

# The ceramic hoard from Pula (prov. Cagliari) and the Pula type of Spanish lustreware

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*To the memory of my father,  
Martin William Blake (1903-1984)*

## PREFACE

An earlier version of this paper was first submitted in June, 1982, for publication in the proceedings of the *II Coloquio Internacional de Cerámica Medieval del Mediterráneo Occidental* held at Toledo in November, 1981. As no information was forthcoming about its appearance, permission was sought and granted in October 1984 to publish the paper elsewhere. A revised and more extensively illustrated version was completed in October, 1985, for publication in Italy as a monograph. At short notice this second edition has now been withdrawn unaltered for printing in these proceedings.

I visited Sardinia in 1973 during my tenure of a Leverhulme Research Fellowship at the British School at Rome. I am grateful to the following for their help on that occasion: Janet Buerger for measuring and colour coding the Pula group and for drawing 4, 34-35, 39, 102-104 and 114; Arch. Renato Salinas, soprintendente ai Monumenti e Gallerie, for access to the National Museum in Cagliari whilst it was closed; Prof. Dr Ferruccio Barreca, soprintendente alle Antichità della provincia di Cagliari, for permission to publish the find (prot. n. 1551 pos. 650, dated 20 August 1973); Prof. Dr. Ercole Contù, soprintendente alle Antichità per le provincie di Sassari e Nuoro, Dr. Benito Serra and Padre Bonifacio Salice for showing me material at S. Pietro di Sorres; and Prof. Dr. Angela Terrosu Asole for that from S. Pietro Paradiso.

A tour of Spanish museums in 1977 was generously financed and arranged by the British Council through the good offices of George Sanderson and Peter Harrison, the Representative and Assistant Representative in Madrid. I owe the invitation and the programme of visits to Juan Zozaya of the Museo Arqueológico Nacional, Madrid. I am also indebted to the following for showing me pottery in their care: Don Fernando Ochotorena (Almería), Dra Angela

Mendoza Equaras (Granada), Dr Rafael Puertas (Málaga), Dr José Antonio Melgares Guerrero and Prof. Anna Maria Munoz (Murcia); and to Dr Puertas for permission to publish Pl. 14. In 1984 Josefa Pascual and Javier Martí kindly gave me a copy of their then unpublished dissertation (n.d.), which is a sign that the systematic work so far mainly applied to early Islamic wares (e.g. ROSSELLO BORDOY, 1978; BAZZANA, 1983) is again being undertaken in Spain on the later medieval types.

I thank too my Italian colleagues: Padre Floriano Grimaldi for assistance at Loreto in 1973 and for supplying measurements of nos 425-426 (Pl. 19); Otto Mazzucato of the Rome museum for showing, and discussing with, me the hospital of S. Giovanni in 1976 and for permission to reproduce unpublished photographs of S. Maria Maggiore for which he also supplied the measurements (Pl. 16, nos 9, 11, 29, 31); Franco D'Angelo for clarifying some Sicilian finds in 1975 and for a copy of his 1982 paper in advance of publication; Sergio Nepoti for slides of the cupola at Toledo; Clelia Alberici for permission to publish, and Grazia Biscontin for the measurements of, the bowl in Milan museum (Pl. 15, no. 1517); Giovanni Fowst for drawing my attention to the publication of the find at Moscow; and Francesca Porcella, who is studying the Pula find for the catalogue of the National Gallery at Cagliari, for generously supplying me the documentation of the pottery found at Settimo San Pietro, information on the plain glazed bowls, the inventory numbers and photographs, some of which are reproduced on Pls. 1-9 (all except nos. 33R, 36, 38, 40-41, 101-102, 106). For this version additional photographs have been kindly supplied by: the Archivio Fotografico dei Civici Musei of Milan (Pl. 15, no. 1517); Graziella Berti (Pl. 15, no. 618); Janet Buerger (Pl. 19, nos. 1, 4, 6); Franco D'Angelo (Pl. 17, nos. 990-993); Tiziano Franzi (Pls. 11-13, nos. 1-4, 15-16, 19, 26, 39, 30); Pa-

dre Floriano Grimaldi (Pl. 19, nos. 425-426); and Otto Maz-zucato (Pl. 15, nos. 2, 6, Pl. 16); and have been copied from GABRICI-LEVI, 1932: fig. 44 (Pl. 17, nos. 44C, 44R).

In England I have benefited from the encouragement of John Hurst, assistant-chief inspector of Ancient Monuments, London, who has kept me informed of his research in northern Europe; from the help of the following British Museum staff: Tim Wilson, who showed me material from Ephesus; and Mike Hughes, who informed me of his research prior to publication; and from the support of the Department of Classics and Archaeology of Lancaster University, whose members Phil Howard prepared the illustrations and Janet Atkins typed the text.

Some of the metric equivalents of apparently rounded imperial measurements given in Chapter 3 may not be as precise as the figures imply. The place where unprovenanced vessels are kept is reported according to the publication cited. Pots in private collections are likely to have changed hands; and in some cases public items may now be exhibited in a different museum.

## 1. INTRODUCTION

The pottery from Pula in Sardinia (Fig. 7) has been called the most important and largest group with which to define the documented but otherwise little-known lustreware production of 14th-century Valencia (OLIVAR DAYDI, 1952: 124-5). Almost every historian of Spanish medieval pottery has discussed the find. It is thus surprising to discover that only one scholar has ever claimed to have seen the material (GONZALEZ MARTI, 1944: 333; cp. VAN DE PUT, 1947a: 287; OLIVAR DAYDI, 1952: 125). González Marti's account is, however, incomplete and incorrect. It also seems that he was unaware of the original report describing the circumstances of the find. Later writers have derived their information from him, and Olivar Daydi has furnished additional erroneous descriptions and measurements. This paper can therefore claim to be the most complete and accurate record so far published; but, as it is based on a brief visit to Sardinia over ten years ago, there is still a need for a more definitive account arising from a closer acquaintance with both the vessels and their early documentation.

## 2. THE PULA FIND

The group was first reported by Nissardi in 1897, the year following its discovery during the widening of a lane leading to Pula's grain store. Beneath the road make-up a stone-lined rectangular trench was found under the lee of a house (Fig. 1). The pots and two glass flasks had been carefully piled in the space, 80 by 35 cm deep, formed by the coffer (Fig. 2). The ceramics were of two kinds: ordinary «local» lead-glazed earthenware and «foreign» lead- or tin- glazed wares, decorated in blue and lustre and in one case with a black coat-of-arms on a yellow ground (34). Four jugs (30, 31, 36, 38) and six bowls (6, 9, 11, 22, 28-29) can be recognised in the sketches published by Nissardi.

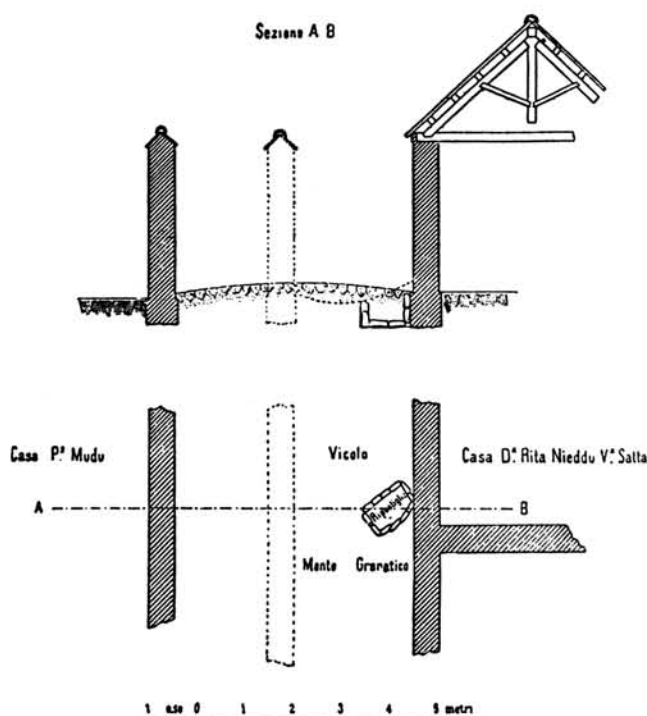


Fig. 1: Pula: plan and section of street where pottery cache was found (marked *ripostiglio*; from NISSARDI, 1897: 281).

The material, now in the Pinacoteca Nazionale at Cagliari, was accessioned in 1901 as 58 items of which 18 were complete, 10 rather fragmented and 30 more or less fragmented. It has been noted in a smaller hand that some are insignificant fragments (Inventario, Soprintendenza alle Antichità, vol. 1901-1918, nos. 27337-27384). In 1973 only a glass flask (41) still bore a pertinent inventory number. Neither of the numbers legible on an undecorated jug (38), recorded by Nissardi, falls within the series assigned to the Pula donation. Since 1897 a further 27 decorated vessels have been published as from Pula. Only four of the same type as, and kept with, the Pula find have been omitted. The lustre on three of these (4, 14, 32) has faded and their decorative schemes are better represented on other pots. The only significant novelty (15) has been pieced together, presumably since the published photographs were taken as these show other vessels in an unrestored state. The plain glazed bowl (39) resembles the jugs (37-38), one of which was recorded by Nissardi. They are presumably his «local» ware. Finally, the unglazed cooking pot (40), which may not have been deemed worthy of mention, looks medieval.

The remaining pottery, stored with this apparently coherent core of vessels (1-42), consists of post-medieval types. Only the more complete examples are published here (101-114). The fragments were wrapped in tissue paper, on one of which was written «Cadalli», a name not to be found in the Touring Club Italiano's regional guidebook and automobile atlas. Recent research in preparation for the catalogue of the national gallery has established that the only other ceramic material acquired by the Pinacoteca was found in 1967 during the destruction of the 18th-century pavement of the parish church of Settimo San Pietro (Cagliari province). It was placed with the Pula group and both finds were restored in 1969 and 1971 (PORCELLA, pers. comm.).

The two post-medieval bowls with recognizable lustre decoration (101-102) resemble those found in a context in Catalonia assigned by one authority to the mid-16th century and by another to the second half of the 17th century. The lug-handled bowl form (103-104) also resembles these finds (AINAUD DE LASARTE, 1952: 131, fig. 339; FROTHINGHAM, 1951, 270-1, fig. 217). The same type has been discovered elsewhere in Sardinia at S. Pietro di Sòrres (Borutta, Sassari; Pl. 10, nos. 35-36, 38-39, 43-44). The other late bowls may be Italian. The incised ones (105-106) are of the late *graffita* type made at Pisa. The more schematic motifs have been found in early 17th-century contexts at Genoa. The marbled dish (107) may also have come from northwest Italy, but could have been produced in the 18th century (MANNONI, 1975: 83-5, type 65; 71-2, type 57). «Curdled» decoration (108) has turned up along with marbled wares but was also made recently in Tuscany (BLAKE, 1981; pl. 81; cp. FRANCOVICH-GELICHI, 1980a: no. 168). Simple slip ornament (109) was commonly applied to closed forms in central Italy (e.g. FRANCOVICH-GELICHI, 1980a: 20). The similar plain glazed wares (110-114) were made in many places including Sardinia (NISSARDI, 1897: 282). These later bowls could thus have been deposited together in the 17th or early 18th century. The only substantial uncertainty about the attributions proposed here to Pula and Settimo San Pietro concerns the plain glazed bowls (39, 110-114), which need to be more carefully examined.

