Victoria* (Melbourne) 1976, pp.11-12; and in *Burlington Magazine* 129 (1987), p.332.
43. For example the dish in the British Museum, Wilson 1987, no. 189; Catherine Join-Dieterle noticed that the pattern on the reverse resembles that on the plate in the Petit Palais mentioned in note 41.
44. C. Ravanelli Guidotti, *Ceramiche occidentali del Museo Civico Medievale di Bologna* (Bologna 1985), no.102; on the attribution to Nicola da Urbino see Wilson 1993, p.165, note 2.
45. Biganti 1987, p.212; Wilson 1993, p. 165.
46. Wilson 1993, p.165; and most recently Fiocco and Gherardi 1995, p.28.
47. Liverani 1940.
48. C.D.E. Fortnum, *A Descriptive Catalogue of the Maiolica... in the South Kensington Museum* (London 1873), pp. 185, 229; following J.C. Robinson, *Catalogue of the Soulagés Collection* (London 1856), p.4.
49. C.D.E. Fortnum, *Descriptive Catalogue of the Maiolica... in the Ashmolean Museum, Oxford, Fortnum Collection* (Oxford 1897), p.68, no.C428.
50. Since the lecture on which the present article is based was delivered, there has appeared a magisterial essay on Gubbio lustre by Carola Fiocco and Gabriella Gherardi (1995), who illustrate certain lustred fragments found locally; they also make the convincing suggestion that a dish in the Louvre (Giacomotti 1974, no. 524), apparently signed *Giacomo*, is by Paolucci and propose attributions of other Deruta-type wares to Giorgio.
51. Piccolpasso 1980, II, p.89.
52. According to a Sienese chronicler, a Sienese potter called Galgano di Belforte went to Valencia, dressed as a poor workman, and spied on the potteries until he had learnt the lustre technique; he is recorded as coming back to Siena in 1514. The archaeological record has not, as far as I know, produced any evidence of lustre production in Siena, but, given its links to Deruta, it may still turn up. It is odd that, if all he wanted was to learn lustre, Galgano did not go to Deruta: perhaps Deruta potters guarded the technique too carefully to be taken in by a man from Siena. See G. Guasti, *Di Cafaggiolo e d'altre fabbriche di maiolica in Toscana* (Florence 1902), p.324.