Three of the late-medieval pots from Pula bear distinctive decoration which shows that they came from very different parts of the west Mediterranean. The shield on a bowl (34) described by Nissardi resembles ornament common in 14th-century Sicily. The Sicilian examples are, however, described as tin-glazed. Perhaps the lead-glazed Pula vessel is a cheaper variant (WHITEHOUSE, 1980: 79; D'ANGELO, 1980: 180-1, I.1; FALSONE, 1976: 116, fig. 10; GUASTELLA, 1976: 227; MACCARI-POISSON, 1984: 332, pl. 43b). The origins of the other two, which are both decorated in brown and green on a tin-glaze ground, are more certain. The bowl (35) is clearly the type found at Paterna on the outskirts of Valencia. The form, the side decor and the triangular motif on the base are standard. This ware is usually dated to the 14th century (GONZALEZ MARTI, 1944: 103-90; BLAKE, 1972, 60-1; PASCUAL-MARTI, n.d.: 36 form B-1, decoration 92, 99-100, 108-9, 152-3, close parallel pl. 13). The jug (36) has the distinctive form and decoration of the archaic maiolica type made at Pisa and Savona which was widely used from the mid-14th to the early 16th century (BERTI-TONGIORGI, 1977: form b, group 3 decoration; MANNONI, 1975: 108-16, type 84, cp. fig. 93.1; BLAKE, 1980: 95-6; PICON-DEMIANS D'ARCHIMBAUD, 1980: 129). When exactly this *pisano-ligure* form was first made has yet to be established. Destruction dates of 1272 and c. 1340 have been accepted as *termini ante quem* for sites respectively in Liguria and Sicily where the type has been excavated (CABO-

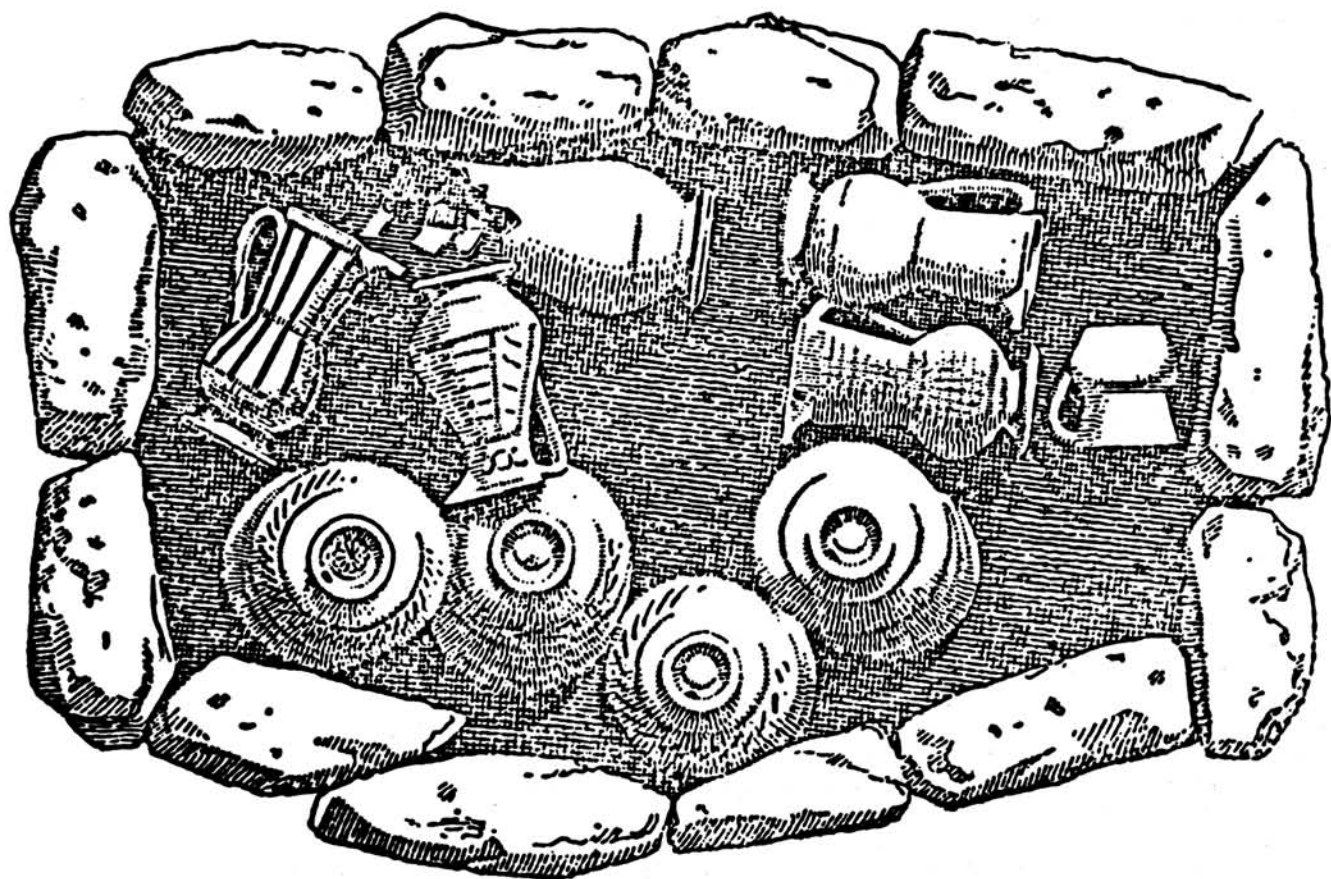


Fig. 2: Pula: pottery as found (from NISSARDI, 1897: 282).



NA *et alii*, 1980: 117; MACCARI-POISSON, 1984: 302-3, pl. 31b). At Rougiers in southern France similar jugs are known from later contexts datable to the second half of the 14th century (DEMIANS D'ARCHIMBAUD, 1980: 388, 391, fig. 382). I have found no close parallels for the plain glazed vessels (37-39) and the cooking pot (40). Nissardi (1897: 284) thought that the glass (41-42) may have come from a nearby Roman tomb. Cylindrical bottles are also known from medieval contexts (e.g. LECIEJEWICZ *et alii*, 1977: 117, fig. 109.15; FOSSATI-MANNONI, 1975: 65, no. 77).

Most of the group is made up of two forms, glazed and decorated in a similar manner (1-33). The bowls (1-29) vary in height from 46 to 70 mm and in rim diameter from 120 to 164 mm. Only five, however, are not within 10 mm of 60 mm H and of 150 mm RØ. Three (1, 14, 16) clustering near 50 mm H and 120 mm RØ are distinctly smaller. Most base diameters fall within 55 to 65 mm. The vessels noted as being relatively heavier are, not surprisingly, those with the larger dimensions (4, 6, 18, 29). The jug (30-33) heights vary from 195 to 230 mm. Because of the restoration, the fabric can rarely be glimpsed. Lighter shades of red beneath an off-white surface were observed in nine instances (2, 7, 9, 11, 19, 25, 29, 30, 33). The opaque yellowish white glaze covers both surfaces except where scarred by stilts on the inside and on the outside where it has been thinly applied or tended to crawl (2, 6, 9, 11, 18, 21, 23-24, 28, 33). The decoration was applied in a purplish-blue and occasionally a paler blue (7, 12, 21-23, 25, 30). The original colour of the lustre is difficult to assess. Darker yellow and yellowish-brown, and various brown tones now predominate often shading into olive. Reddish-brown was only observed on unusual parts of the pot (22, 30). Blue was rarely employed on the outside (4, 8, 15). The standard external ornament in lustre consisted of a band either of oblique lines or of chevrons on the wall and of a Catherine wheel placed within about half the feet.

A striking feature within the cavity are the broad blue lines, defined by lustre, used to divide up the decor on all but two of the bowls (24, 29) and of most of the jugs (31-33). The pattern on the bowls falls into three broad groups: divided or carried by radiating lines (1-9), based on a central square (10-15), or separated by one or two concentric lines (16-29). The vertical bands, grid pattern and horizontal zones on the jugs (30-33) are equivalent lay-outs adapted to the shape of the closed form. The radiating lines divide the surface into six (1-2) or eight (3-5) segments, in two cases further subdivided like an open fan (4-5). One example carries six asymmetrical leaves (6). Radial patterns are also formed by two pairs of motifs (7-8) or by four identical leaves (9). Leaves either spring from the sides of the central square (10) or are based on them (11-12). Braced squares form the centre of interlace covering the side of three bowls (13-15). The central motif in the cavity can be defined by a circle, acting as a base for radiating lines (16-20) or marking off one (21-24) or two (25-27) concentric zones on the side. Fish divide one bowl into three segments (28). Another fish overlies a circle and zone (?) lay-out (29).

Broad blue lines also mark interlaced stars, braced squares, grid patterns and an arcade (18-20, 23, 25-27), inscriptions (7, 8, 26-27), irregular interlace seemingly derived from Arabic (5, 9), leaves and leaf veins (6-11) and lie within plants (1-3, 21). Most motifs are, however, delineated in lustre in a variety of line thicknesses. Small compartments contain fine lustre motifs either stippling (27-29) or what

may be stylized arabesques (3, 6, 9, 10, 21). Prominent are the liberal expanses of lustre filling the centre (10-29, 22-27), segments (2-3, 7, 11, 13-15, 28-29) or bands (4, 9, 22-26, 33), where they act as grounds for white inscriptions or repeated motifs. Commoner are the small «pierced palmettes» (2-3, 10-14, 18, 21-22, 27) and related chevrons and loops (7-8, 10, 12-13, 15-16, 19, 22, 25-26, 29, 33), sometimes with plant-like excrescences, although others may be derived from Arabic. On the whole vegetal elements predominate, sometimes reduced to a geometric form and subsidiary to the pattern imposed by the framework of blue lines. The leaf, seen in plan and on all but one bowl veined, or the bush or tree, viewed from the side, occur in almost all the radiating designs (1-3, 6-15). Another important element is the same debased Arabic inscription which occurs in various decorative schemes (7-8, 10-11, 13-14, 26-29). The Table of decorative elements not only demonstrates the unity of the group but also suggest some divergences. For example, the correlations between chevrons applied to the outside, size and use of pale blue mayo point to the outside, size and use of pale blue may point to separate hands or batches. The other decorated pots (34-36) caution against assuming that the group came from one source.

### 3. THE PULA TYPE

The same motifs in similar arrangements are to be found on a number of singular vessels which have long been in collections. These are on the whole larger and more elaborately decorated. The most frequently published is perhaps the 140 mm high bowl owned by the Hispanic Society of America, New York, which has four small handles curled over its outward curving rim, 457 mm in diameter (FROTHINGHAM, 1936: 138; 1951: frontispiece in colour, figs. 94-5). It has been likened to three similarly shaped bowls in the Cluny Museum at Paris (FROTHINGHAM, 1951: 85-6, fig. 50). The rows of palmettes with inturned spiral terminals and the fleshy leaf forms in a field of scrolls are the only decorative elements not in the Pula repertoire. An incised lustre ship fills most of the enormous cavity of another well known bowl in the Victoria and Albert Museum, London. It flares out from a 140 mm ring base to a short upright side which is double ridged externally and 508 mm in diameter (VAN DE PUT-DICKINSON, 1906; VAN DE PUT, 1927: pl. 8 in colour). The dish, which is 80 mm high and 360 mm wide, found in London, is distinguished by narrow lustre inscriptions framed in rectangular bands (HURST, 1977a: no. 9). The large, brimmed bowl 450 mm across in the Stora collection is merely a zoned Pula bowl writ large (GONZALEZ MARTI, 1944: fig. 448). The cross pattern of truncated leaves based on a central square is reproduced on a 380 mm diameter bowl in a private collection at Valencia. Its only unusual motif is the stylized bush or tree drawn in a narrow line set in a plain oval ground, beneath the truncated leaf apices (GONZALEZ MARTI, 1944: fig. 508). A small bowl 160 mm wide has been for sometime in museums at Milan (Pl. 15, no. 1517; TORRE, 1974: fig. 2; BLAKE, 1972: 72, n. 19). Another open shape is the small bowl in Düsseldorf, 133 mm in diameter with a six-lobed side wall (Düsseldorf, 1973: no. 472).

Some of the hollow forms are also very tall. A relatively narrow-necked jug in private hands in Barcelona is 570 mm high and bears a whorl on the roof of the foot which may have faded on the Pula examples (OLIVAR DAYDI, 1952:



# TABLE OF DECORATIVE ELEMENTS

Catalogue n°	REVERSE				LAY-OUT				BLUE MOTIFS				LUSTRE MOTIFS				WHITE MOTIFS				Catalogue n°																											
	Smaller bowls	Chevrans	Catherine wheel	Oblique lines	Blue	Paler blue	Radiating		Central square	Zoned	Interlaced star	Rosette/cross	Braced squares (cp. lay-out)	Grid	Arcade	Inscriptions	Irregular interlace	Veined leaf	Plant	Fish		Bush	Flower/leaf	Veined leaf	8 petal star (cp. white)	Rayed	Arabesque	Scrolls	Grid	Chequer	Stippling	Disk fringe	Chevrans	Palmette	Bifid, loop etc.	Overlapping leaves	Inscription	8 petal star	Fan star	Cross	Hexagon	Indented line						
							Segments	Fan																																			Carriers	Plain	Braced & interlace	Radiating	2 concentric	3 concentric
1	•	•	•				∞															•	•																					1				
2			•	•			∞												•	•	•	•																							2			
3			•	•			∞												•																											3		
4					•		∞																																								4	
5			•	•									•				•		•																											5		
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TOTAL	3	13	16	14	3	6	4	2	4	3	3	8	5	4	3	5	2	2	1	4	2	5	4	2	6	5	3	1	1	5	10	5	1	4	4	1	11	13	2	8	5	2	2	1	1			

pls. 118 in colour, 124 lower left). The undulating blue interlace band on the body of a similar jug in the Metropolitan Museum, New York, 467 mm high, is also without parallel at Pula (HUSBAND, 1970: 24.6). A jug of apparently similar size to the Pula set has a more angular (Kufic influenced?) blue band on the body (FROTHINGHAM, 1951: fig. 139). Angular interlace (knotted Kufic) combined with solid lustre stars and the narrow-line stylized bush or tree is also to be seen on a drug jar 365 mm tall with an unusual obtuse shoulder and foot (LANE, 1957: pl. 2). Other jars with more acute carenations are kept in the Instituto de Valencia de Don Juan, Madrid (AINAUD DE LASARTE, 1952: figs. 72-3, 76), the Petit Palais, Paris (OLIVAR DAYDI, 1952: pl. 122, 190 mm high), the British Museum (GONZALEZ MARTI, 1944: pl. 12, H300), the Victoria and Albert Museum, London (LANE, 1957: pl. 3, H387) and in the Metropolitan Museum, New York (HUSBAND, 1970: 27, H330). The Madrid albarelli include motifs not observed at Pula, namely fleshy (leaf derived?) interlace in a field of scrolls, a seemingly different Arabic inscription set in a solid lustre oval, angular braided bands or ribbons, and roundels of dots and circles (debased arabesque?) and enclosing shields on a lustre ground. These are linked to the Pula group not so much by the motifs, which do not even occur on one of the drug jars, as by the overwhelming use of lustre in concentric zones separated by broad blue bands. Pula motifs, however, cover a less common form in the Godman collection at Horsham. This globular vase is 229 mm high with a short upright neck 181 mm wide and has four handles (VAN DE PUT-DICKINSON, 1906: 162, fig. 3).

The decoration of a bell tower in Liguria demonstrates at the very least the contemporaneous use of many of the vessels so far discussed (Pls. 11-13). The *bacini* on S. Ambrogio at Varazze (prov. Savona) comprise six Pula-like small bowls varying in diameter from 120 to 150 mm (nos. 4, 13-14, 16-17, 25), another with a brim terminating in an upright rim 150 mm across (no. 30), four dishes or plates all except one with an upright rim (no. 18), between 180 and 240 mm wide (nos. 11-12, 29), two bowls with short upright sides 140 and 240 mm in diameter (nos. 15, 26), another dish 210 mm across with a short vertical side (no. 19), and fragments of one medium size (RØ 190, no. 20) and seven larger (RØ 290-350) bowls with outward curving rim, sometimes overlapped by small handles (nos. 1-2, 5, 7-8, 24, 27). The decoration on the smaller bowls and dishes matches closely that at Pula: the reserved star form (nos. 17, 20), the eight-petal star in lustre (no. 16) and the brace squares (no. 13) in the centre; radiating bands (no. 17), grid (no. 30) and interlace (no. 25) on the sides; six and eight segments (nos. 12, 14, 18), some filled with veined leaves (nos. 12, 18), and even the white and lustre rays (no. 11). The larger bowls' ornament includes fan segments like 5 (no. 27), a close parallel to one of the Cluny bowls (no. 8), and truncated leaf segments filled with reserved lustre inscriptions, based on a central square (no. 7, cp. the Valencian bowl). The larger vertical-sided bowl (no. 15) is painted, exceptionally in purple (cp. VAN DE PUT, 1904: 29), with irregular interlace-filled leaves fringed by disks and segmented by lustre «fingers» projecting from a chequered «sleeve» and by areas of defined strippling. The vertical-sided dish (no. 19) has similar leaves separated by chequered roundels with blue debased Arabic on the brim. All the medium-size and larger bowls appear to have the reserve lustre motifs typical of the Pula repertoire. The smaller vertical-sided bowl (no. 26) bears five fish with

bifurcating tails. The surviving upper half of one of the dishes (no. 29) is covered with the sails of a two-masted ship set in a field of scrolls with reserved lustre segments hanging from the brim, like the larger Victoria and Albert bowl. The decoration of only one (no. 3) of the three jars (nos. 9, 22) broadly similar in shape to the Godman vase can now be seen. On the inside a polygonal interlace around a braced star set on a ground of smaller motifs, all in lustre, can barely be discerned. Between the handles on the outside fleshy arabesques framed in a trapeze were painted in blue. The character of one large lustre-decorated bowl not yet mentioned (no. 6) is, however, quite distinct from Pula and its ilk: a deer (?) set in a field of arabesques with a chevron band on the inner side (cp. the later Andalusian jars discussed below). The remaining *bacini*, a tin-glazed bowl decorated in purple and green (no. 10), and an east Mediterranean-type drug jar (no. 31), warn, as do the Pula associates, that these groups were made up of diverse items (BLAKE, 1970; 1972: 73-4).

This remarkable group of Spanish lustreware reinforces the link, already apparent in the decorative style, between the smaller and larger open forms. By the close matching of even the exceptional motifs such as the rayed pattern and the fish, it shows that the Pula group was not assembled piecemeal over a long period of time. The consistency of the type can also be examined by considering how it differs from other ceramic types. Spanish medieval lustreware is usually associated with the regions of either Andalusia or Valencia.

The characteristics of the southern region are deduced from the large jars, named after those still or once in the Alhambra palace at Granada, from finds made during excavations in the same palatial complex and in the Alcazaba at Malaga, and from single finds identified by their present or original location, dynastic coats of arms or inscriptions (VAN DE PUT, 1947b; FROTHINGHAM, 1951: ch. 1; CASAMAR, 1959; LLUBIA, 1967: ch. 2; DEMIANS D'ARCHIMBAUD-LEMOINS, 1980: pl. 4). The ovoid storage jars with distinctive wing handles, as befitting their intended context and size (the complete and most frequently published examples are in the main about 125 mm high), display the best executed and more complex decoration. On the basis of datable architectural ornament, the presumed locations of a later jar and of some tiles and analogous dated or datable tiles and gravestones, the series has been divided into two chronological groupings starting in the late 13th and terminating in the early 15th century.

Interlaced, stylized foliage predominates and clearly distinguishes the Alhambra jars from the Pula bowls and their affiliates. Only the leaf-like interlace at Cluny and on a Madrid drug jar faintly resembles the Andalusian foliage. Also common on the jars and lacking in the Pula repertoire are imbricated or diaper designs. Large Kufic inscriptions and antelope-like quadrupeds which respectively dominate the two groups of jars are also unknown in the Pula assemblage. A number of similar motifs such as grounds of scrolls, defined stippling and chevron bands are common to a wide range of Mediterranean wares. The later more florid and colourful jars include stellate polygonal interlace, chequered areas, small broken up motifs as the ground to blue interlace and blue stylized Arabic inscriptions. More specific parallels may be seen for the ceramics associated with the Pula type. These include plaited bands or ribbons, knotted Kufic, small hexagonal bands filled with linear motifs, and reserved lustre inscriptions in roundels. A reserved lustre band on the neck

of the «late» Madrid jar is somewhat similar to the smaller reserve lustre motifs at Pula. The pierced palmette in reserved lustre is on the exterior of a cover (?) whose inside is decorated in unmistakable Andalusian style (BERTI-TONGIORGI, 1981: pl. 202). The arabesque areas of two of the Varazze *bacini* (nos. 3, 20) resemble the filling of the so-called tree of life which makes its appearance on the later jars. This motif is common on the tableware excavated at Granada and Malaga and it is also on the reverse of the Victoria and Albert ship bowl. Fragmentary analogues have been excavated at Malaga for this London bowl and in Granada for the Varazze ship dish (no. 29, LLUBIA, 1967: figs. 144, 110). As well, the fish represented on a few jugs and bowls at Malaga resemble those at Varazze (no. 26, Pl. 14). Also in the Malaga repertoire are small braced motifs in the centre, segmented radiating designs, concentric zones, and bowls with short vertical sides. In conclusion, a brief visit to the Alcazaba stores confirms the impression gained from the published Andalusian material, a view already formed long ago by Van de Put (1927: 77), that the Pula bowls have little in common with these southern wares, despite some shared or derived motifs present in a wider tradition (FROTHINGHAM, 1951: 84-5).

The Valencian output is defined by the many vessels found in the city and in particular at the nearby kiln sites of Paterna and Manises (GONZALEZ MARTI, 1944: ch. 5; MARTINEZ ORTIZ-DE SCALA ARACIL, 1962). An Islamic tradition can be distinguished from a new vegetal one associated with the Roman alphabet, animals and humans in European dress, although motifs from both could be employed on the same vessel. Amongst the earliest Islamic types, datable by heraldic shields to about of before 1430, are basins and plates apparently about 400 to 500 mm across (FROTHINGHAM, 1951: 95-104; VAN DE PUT, 1904: 17-18; 1911: XII, 26A-29; GONZALEZ MARTI, 1944: 368-426). Two features characterize this series: closely filled elements executed in a relatively narrow lustre line and broad blue bands. The smaller lustre segments are usually filled with short curved lines, in some instances debased versions of the palmettes outlined on the Pula affiliates. The larger leaf segments contain carefully executed spirals, a typical motif in horizontal bands in a spiral capping, and flanked by, parallel upright lines. A further element which distinguishes the series is a continuous scroll with well defined disk flowers or fruit. On the bowls, which are wholly decorated in lustre, debased Arabic inscriptions, interlace filling leaves and trees or bushes are represented in slightly thicker line. These motifs were, however, more commonly represented in broad blue lines, which also form the wave pattern, typically on the brims of plates or on the necks of drug jars, the commonest closed form associated with the series. Less frequent are reserved lustre motifs. The petal star within a central braced pattern is the only one also observed at Pula. The others are more elaborate plants with lustre veining and cross-hatching; but the pattern on a vessel at Sèvres strikingly resembles that on the bowl of the Hispanic Society of America. In all cases this kind of reserved lustre is associated with the typical narrowline lustre of the series or has a reverse decorated with heraldic animals on a ground of stylized foliage, elements belonging to Valencia's «Christian» tradition. Another close match for a Pula pattern is a fragmentary plate found near Valencia and now in Barcelona, whose decor is divided into fan segments but with traces of Gothic lettering on the brim (GONZALEZ MARTI, 1944: figs. 430,

477, 502, 504-7, 517, 519-22; LANE, 1957: pls. 8-10; HUSBAND, 1970: 22.2, 31.17, ; see also Chapter 5).

The impression gained from the published examples of Valencian wares (with the reservation that one has to rely largely on González Martí's somewhat schematic representations and on attribution instead of explicitly reported finas-pots) is that the decorative schemes and to a lesser extent some of the motifs relate to the larger open forms associated with the Pula group. A large bowl in a Genoese museum is decorated with a lion and may for this reason be considered Valencian. Small redundant handles curve over its rim, but it has a relatively straight side rising from a slight carenation and its base is concave (BLAKE, 1972: no. 45). Amongst the pottery displayed in the González Martí museum at Valencia is a small plate or dish which combines elements both of the smaller Pula bowls and of the «Islamic» series described above. The closeness or otherwise of this and other vessels exhibited, both in terms of decoration and shape, is, however, difficult to assess as the pots have been over-imaginatively restored. Despite these similarities, which suggest a blurring of the frontiers between styles, the core Pula group appears to retain its separate identity, distinguished particularly by its use of broader lustre.

#### 4. PLACE OF MANUFACTURE

Given that the Pula bowls and most of its supposed affiliates are a distinctive type within the Spanish lustreware tradition, are there any analogues in Spain whose contexts would indicate where and when they were made? Two small bowls and a tall jug, kept in Barcelona, have been described as excavated in Paterna or Manises (GONZALEZ MARTI, 1944: fig. 445; OLIVAR DAYDI, 1952: pls. 118, 121; and many fragments, FRANCOVICH-GELICHI, 1984: 16, n. 13). As well three over-restored small bowls and others now only decorated with blue radiating segments are on display in the Valencian museum. But similar small quantities of fragments are conserved in other towns, such as Alicante (Museo Arqueológico Provincial, vitrina 192, four medium-size bowls), Malaga (Alcazaba store, blue radiating segments dividing the cavities of small bowls), Murcia (Museo de la Muralla Arabe, large bowl, ARAGONESES, 1966: last unnumbered plate; Museo Arqueológico Provincial, small bowl), Toledo (three small bowls and two larger ones exhibited at the 1981 Colloquium), and many complete bowls and jugs were found in a shipwreck off the island of Ibiza (ROSSELLO BORDOY, 1981). These fragments can hardly be employed as evidence to establish manufacture in any particular centre.

It is a matter of opinion whether the stylistic analogies already discussed convince one of the type's origin in one or other of the two regions or centres, although the decorative schemes are more closely matched in Valencia. Examination of the forms on which the typical decoration occurs suggests that the larger conical bowls with a short upright side may be Andalusian (FROTHINGHAM, 1951: 95). On the other hand the thick potting of most of the Pula openware is more a Valencian than a southern trait (DEMAINS D'ARCHIMBAUD-LEMOINE, 1980: 371; cp. PASCUAL-MARTI, n.d.). A drawerful of jug fragments with the carefully shaped foot found at Pula has been excavated in Malaga (Alcazaba store; cp. simpler feet of taller Valencian jugs decorated in brown and green, PASCUAL-MARTI, n.d.: 51, form C-1) and a si-



milar base found at S. Pietro Paradiso, about 20 km to the east of Cagliari, is of the typical Malagan fabric (120; SORGIA, 1976; MANNONI, pers. comm.). The apparent absence of some forms at Valencia may, however, reflect chronological differences (see Chapter 5).

Until kiln wasters are discovered, the only certain way of establishing where the type was made is by examining the petrology and chemical constituents of the clay employed. The Andalusian types found in Liguria and the earth samples collected in the lithological region of Malaga contain altered slates, which in the buff fabrics can be seen with the naked eye as small brown laths. They do not occur in Valencian products where limestone is the distinguishing feature. Both these petrographic markers are lacking in the two Genoese Pula-type fragments analysed (MANNONI, 1972: 111, nos. 19, 120-1; 1982: 90; MAGI-MANNONI, 1977: 412, no. 264, 419; D'ANGELO, 1982-83: 80). However, the London bowl, listed above with the Pula affiliates, does contain the Malagan achists (HURST, 1977a: 79; VINCE, 1982: 135, 140) and unspecified dark inclusions were observed in the buff fabric of the decorated jar on the Varazze bell tower (no. 3).

The relative proportions of eight major chemical elements of exported Spanish wares have been compared with fragments of known provenance or undoubted attribution. The clay composition of the Provençal and Pisan Pula-type bowl fragments is quite distinct from that of Almeria, Cordoba, Granada, Malaga, Muel, Murcia or Teruel. It only differs from that of the Valencian reference sherds in respect of one element whose proportions apparently vary widely in the clays of the Valencian plain (LEMOINE *et alii*, 1982; DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: *passim*, pl. 8. 12-18; DEMIANS D'ARCHIMBAUD *et alii*, 1981; BERTI-TONGIORGI, 1981: 266 n. 274).

The same analysis of two *bacini* from S. Andrea in Pisa reveals chemical compositions similar to the Pula type. The church has been assigned on stylistic and ceramic grounds to the early 12th century; and one of the bowls shares the decorative characteristics of lustreware of that period. This suggests that the Pula type may have been made in a centre with a long established lustre tradition; and, if that centre be in the Valencian region, there is no need to attribute the origin of the Pula type to southern immigrants. On the other hand, the date of the church brings to mind Catalayud's renown as an exporter of lustreware in the 12th century (BERTI-TONGIORGI, 1981: 70 n. 2, 266; BLAKE, 1972: 64).

Different analysis of seventeen of twenty-three major, minor and trace elements measured in samples found in Spain, Egypt and Great Britain places bowl fragments decorated with a grid pattern from Fostat and a central star from Bristol in the same group as pottery found at Manises and of Valencian type excavated in London (HUGHES-VINCE, 1984: cluster 1, nos. 34, 37). However, these decorative motifs on their own are insufficient to characterize these sherds as of the Pula type (see ch. 3 § 7 and ch. 6 § 3).

Both laboratory methods have shown that the clay employed in the more certain Pula-type bowls examined is not the same as that used in any known Spanish centre but that an origin in the Valencian region cannot yet be excluded. The London find with Malagan inclusions does suggest either that its classification as a Pula affiliate is incorrect or that Pula-like decor was made in more than one centre.

## 5. CHRONOLOGY

Until about ten years ago the only acceptable discussion dated the type «from the very end of the 14th century to about 1410». It was based on similarities with the decorative style of the late Alhambra phase and on the later coarser rendering of the same motifs in the first datable Valencian products (FROTHINGHAM, 1951: 87). The only dated Spanish context cited is the cupola of the chapel dedicated at some time to San Cristóbal, San Gregorio or San Jerónimo in the Convento de la Concepción Francisca at Toledo. The inscription on the lowest register of tiles set in the dome records that the funerary chapel was erected in 1422. Neither the blue nor the lustre decorated tiles which are covered with a range of Islamic and Christian motifs are particularly Pula-like. The few reserved lustre motifs of a many lobed pierced palmette are closer to the kind on the Valencian Islamic series described above (KÜHNEL, 1925: figs. 9-10; LANE, 1947: 164; TORRES BALBAS, 1949: 365, fig. 420; AINAUD DE LASARTE, 1952: 78-9, figs. 184-5; MARTINEZ CAVIRO, 1980: 78-82). This context may instead be considered as a useful confirmation of the oft uncertain heraldic dating for the later series. The pierced reserved lustre palmette is, however, on a *bacino* in Pisa whose context has on stylistic and ceramic grounds been assigned to the second quarter of the 13th century. Even if one doubts the building's date, it is unlikely to have been erected after the first quarter of the 14th century (BERTI-TONGIORGI, 1981: 99, pl. 202; BLAKE, 1980: 94).

New chronological evidence has been brought to light during the last decade through the examination of contexts outside Spain, in particular of buildings in Italy and of excavations in south France. The best dated are churches in Latium, Liguria, Sicily and Tuscany (Fig. 7). The earliest is S. Maria Novella at Marti near Pisa. An inscription on the side wall records the start (?) of building in 1332. The two lustro bowls on the facade are typical both in form and ornamentation of those found at Pula (Pl. 15, nos. 8-9; REPETTI, 1839: 102; BERTI-TONGIORGI, 1974: 71-5, pl. 48 c-d supercedes BLAKE, 1972: 71, figs. 11-12).

The largest group of Pula-type *bacini* is on a bell tower in Varazze and has already been described in Chapter 3 (Pls. 11-13). The church was presumably erected, or at least its present dedication transferred, when the former S. Ambrogio was incorporated in the defences between 1251 and 1370. An inscription in the sacristy records the building in 1338 of a former doorway and the upper part of the tower is in a transitional style with both Romanesque and Gothic elements which on typological grounds could be placed in the mid-14th century (TERMINIELLO ROTONDI, 1970). It should, however, be noted that two of the Pula type bowls had been repaired with copper wire, which may indicate that they were already old when inserted in the tower (nos. 19, 27).

Two of the four surviving *bacini* on the facade of S. Andrea attached to the hospital of S. Giovanni at Rome are small bowls of Pula shape and decorated (both apparently) in blue and lustre (Pl. 15). No. 2 consists of a series of radiating segments rather like the side of 16 but with the broad blue lines meeting in the centre which is enclosed by a small annulet (cp. 6). The interlace framework of no. 6 resembles, but is less complex than, 15 with broad lustre braced lines in the centre. The reserved lustre within the hexagons radiating from the blue braced squares are, however, more schematic

and sloppily executed than any on the items mentioned so far in this paper. Without a detailed examination of the fabric and of the documentation of this architectural complex, it is difficult to establish S. Andrea's date. The facade appears to be on the same plane as a gate which bears an inscription recording its erection in 1348. Two other buildings do, however, separate the gate from the chapel; and S. Andrea appears to abut its neighbour. It is also uncertain if the gateway is in its original position (MAZZUCATO, 1973: 51-2; figs. 27, 31; pers. comm.; BERTI-TONGIORGI, 1974: 74).

The caption of a cardinal's portrait in the Roman church of S. Maria Maggiore records that he built the bell tower, presumably during his jurisdiction between 1370 and 1378. The six Pula-type vessels remaining on it consist of two hemispherical bowls (nos. 14, 31) and four dishes with a brim terminating in an upright rim (nos. 9, 11, 16, 29; Pl. 16). The decoration of three is laid out in concentric zones (nos. 9, 14, 31), the cavity of two have segments based on a central square (nos. 16, 29), and the interlaced bands on one surround a reserved star (no. 11). All bear motifs which can be matched at Pula but with two exceptions (nos. 11, 14) these are combined with ornament found in the so-called affiliates: angular (Kufic-inspired?) broad blue (nos. 9, 31), continuous waves irregularly filled with interlace and reserved lustre (no. 29), rectangular areas containing narrow line palmettes with inturned spiral terminals and broad stylized lustre arabesques on a ground of scrolls (no. 16). (Note that the last two occur at Varazze). Reserved lustre motifs occupy whole segments, concentric zones or the centre on all six, one of which is reduced to a series of arcs and wedges (no. 9; MAZZUCATO, 1981).

Apparently only six small bowls were salvaged during the demolition of the belfrey on the chapel attached to Palazzo Chiaramonte in Palermo (Pl. 17). Two almost identical ones have the typical Pula decor of radiating segments enclosing a veined leaf and the reserved and pierced palmette (nos. 990-991). The others display unusual motifs. The distinctive feature of a pair (nos. 992-993) are the white medallions set in a dominating lustre field. Within them is a small crossed and dotted circle surrounded by a broad blue concentric band, which is the only blue element on the upper side of the bowls. Between the medallions on no. 992 are reserved motifs like those on the lustre segments of nos. 990 and 991. The letters (?) on no. 993 resemble those on an apparently identical bowl found in Provence whose clay composition had been grouped with those of Pula type. The overall predominance of lustre and the reserved lettering recall one of the fish bowls from Pula (28). Nos. 992 and 993 are also unusual in having a concave disc, instead of a ring, foot. However, chemical analysis of finds in southern France similar to the two, now lost, Palermitan *bacini* (nos. 44C, 44R), decorated—perhaps only in lustre—with a many armed whorl-like star executed in narrow lines, falls within the range of assumed Valenciana clays, although the side of 44C is similar in character to that of 20 and like jugs 31-33. The principal clue to the chapel's date is an inscription over the right facade window which records a Manfredi Chiaramonte, who was also commemorated in closely similar verses in a nearby church. As only Manfredi III (who inherited the palace in 1356 and died in 1391) was certainly buried in this church and as the architectural style of the inside of the chapel of S. Antonio Abate has been assigned to the last decade of the 14th century, the chapel was probably built as part of the palace extension undertaken in the latter half of that century,

which included redecoration between 1377 and 1380. In any event it is unlikely that the inscription would have been installed after 1392 when the palace was confiscated (GABRIEL-LEVI, 1932; fig. 43-4; GONZALEZ MARTI, 1944: fig. 424; SPATRISANO, 1972: 39-40, 45, 153-4, 275-6; D'ANGELO, 1975: 106; DEMIANS D'ARCHIMBAUD, 1980: fig. 395.2; DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: pls. 8.12, 6.5, cp. also KÜHNEL, 1942: pl. 4.20, 7.49; GONZALEZ MARTI, 1944: fig. 547; AINAUD DE LASARTE, 1952: fig. 122; FRANCOVICH-GELICHI, 1980b: fig. 19; D'ANGELO, 1982-83. *Nepoti* (pers. comm.) concludes that Faenza Museum's inventories, recording two later style Valencian bowls as coming from Lo Steri, are unreliable, cp. MAZZUCATO, 1981: 81). It can thus be assumed that the chapel was built sometime between about 1370 and 1390.

The convent of S. Anna in Pisa was erected, incorporating in part earlier structures, from 1375 until presumably its church was consecrated in 1427. The three lustreware bowls were apparently inserted into earlier fabric. Both the forms and the floral motifs of two belong to well known 15th century types associated with Valencia. The third has decoration within the hemispherical cavity which accords well with that of the Pula find (Pl. 15, no. 618). Its clay composition is also chemically similar to the southern French Pula-type sherds. As most of its brim was broken off prior to its insertion in the wall, it may, it has been suggested, have been in use for some time before 1375/1427 or whenever one assumes the *bacini* were placed at S. Anna (BERTI-TONGIORGI, 1981: 148-9, 270-1, pl. 204).

The latent building is the bell tower of S. Biagio which rests on Finalborgo's walls whose construction is commemorated by an inscription dated 1452. The dish on the north face bears well known Italian Renaissance ornament also reproduced on a Bolognese pavement dated 1487. The other *bacino* on the east side is a plate with a short vertical side brim terminating in an upright rim. The visible surface is covered in blue and faded lustre ornament, laid out like that of a similarly shaped, but probably smaller, dish or plate at Varazze in the same province (no. 19). The cavity is dominated by three ovals filled with irregular blue broad lines and fringed by lustre disks separated by short upright vertical lines. A pierced reserved lustre palmette can be discerned between these ovals and the intervening smaller bushes. On the brim reserved lustre inscriptions alternate with blue lettering (Pl. 18, no. 1; LAMBOGLIA, 1970: 222-3; BLAKE, 1972: 74, fig. 26).

Only approximate dates, deduced from stylistic analogies, and in the case of Loreto circumstantial historical evidence, have so far been suggested for other fabrics decorated with Pula-type pottery. Four dishes 180 mm wide on S. Ambrogio's bell tower at Alassio in the province of Savona include a perfect match (no. 13) for 2 and the decor of the others combine schemes and motifs in the Pula find repertoire (Pl. 18, nos. 10-11, 13-14). The building phase with which the *bacini* are associated has been variously assigned to the 13th or 15th centuries, but it is unlikely that the column capitals are later than the 14th century. The incised bowls on the other faces of the tower were also commoner in the 14th century than in the following century (BLAKE, 1982: 280, pl. 86a-b; 1986: 326, pl. 2.5-6; BONORA, pers. comm.).

Three of the bowls at Sarnano in Macerata province in the Marche are hemispherical in shape, about 140 mm in diameter and decorated in blue and lustre (Pl. 19). They all bear a reserved petal star in the centre. The uppermost one



is enclosed by a broad blue-line braced star similar to ones at Pula (no. 1). In contrast the sides of the other two are covered by a series of narrow concentric zones filled with relatively narrow-line lustre scroll series separated by broad blue lines from a series either of chevrons (no. 6) or of flattened Ss (no. 4), similar in character to the star-whorl bowls at Palermo and Avignon. The *bacini* were placed within a pointed frame over a former side door into S. Francesco. Its character has been described as Gothic and 14th century. It is unlikely that the accompanying archaic or proto-maiolica bowls are later (BLAKE, 1980: 103, pl. 19 c-d).

Only two of the fragmentary *bacini* within the church of S. Tommaso at Pigna in the western Ligurian province of Imperia can now be identified as Pula-type bowls (Pl. 18, nos. 5-6). The pointed arcade, apparently of early 14th century form, was presumably inserted into the Romanesque structure before it was replaced by another church in 1450 (BLAKE, 1972: figs. 13-14; ROSSI, 1903: 30-1; VICINI, 1975: 231-3; PALLARES, pers. comm.).

Finally, at Loreto in the Marche two bowls exactly like 2 and 16 may have been removed from under the eaves of the Santa Casa when its present marble casing was erected between 1531 and 1534 (Pl. 19, nos. 425-426). A part of the side of a similar bowl (Pl. 19, no. 115), decorated with a grid pattern towards the centre and a chequered band beneath the rim and with the usual oblique lines on the outside may also have come from the same context. If so, they may date from after 1294, when the house materialized at Loreto, and before the 15th century relief showing *bacino*-like cavities in the spandrels of the arched corbel table along the north side of the house (D'ASCOLI, 1971: 4, 13, 28, 120-3; GRIMALDI, 1975: nos. 387-8, 425-6).

Thus of the eleven building fabrics hosting Pula-type *bacini* all but two (Pisa, Finalborgo) were probably erected in the 14th century. Those that bear contingent inscriptions record works executed in the 1330s (Marti, Varazze) and on one some of the relevant bowls were already old when inserted. To judge from their histories, three buildings were constructed towards the end of the century: the Palermitan chapel certainly before 1392 and the Pisan convent after 1375. But only one *bacino* on the latter edifice is of the Pula type. A case could be made for some (but only some) of the decorative characteristics of those on the Roman bell tower built in the 1370s as representing a later development. Presumably the single plate at Finalborgo, as it is a rather large, fine piece and as it closely resembles one on a certainly early fabric, had already been for some time a display piece when it was inserted in the later 15th century. Nothing certain can yet be said about the dating of the Roman chapel or the churches at Alassio, Loreto, Pigna and Sarnano. They may repay further study. In conclusion, these architectural contexts would indicate that the Pula type was current from at least c. 1330 to c. 1380.

Excavated material is more difficult to date. In most cases the contexts were not recorded adequately. Even when they have been, the chronology of the stratigraphy is rarely clear-cut and that of its components even less so. Allowance must also be made for the time these exotica may have been treasured above ground. A further problem is identifying the type from published drawings which, especially in the case of north European finds, have been prepared by illustrators unfamiliar with lustreware and often from sherds whose decoration is poorly preserved. Small fragments do as well pre-

sent a problem of recognition. One decorative element does not always suffice to characterize a Pula-type vessel.

The earliest context, claimed in a preliminary, popularizing publication, is apparently at Pistoia in Tuscany. An open-form fragment decorated with a concentric lustre band on which are reserved a series of pierced palmettes alternating with similar bifids was retrieved from the late 13th century fillings of a vault in the former bishop's palace (VAN NINI, 1981: fig. 21).

The most reliable evidence would appear to have been gathered in Provence, where at Rougiers and Cadrix a coherent series has been excavated in layers or deposits datable to the first half or to the middle of the 14th century (DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: 371; DEMIANS D'ARCHIMBAUD, 1980: 398-9). Contexts from two geographical extremes, the North Sea and the Adriatic, may also be of this century.

Three almost complete and two fragmentary jugs of the same shape and size as those from Pula have been recovered at various times and places off the Nordfriesland coast of Germany. The pair from Trendermarsch have the characteristic stepped foot and, to judge from the schematic drawings, ornament of the Pula type. One of the others appears to be decorated with a grid and a reserved lustre inscription. The area in which they were found was reclaimed from the 11th century and abandoned after a disastrous storm in 1362. It is of course possible that pots could have been lost at sea since then and later reclamation was submerged again in 1634. But, as the 14th century flood destroyed many coastal ports and must have had a considerable impact on the economy, these jugs may well ante-date 1362. This conclusion is supported by the other pottery associated with three of the jugs and by the absence of later records of trade (SARRRE, 1936; VAN REGTEREN ALTENA, 1966: fig. 21b; HARTMANN, 1969; 1975: 30-1, 46, 53, 56, pl. 26.6-10; HURST, 1977b; 1977c; ZICK-NISSEN, 1981).

At Split in Yugoslavia, a fragmentary straight-sided dish, 85 mm. high, 370 mm across at the rim and decorated with a blue frame like 15 which encloses reserved lustre hexagons, was unearthed with what has been called the most interesting medieval group discovered during the recent excavations there. Although the stratigraphy was not understood, the association seems probable. Fifteenth-century types were absent and the variously coloured archaic maiolicas may date from the second half of the 14th century. The area in which the site lay was successively occupied by the Archbishop, a nobleman with an Italian name and the Duke of Split. The deposit, if not a pit filled with rubbish any time after about 1350, could have been formed during the demolition of the nobleman's house in 1397 to make way for the Duke's castle, or during the sacking of that castle on the ruler's expulsion in 1413 (BUERGER, 1979: 14-16, 72, 100, pls. 11, 17, no. G VII 1; pers. comm.).

Not all fragments is 15th century contexts can be dismissed as residual. The two or three sherds from Pietrasanta in Lucca province were presumably the possessions of the seigneurial monastery of S. Agostino founded in 1386 (FRANCOVICH-GELICHI, 1984: 18, 40, fig. 3.1-2). The main phase of activity recognized at Molassana castle near Genoa was dated by two mint condition coins of 1436/42 and 1447. Of the pottery types only some of the incised and slipped wares were thought to belong to the 14th century. It is thus likely that the ringfooted sherd decorated with a braced square on a ground of spirals which encloses a reserved lustre petal



star whose apices are separated by an arc, would have been brought onto the site sometime between the end of the 14th and the middle of the 15th century (BAZZURO *et alii*, 1947: 36-7, no. 66, 44, 48; Pesce in MANNONI, 1968: 231-2). Other excavations have indicated when deposits containing a chronologically wide range of medieval material including Pula-type sherds were formed, for example, in 1450 at S. Maria di Castello in Genoa (CONTI *et alii*, 1973: 157, 163-4, pl. 8 1-4) and at the end of the 15th century in Tuscania (WARD-PERKINS *et alii*, 1972: 210, 232, no. 45; 1973: 98, no. 216).

Presumably, the complete drug jar found with 16th century pottery at Eastbourne on the south coast of England, is another instance of long-term conservation before discard (HURST, 1980: 119-21, fig. 44A.5).

The excavated evidence – if Pistoia is ignored – not only confirms the early chronology furnished by the buildings but suggests (Molassana, Pietrasanta) that the Pula type was in circulation after c. 1380, although how long after still requires clarification. Taking into account the earliest date yet established for the so-called Islamic series at Valencia, in which some Pula motifs are transmuted or combined with new ornament, a life of nearly a century from c. 1330 to c. 1420 may be proposed as a working hypothesis. However, the type may have developed well before it was placed in foreign contexts. It could too have continued in production alongside the later style; or the later style may have started earlier than presently thought and thus supplanted the Pula type sooner. If the type did last a century, some development in its rich decoration should be expected. Whether a shorter or longer chronology is eventually ascertained, the evidence for a core period of c. 1330 to c. 1380 cannot be disputed.

## 6. DISTRIBUTION

It is already apparent from the preceding Chapter that the Pula type reached as far away as northwest Europe and the east Mediterranean. In fact sherds have been reported along most of the Mediterranean and European littoral (Fig. 8). But the number of examples and find-places are not numerous. Where established the contexts are affluent: seigneurial, monastic or mercantile. All the finds known to me in Spain have been listed in Chapter 4. The distribution in southern France has been outlined by Démians D'Archimbaud and Lemoine (1980: 371). In addition to the Italian findsports already mentioned, I am aware of whole or fragmentary Pula-type vessels at Tortona in Piedmont (CORTELAZZO, 1981), Faenza in Emilia Romagna (LIVERANI, 1954: 54, n. 5), Fano and Pesaro in the Marche (NEPOTI, 1981), Florence (BLAKE, 1972: 13) and Siena in Tuscany (FRANCOVICH-GELICHI, 1984: 21, n. 29, fig. 5.1), Lucera in Apulia (BUERGER, 1978: pl. 191) and of a rather schematically decorated bowl at S. Pietro di Sorres in Sardinia (130). In the Islamic world they have turned up at Bougie in Algeria (MARÇAIS, 1916: pl. 8.4), Carthage (FERRON-PINARD, 1954: pl. 21) and Tunis (DAOULATLI, 1980: many on pls. 1-3) in Tunisia, Alexandria (KUBIAK, 1969: 18 n. 58; MEHREZ, 1959: fig. 7) and Fostat (e.g. KÜHNEL, 1942: pls. 2-4, nos. 6, 8-9, 11-16, 18-19, pl. 7.35-6; VAN DE PUT, 1927: pl. 98), in Egypt, Hama (RIIS *et alii*, 1957: 135, fig. 405) and Baalbek (KÜHNEL, 1942: pl. 7.44) in Syria, and at Miletus (KÜHNEL, 1942: pl. 7.48) and Ephesus (British Museum, M & LA, OA 9287) in Turkey. Five Pula-type

fragments are even illustrated in a report on the pottery recovered during the 1890s from a waste heap outside Theodosia in the Crimea. The medieval town of Caffa on this site was from the late 13th century to 1475 the principal Genoese colony and trading centre in the Black Sea (VON STERN, 1906: 2, 23-8, 80-1, 83, pl. 9, nos. 87-9, 91, 98). Presumably the bowl fragment found astonishingly at Moscow passed through this Italian emporium rather than the Baltic (ROZENFEL'DT, 1968, pl. 23.9).

The type is similarly scattered along the coasts of north-west Europe. Apart from the London dish and the Eastbourne drug jar, the only other English finds are a closed form fragment in a rich group at Bristol, decorated with a chevron band and a reserved lustre inscription, and a dish from a Northumbrian castle with rather schematic reserved lustre motifs (HURST 1977a: nos. 27, 21). Together with the Nordfriesland jugs, bits of a drug jar at the Belgian abbey of Coxyde (MARIEN-DUGARDIN, 1974: 108, fig. 1) and the centre of a characteristically segmented bowl from Sluis in the Netherlands (HURST-NEAL, 1982: fig. 5.95) are the only certain candidates on the continent. Many of the fragments bearing traces of a grid pattern may also have come from Pula-type pots. Cognate small bowls (see the discussion in Chapter 5 of the Sicilian *bacini*) and a drug jar bearing some of the motifs of the so-called Valencian early Islamic series (HUSBAND, 1970: 16.4) do, however, show that this characteristic was not exclusive to Pula. A jug at Lübeck in the Baltic may be an exception (HURST, 1978: fig. 51.1). The larger body and wider neck distinguish it from the more slender Pula and Nordfriesland jugs. Within the neck is a band of opposed diagonal lines separated by disks rather like a debased version of the decoration in 30. A closer parallel can be seen on the inner side of a small bowl from Rougiers in Provence. The chemical composition of this bowl's clay has been grouped with those of the more certain Pula types (DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: pl. 8.13). An identical jug rim fragment has been found at Elgin in Scotland (HURST, 1977a: 93).

## 7. DISCUSSION

The lustreware bowls and at least one of the jugs (30) from Pula are of one type. The chemical composition of the clay of examples found elsewhere differs significantly in only one of the measured elements from that of known Valencian products. Strikingly similar bowls decorate a church tower erected in the second quarter or in the middle of the 14th century. Even though the Valencian origin of the lustreware and a mid 14th century date for the Pula find as a whole can now be affirmed with some confidence, some Pula-type vessels were placed in later contexts and pottery with related decoration may have been made elsewhere. An examination at first hand of the Pula affiliates is needed to determine the petrological inclusions in the clay and to establish a wider range of typological attributes than those visible in published photographs. Meanwhile on the basis of the information outlined above some distinctions are proposed.

The small bowls are Valencian because of the chemical analyses of the Provençal and Pisan finds. So are the large Hispanic Society and Cluny bowls on account of resemblances in shape and decorative patterns. On the other hand the straight flaring bowls and dishes with short vertical walls (e.g. Verazze nos. 15, 19, 26, Finalborgo, and the Victoria

and Albert ship bowl) are Malagan, as confirmed by the inclusions in the find at Blossom's Inn, London, and suggested too by their similar decor. I am less certain about the three Pula jugs painted only in lustre and about those from the North Sea, which may be Malagan. The decoration of the other closed forms would, if the attribution of the small bowls is correct, point to Valencia.

It is clear that some motifs remained unaltered over the half century or so of the more reliably dated buildings. As so many more *bacini* and the Pula find itself may belong to the earlier period and so few to the later (in the order of 51 to 7), only the later novelties are likely to be significant. These are angular stylized broad blue line inscriptions, continuous waves irregularly filled with interlace and reserved lustre, and rather schematic reserved lustre motifs which are found on the Roman bell tower of the 1370s. The dish at Dunstanburgh Castle in Northumberland closely resembles the one with the wave band (Pl. 16, no. 29) and the angular inscription (Pl. 16, nos. 9, 31) can be compared with a similar brimmed bowl at Siena and with a drug jar at Arezzo (FRANCOVICH-GELICHI, 1984: fig. 5.1; SPALLANZANI, 1978b: fig. 4). An undulating band is also on one of the tall jugs and on some of the drug jars kept in various collections. A link may also be suggested between the schematic lustre at the chapel of the Roman hospital and that of the S. Pietro di Sórres bowl. The reverse of the latter is decorated with oblique lines capped by a broad crenated line like those of the so-called whorl-star at Palermo (Pl. 17, nos. 44C, 44R; cp. also at Siena, FRANCOVICH, 1982: fig. 277 fv3). Comparisons of the ornament on the inner sides of the bowls extend the chain to Sarnano. Assuming these traits were not fortuitously absent from the earlier contexts and are not the products of a different contemporary workshop, they may be later developments of, but still recognizable as variants within, the Pula type.

Apart from the cache at Pula and the Varazze *bacini*, which are unusual contexts, Pula-type vessels are few and far between. The circumstances of preservation of the larger uncommon vessels in collections have not been revealed. Fragments of a few large bowls have been recovered from the ground, for example at Murcia, Toledo, Florence, Split, Alexandria, Fostat and Miletus. The typical find in the Mediterranean is the small bowl, commonly decorated in segments of broad down-sloping leaf veins alone or alternating with the reserved lustre pierced palmettes (for examples of this particular motif which is not represented at Pula, see TORRE, 1974: fig. 1 as well as Pl. 15, no. 8, Pl. 17, nos. 990, 991). In contrast few, if any, have been identified in north-west Europe (possible fragments at Bristol, HURST, 1977a: nos. 18-19, and at Sluis). This may reflect different geographical and/or chronological commercial patterns.

This picture of a 14th century Valencian lustreware with a limited but extensive market fits well the history of Spanish lustreware imagined by earlier scholars. The major difference is that research over the last decade in France and Italy has provided tangible evidence to replace the subjective conjecture against which Lane so rightly inveighed in 1947. Much weight had been put on interpreting the placenames employed in inventories and contracts to describe ceramic items. However, the references are usually vague; the name not only of the first well known manufacturing centre but also of the port of origin of the carrier was often transferred to the category of products regardless of where the pots had been made; and scribes were frequently careless, inconsis-

tent, or incapable of distinguishing, or considered it unimportant to differentiate, between various types of similar value (BLAKE, 1972: 64, 84; REBORA, 1972: 91; SPALLANZANI, 1978a: 102-6). Despite these reservations, the earliest reference in a Catalan inventory of 1343 to *II scutellas siue tayadors de terra de Melicha siue de Valencia* can perhaps be taken at face value in view of the evidence for the early dating of the Pula type (VAN DE PUT, 1911: 3, n. 4; 1927: 77). These large bowls or dishes may have been like the bigger *bacini* at Varazze which came from both centres (SPALLANZANI, 1978b: 535 n. 22).

The early chronology also provides a better context for overlap and imitation, with vessels like the Blossom's Inn, London, dish providing a prototype for the first Valencian lustreware. It would also explain why it was felt necessary to mark some of the early Andalusian export ware with the name *Málaga* (BLAKE, 1972: 64; cp. apparently illegible marks at Malaga, Pl. 14, nos. 5-6). Most of the Pula type can thus be seen as a similar but sufficiently distinctive competitor of the southern ware. The extent of its distribution both in its smaller more popular form (Pula) and in its finer manifestations (Hispanic Society of America, Cluny) illustrates its success. A simple shape and the use of stencils in applying the lustre ornament may indicate adjustments in production methods to cope with demand (MANNONI, 1972: 122-3). But judging from the number found abroad Valencia did not at this stage take Andalusia's markets. It is difficult to assess the quantity of southern lustreware exported, because its faded lustre mitigates against its publication. In the absence of detailed excavation reports it is not possible to tell which would have been contemporaneously available during its long production run from about the mid-13th to sometime in the 15th century (BLAKE, 1972: 64-5, 67; BERTI-TONGIORGI, 1981: 268-9; MANNONI, 1975: 120-1). In Liguria, but not apparently in Provence, Andalusian pottery far outnumbers the Pula type. This type was, however, merely the fore-runner of the later Valencian lustre products which in the 15th century were distributed in greater quantity than any earlier lustreware and reached many more places (HURST, 1977a: 75-6; HURST-NEAL, 1982: 83; DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: 365-6, 369, 371; BLAKE, 1972: 80-2, 85-7; PRINGLE, 1977: 146-8). At variance with the traditional view of a transfer of lustre technology from Andalusia to Valencia in the 14th century are the 12th-century bowls in Pisa apparently made with Pula-type clay.

This export ware, as Lane (1947: 164) aptly called it, was but the cream of a local industry producing green and brown decorated pottery like 35. Whether or not the expertise in lustre was brought by immigrant southern potters, this type's success must be seen in the context of the wider political and commercial expansion of the Aragonese crown and its Catalan subjects from the end of the 13th century. The conquest of Sardinia in the 1320s was part of this process. The powerful Boil family held important crown offices and were from 1329 lords of the main Valencian ceramic centres. But there is no evidence that interest in their fiefs extended beyond realizing the value of dues paid in kind (LUTTRELL, 1965: 1-4; ARIBAS PALAU, 1952; VAN DE PUT, 1911: 13-14, 20-1; 1927: 77; 1938: 74).

Genoa's prominent role in, and the nature of, the maritime traffic between the Mediterranean and the English Channel may explain the relatively small quantities of early Valencian lustreware found in Liguria and northwest Europe.

The large ships, which even then may have resembled the three-master on the Victoria and Albert bowl, stopped at only a few ports like Majorca, Malaga and Cadiz. Goods from elsewhere were gathered at these emporia and the ship wrecked off Ibiza may have been such a link. But on the whole the informal methods of taking on small loads and even more so of filling empty hulls on their return would have favoured the products of the ports of call. Apart from a few special routes and areas such as the Black Sea and notwithstanding the greater number and capacity of Ligurian shipping, trade was conducted under many flags. Already at the start of the 14th century the transport of inexpensive goods was becoming economic; and from the middle of that century, English ships increasingly came to Andalusia for oil (BLAKE, 1970: 135; REBORA, 1972; HEERS, 1971: 203-33, 247, 285-90, 326-7, 330; CHILDS, 1978: 2-4, 8, 110, 141, 149-152, 154-5).

Although in the 15th century specially commissioned items of lustreware could command the same price as some porcelain, Italian merchants were able to acquire standard Valencian products at the same cost as the tin-glazed pottery made at home. Given that the Spanish ware bore the distinctive and fashionable lustre and that transport costs were low, the sale of small quantities of these exotica does not require special explanation (SPALLANZANI, 1978a: 118-19; 1978b: 540).

Recent research abroad has provided new information about a range of well and lesser known Spanish pottery. Hopefully the international Colloquium on medieval ceramics of the west Mediterranean held at Toledo in 1981 will stimulate a similar interest in the producing areas where the mass of material from Malaga's Alcazaba awaits publication, where the pioneering work at Valencia rests undeveloped and where the simpler exported wares of Seville and further west are yet to be explored.

## 8. CATALOGUE

The measurements are in mm. H = height, RØ = rim diameter, BØ = base diameter, HW = handle width, L = left, R = right. The glaze and paint colours have been compared with the U.S. National Bureau of Standard charts (number, ISCC-NBS, 1964; KELLY-JUDD, 1955); and the fabric colour with a French soil and rock code (number distinguished by a letter prefix, CAILLEUX-TAYLOR, 1963). The vocabulary employed in the description of the decoration is largely derived from Valentine, 1965, and Mitchell, 1974. The five figure inventory numbers were on adhesive labels affixed to the vessels in 1973. The three figure ones are those now assigned by the Soprintendenza ai Beni Ambientali, Architettonici e Storici per le Provincie di Cagliari e Oristano. González Martí's watercolours are schematic and in part incorrectly coloured. The position of the corresponding photograph on Olivar Dayd's plates is given because the distribution on each plate of his unnumbered figures does not follow a consistent pattern.

1-29. (Fig. 3). Thickly potted hemispherical bowls, thinned towards rim. Everted ring foot, pierced laterally after firing, with thickened base forming conical projection from centre of roof. Completely covered in yellowish-white (92) glaze. Stilt scars were noted on only one bowl (18), but it is clear from photographs that at least 3, 6, 13, 16-17, 21-23, 25, 27 and 28 bear traces of what may have been tri-

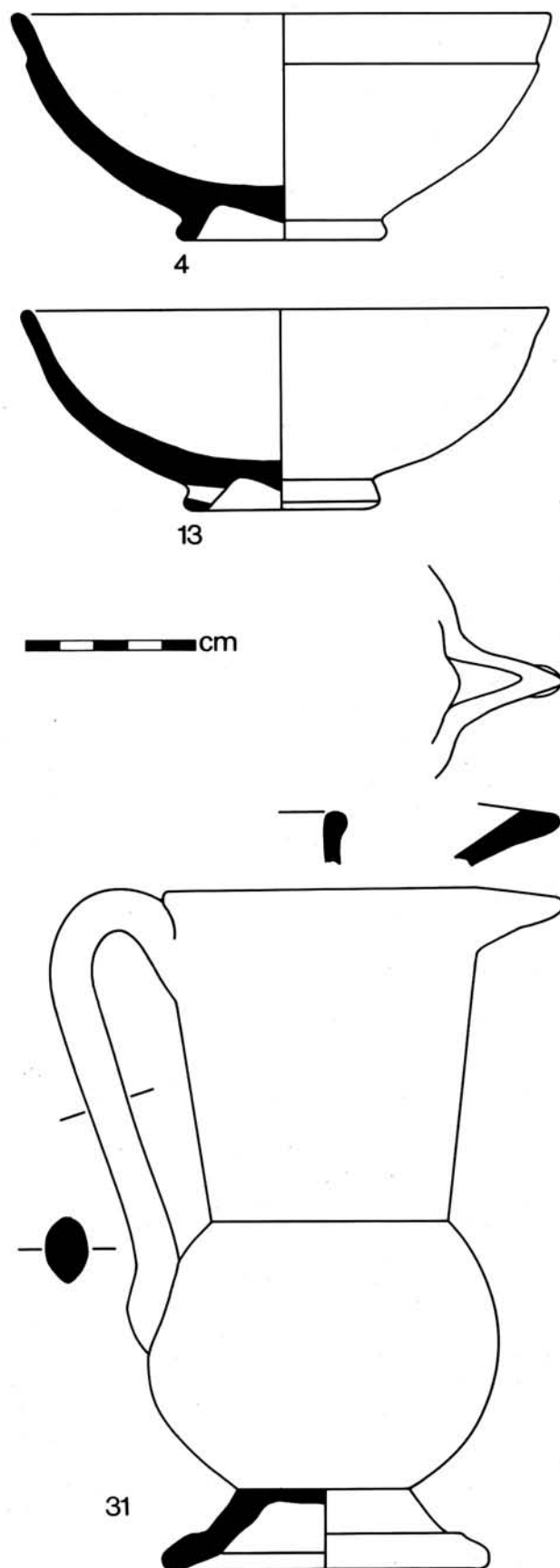
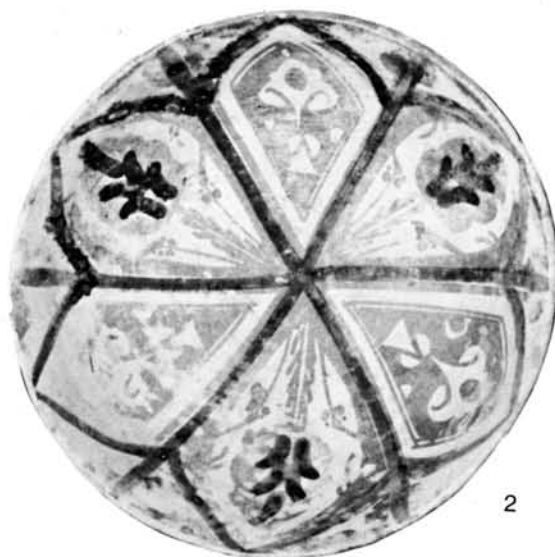


Fig. 3: Pula: tin-glazed pottery decorated in blue and lustre (Catalogue nos. 4, 13, 31; scale 1:3).





1



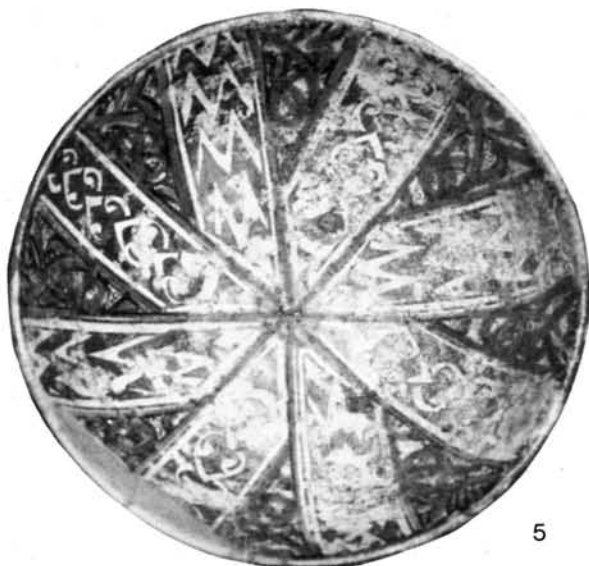
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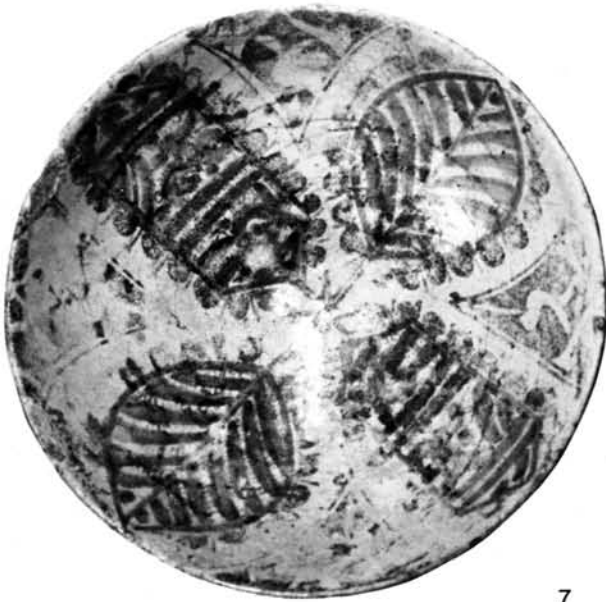
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Plate 1: Pula: tin-glazed bowls decorated in blue and lustre (Catalogue nos. 1-6; not reproduced at the same scale).

- pod stilts. Cavity decorated in blue and lustre. Standard external decoration in lustre usually consists of broad line or band on and/or immediately below rim succeeded by two concentric horizontal lines enclosing a band of oblique lines or chevrons with further broad line below. Catherine wheel, rosette, whorl or wheel on roof of the ring foot complement oblique lines and rarely chevrons (1, 14: Pl. 4; OLIVAR DAYDI, 1952: pl. 124 upper).
1. (Pl. 1). Deep, well finished base. H 50, RØ 123, BØ 47. Light purplish-blue (199) and dark to deep brown (59, 56) lustre. Cavity divided by blue bands defined by lustre lines into six segments enclosed below rim by pointed arch. Within spandrels short lustre band slopes toward terminal of radial band. In segments cuneate-shape lustre leaf with thick regular pectinate lateral veins springing from median vein, formed of two parallel lines, alternates with lustre stalk supporting lobed oval incorporating blue double bifid surmounted by single petal projecting beyond head. Two noded tendrils curve from either side of stalk base to join radial band midpoint. On outside chevrons and Catherine wheel. Inv. no. 405. Published by VAN DE PUT, 1932: 79 I 2)b), pl. 12b; GONZALEZ MARTI, 1944: fig. 422.
  2. (Pl. 1). H 61, RØ 157, BØ 60. Light red (C36) fabric. Thin and pimply glaze on lower outside. Strong purplish blue (196) and moderate yellowish brown (77) to light olive (106) lustre. Blue bands as 1 with thick lustre bands defining inner sides of segments. Lustre lunettes either side of and below terminal of radial band. Below rim lustre to either side of arch apex. Plant cp. 1, supported by scale-like hollow stalk flanked by trifoliate terminating tendrils, alternates with line-defined lustered segments incorporating white palmette with lustre disk at centre over white triangle flanked by lunettes and arcs. Oblique lines and Catherine Wheel. Inv. no. 419. Published by VAN DE PUT, 1932: 80 IIb); GONZALEZ MARTI, 1944: fig. 421; OLIVAR DAYDI, 1952: pl. 119 (lower R).
  3. (Pl. 1). Deep base with narrow roof. H 67, RØ 160, BØ 62. Brilliant purplish blue (195) and moderate olive brown (95) lustre. Framework of eight segments with reserved lustre motifs cp. 2; but plant head disconnected from and above triangle defined by double line and filled with short lines, dots and arcs. Upper apices of triangles continue as thick line to L and R to enclose plant head area. At lower apex one side continues towards radial band. Oblique lines with unclear trace within base. Inv. no. 397. Published by VAN DE PUT, 1932: 80 IIIa), pl. 15a; GONZALEZ MARTI, 1944: fig. 426; OLIVAR DAYDI, 1962: pl. 113 (upper).
  4. (Fig. 3, Pl. 1). Crenated upper side. Heavy with thin high base. H 67, RØ 159, BØ 60. Glaze tends towards pale yellow (89) on outside. Only strong purplish-blue (196) remains. Cavity divided into eight segments with further triangular subdivision at midpoint of rays, creating fan impression. Horizontal blue band around upper outside. Inv. no. 404.
  5. (Pl. 1). H 60, RØ 152, BØ 60. Brilliant purplish-blue (195) and moderate yellowish-brown (77) to light olive (106) lustre. Blue frame as 4 with rosette at centre, all defined by lustre line. Outer triangular segments filled with irregularly interlaced blue band on a ground of fine lustre motifs. Within fan segments white defined lustre bands serve as ground alternately for series of white double indented lines and for overlapping deltoid leaf-like outlines. Oblique lines and Catherine Wheel. Inv. no. 406. Published by VAN DE PUT, 1932: 80 IV, pl. 16a; GONZALEZ MARTI, 1944: fig. 429; OLIVAR DAYDI, 1952: pl. 115.
  6. (Pls. 1, 6). Heavy. H 58, RØ 164, BØ 67. Pimply glaze on outside. Strong purplish-blue (196) and moderate brown (58) to dark greenish-yellow (103) lustre. Lustre defined blue lines dividing cavity into six act as stalks of oblique based leaf. Shorter side outlined in blue defined lustre with row of lustre dots between blue veins. Longer side in lustre only outlined with double lines and with veins marked by broad lustre bands. This side extends to small blue circle in centre from which spring two lustre stems one with trifoliate terminal, both curving to touch longer leaf side. Lustre triangular segments hanging from rim are filled with lines, dots and arcs, subdivided by and enclosed by double lines, one of which continues beyond spotted apex to touch longer leaf side. Oblique lines and Catherine wheel. Inv. no. 396. Published by NISSARDI, 1897: 284; VAN DE PUT, 1932: 79 I 2)a), pl. 12a; GONZALEZ MARTI, 1944: fig. 420; FROTHINGHAM, 1951: fig. 54.
  7. (Pl. 2). H 46, RØ 140, BØ 53. Light red (C36) fabric with white (A41) surface. Moderate blue (182) and light grayish-brown (60) to moderate olive (107) lustre. Cavity dominated by pair of opposed motifs in blue joined at centre by double lustre line overlain by similar small cross. One consists of ovate leaf with blue veins separated by short upright lustre lines and with blue outline fringed by lustre disks. Short lustre line between discs. Similarly fringed hexagons formed of lustre defined blue bands enclose debased Arabic inscription in blue on ground of small lustre motifs. Double line defined lustre triangles hang from rim providing ground for white motif made up of chevron over arc and line. Chevrons. Inv. no. 381. Published by VAN DE PUT, 1932: 79 I 2)f); GONZALEZ MARTI, 1944: fig. 418.
  8. (Pl. 2). Heavy with taller and thinner base. H 67, RØ 153, BØ 58. Strong purplish-blue (196) and faded lustre decoration. Cp. 7 with centre recrossed in blue. Traces of lustre include fringe of disks around leaf, triangular hatched area flanking longer side of hexagon, reserved motif of smaller flower/leaf on long stalk within segment hanging from rim. Blue band above oblique lines with Catherine wheel. Inv. no. 411. Published by VAN DE PUT, 1932: 79 I 2)e), pl. 13b.
  9. (Pl. 2). H 57-62, RØ 150, BØ 62. Light red (C38) fabric with white (A41) surface where glaze crawled on lower outside. Strong purplish blue (196) and dark yellow (88) to light grayish brown (60) lustre. Cavity divided by four lines recrossed at centre and terminating in deltoid leaf, all in lustre defined blue. Leaf filled with blue bands on fine lustre scroll ground. Between leaves hexagons stretch from tips of central small cross to rim and contain overlapping leaf outlines cp. 5. Fine lustre stalks spring from centre, curve and terminate in lobed leaf/flower with projecting top touching longer side of hexagon. Line projecting from apex of scarcely discernable lustre segment, hanging from rim, also touches hexagon side. Oblique lines and Catherine wheel. Inv. no. 399. Published by NISSARDI, 1897: 280; VAN DE PUT, 1932: 80 IIc), pl. 14b; GONZALEZ MARTI, 1944: fig. 427; OLIVAR DAYDI, 1952: pl. 119 (upper).
  10. (Pls. 2, 6). H 59-60, RØ 150, BØ 64. Strong purplish-blue (196) and moderate yellowish-brown (77) lustre. Broad blue square in centre frames lustre ground of white Arabic inscription. From each side springs ovate leaf with narrow blue outline and median vein. Oblique broad blue lateral veins are separated by row of lustre dots. Remaining decoration in lustre. Double lined rectangular frame, projecting from corner to halfway up side, encloses crowded lines and arcs. Line curves from upper corner to join gold disk fringe of leaf. Dot between disks. Triangular segments, cp. rectangles, at rim with line continuing beyond lower apex to reach side of deltoid shape suspended over rectangle. This acts as ground for white disk-centered palmette over bifid from whose terminals disk hangs. Oblique lines and Catherine wheel.



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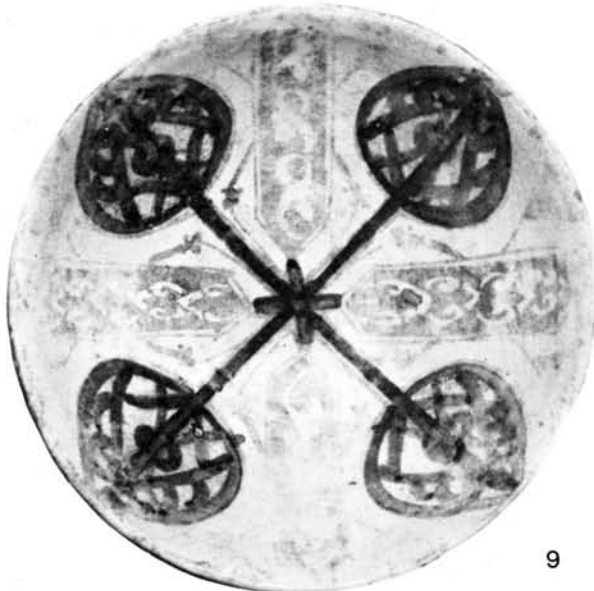
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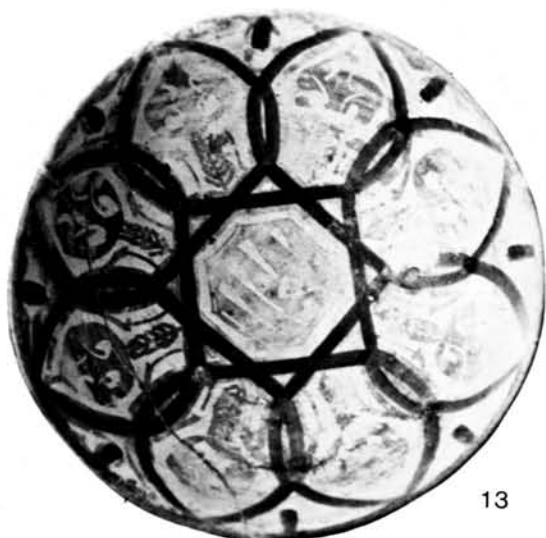


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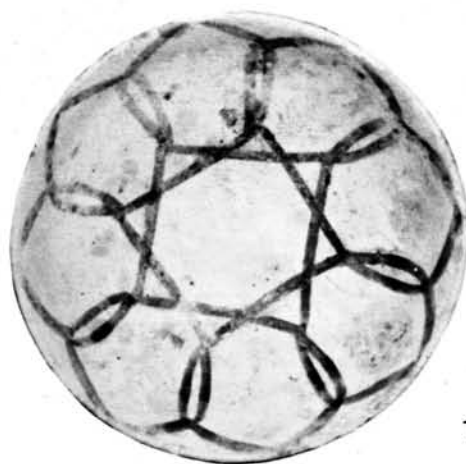
Plate 2: Pula: tin-glazed bowls decorated in blue and lustre (Catalogue nos. 7-12; not reproduced at the same scale).



- Inv. no. 413.  
Published by VAN DE PUT, 1932: 79 I 2d), pl. 13a; GONZALEZ MARTI, 1944: fig. 428; OLIVAR DAYDI, 1952: pl. 120 (upper).
11. (Pl. 2). H 60, RØ 150, BØ 55. White (A41) surfaced fabric. Brilliant purplish blue (195) and moderate brown (58) lustre. Lustre lines painted on fabric surface where glaze missing on outside. Cp. 10 but with broader white frame around inscription. Corners of central lustre field linked by line to narrow blue line square whose sides act as base for truncated leaf. Short lustre line between disks of fringe. Triangular segment mainly filled by disk-centered palmette which is framed above by chevron with further lines and disk to each side.  
Oblique lines and Catherine wheel.  
Inv. no. 417.  
Published by NISSARDI, 1897: 283; VAN DE PUT, 1932: 78 I 1a), pl. 11a; GONZALEZ MARTI, 1944: fig. 431; OLIVAR DAYDI, 1952: pl. 120 (lower L).
  12. (Pl. 6). H 60-65, RØ 155, BØ 65. Moderate blue (182) and moderate yellowish-brown (77) lustre.  
Cp. 11 with blue frame defined in broad lustre. Central field defined by line and contains white disk-centered palmette. Lustre leaf surrounded by white margin. Triangular segments, linked by three lines to frame, contain upside down bifid (cp. 10) over broad white are or debased loop (cp. 19).  
Chevrons.  
Inv. no. 415.  
Published by VAN DE PUT, 1932: 78 I 1b), pl. 11b; GONZALEZ MARTI, 1944: fig. 432; FROTHINGHAM, 1951: fig. 53; OLIVAR DAYDI, 1952: pl. 120 (lower R).
  13. (Fig. 3, Pl. 3). H 60, RØ 155, BØ 57. Moderate to brilliant purplish blue (200, 195) and moderate yellow to light brown (87, 57) lustre. Braced blue squares at centre frame octagonal white bordered reserve lustre inscription. Corners of square continued to form eight interlaced leaf shapes, all defined in broad lustre. Leaf frames contain plant cp. 2, white arcs and curls on lustre ground of head. White palmette (?) in spandrel with short broad blue line over centre.  
Oblique lines and Catherine wheel.  
Inv. no. 402.  
Published by VAN DE PUT, 1932: 80 IIa), pl. 14a; GONZALEZ MARTI, 1944: fig. 433; OLIVAR DAYDI, 1952: pl. 119 (lower L).
  14. (Pl. 3). H 48, RØ 120, BØ 49. Strong purplish blue (196) and scarcely visible faded lustre.  
Cp. 13 with disk-centered white palmette on lustre plant head.  
Chevrons and trace of Catherine wheel.  
Inv. no. 418.
  15. (Pl. 3). H 65, RØ 152, restored BØ 60. Strong purplish blue (196) and moderate brown (58) lustre.  
Lustre defined blue bands form braced square whose corners continue to rim below which crossed by other bands to form pattern of pentagonal and trapezoid segments on lower side and triangles and squares below rim. Remaining decoration in lustre. White eight petalled star on octagonal ground at centre. Within pentagons filled tree on double line trunk in field of fine scrolls. White loop on stalk on trapezoid ground. Scrolls in triangles. White acanthus-like form flanked by upright line on lustre square.  
Blue band above oblique lines with Catherine wheel.  
Inv. no. 409.
  16. (Pl. 3). H 48, RØ 120, BØ 47. Brilliant to moderate purplish blue (195, 200) and moderate yellowish-brown (77) lustre.  
Lustre defined blue circle with radiating vertical bands separated by broad lustre bar. In white on central lustre ground eight petals with chevron between apices.  
Chevrons.  
Inv. no. 400.  
Published by GONZALEZ MARTI, 1944: fig. 437.
  17. (Pl. 3). H 57, RØ 150, BØ 55. Brilliant to moderate purplish blue (195, 200) and very faded moderate yellow (87) lustre.  
Cp. 16 with two lustre bars between each blue band on side and with scarcely visible reserved lustre fan in centre (cp. 23 but with broad lustre median line).  
No lustre visible on outside.  
Inv. no. 394.
  18. (Pl. 3). Heavy. H 65-75, RØ 160, BØ 65. Slightly pimply glaze outside. Strong purplish blue (196) and dark yellow (88) lustre.  
Blue concentric and radiating lines form three tier grid on side with close-set lustre grid within squares. Braced white hexagons on central lustre ground enclose lance-shaped triangles in cross formation within central square and disk-centered palmette in pentagons. In spandrels schematic palmette (?).  
Oblique lines and Catherine wheel.  
Inv. no. 412.  
Published by VAN DE PUT, 1932: 80 IIIId); GONZALEZ MARTI, 1944: fig. 435; OLIVAR DAYDI, 1952: pl. 113 (lower); LLUBIA, 1967: fig. 162.
  19. (Pl. 4). H 55, RØ 150, BØ 60. Very pale red (C23) and white (A41) fabric. Light purplish blue (199) and dark yellowish to moderate olive brown (78, 95) lustre.  
Blue two tier grid cp. 18 with broad lustre forming vesica shaped diagonal on ground of scrolls. In white on central lustre ground eight petals with loop between apices.  
Chevrons.  
Inv. no. 408.  
Published by GONZALEZ MARTI, 1944: fig. 438; OLIVAR DAYDI, 1952: pl. 111 (upper).
  20. (Pl. 4). H 58-63, RØ 150, BØ 57. Strong purplish blue (196) and dark brown (59) lustre.  
Two braced vesica shapes and square set within two braced squares, all in blue with lustre scroll in each square and triangular interstice. Grid of broad and narrow lustre with disk over narrow line crossings. Blue band below rim.  
Chevrons.  
Inv. no. 410.  
Published by GONZALEZ MARTI, 1944: fig. 436.
  21. (Pl. 4). H 57, RØ 150, BØ 55. Thin pimply glaze outside. Moderate blue (182) and moderate yellow (87) to dark yellowish-brown (78) lustre.  
Blue band around centre and below rim. Centre defined by two thin concentric lustre lines which enclose eight petalled star outlined in broad lustre. Disk and three dots between apices. Nine truncated lustre leaf shapes alternately broad with disk-centered white palmette or narrower with blue filled vesica shape. Between leaf apices below rim triangular segments with close-set dots, lines and arcs. One of outer lines of double frame continues beyond lower apex to touch central annulet.  
Chevrons.  
Inv. no. 430.  
Published by VAN DE PUT, 1932: 80 IIIc), pl. 15b; GONZALEZ MARTI, 1944: fig. 441.
  22. (Pl. 4). H 57-62, RØ 150, BØ 60. Very light blue (180) and deep brown to deep yellowish brown (56, 75) lustre inside and dark reddish brown (44) lustre outside.  
Blue bands as 21 defined by lustre lines. Remaining decor in white on lustre ground. Centre divided by four petal cross with disk centered palmette under bifid between each arm. Two tiers of inward and outward facing bifids, often with one side extended, alternate around side.  
Chevrons.  
Inv. no. 420.  
Published by NISSARDI, 1897: 283; VAN DE PUT, 1932: 80 IIIB); GONZALEZ MARTI, 1944: fig. 440; OLIVAR DAYDI, 1952: pl. 116 (lower); LLUBIA, 1967: fig. 163.
  23. (Pl. 4). H 50-56, RØ 147, BØ 57. Pimply glaze on lower outside. Very pale blue (184) and moderate olive brown (95) lustre.  
Lustre defined blue bands enclose two-tier chequered lustre band on side. Two braced lustre defined blue squares enclose white bordered lustre octagon filled with white lustre lined fan-like star. Broad verti-



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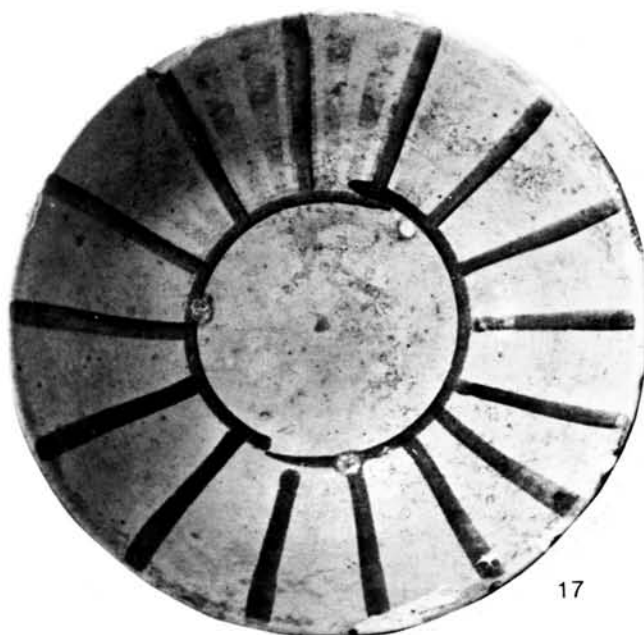
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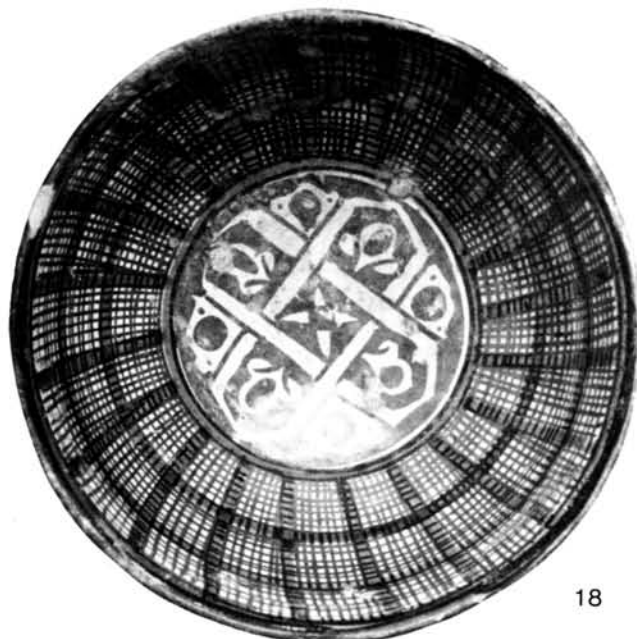
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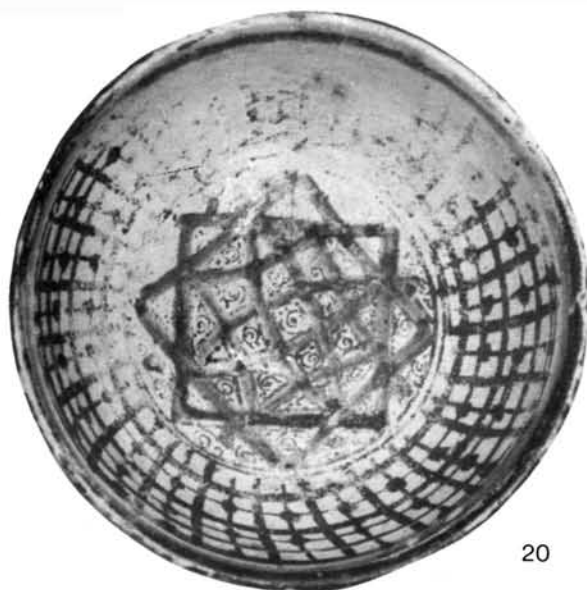


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Plate 3: Pula: tin-glazed bowls decorated in blue and lustre (Catalogue nos. 13-18; not reproduced at the same scale).



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Plate 4: Pula: tin-glazed bowls decorated in blue and lustre (Catalogue nos. 19-24; not reproduced at the same scale).





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Plate 5: Pula: tin-glazed bowls decorated in blue and lustre (Catalogue nos. 25-29; not reproduced at the same scale).

cal lustre line projects from re-entrant angles to reach enclosing band in field of scrolls. Scrolls also within triangle formed by squares' corners.

Chevrons.

Inv. no. 431.

Published by GONZALEZ MARTI, 1944: fig. 439; OLIVAR DAYDI, 1952: pl. 107 (lower).

24. (Pl. 4, 6). H 51-55, RØ 140, BØ 57. Pimply glaze outside. Light purplish blue (199) and deep brown (56) lustre.

Blue band below rim. Two pairs of narrow lustre lines define side. Cavity divided by narrow line rays with alternate segments left white or filled in lustre, irregularly at centre, with sequence exchanged in side zone.

Chevrons.

Inv. no. 378.

Published by GONZALEZ MARTI, 1944: fig. 434; OLIVAR DAYDI, 1952: pl. 111 (lower); LLUBIA, 1967: fig. 160.

25. (Pl. 5). H 63, RØ 148, BØ 65. Pink (C26) fabric with pale brown (C61) surface. Very pale blue (184) and light or moderate olive (106, 107) to light brown (57) lustre inside. Dark brown (59) lustre outside.

Lustre defined blue bands divide decor into three zones. Centre cp. 16. Outer zone of alternating chevrons cp. 22. Middle zone lustre defined blue arcade in field of scrolls with arc enclosing each angle.

Chevrons.

Inv. no. 422.

Published by GONZALEZ MARTI, 1944: fig. 442; OLIVAR DAYDI, 1952: pl. 108 (upper); LLUBIA, 1967: fig. 161.

26. (Pl. 5). H 65, RØ 153, BØ 55. Strong purplish-blue (196) and moderate olive brown (95) lustre.

Zoned as 25. In centre white eight petal star on lustre ground enclosed by two braced lustre defined blue bands forming four petal outline set in field of scrolls. Middle zone of bifid or Y motifs disposed as chevrons on 22 and 25. Outer zone consists of fourteen Arabic inscriptions alternately in white on lustre or in blue in field of scrolls and one broad lustre line.

Oblique lines and Catherine wheel.

Inv. no. 407.

Published by VAN DE PUT, 1932: 80 Vb), pl. 16b; GONZALEZ MARTI, 1944: fig. 443.

27. (Pl. 5). H 55-61, RØ 155, BØ 60. Strong purplish blue (196) and faded lustre.

Zoned as 25. White disk with lustre dot set as central zone of 26. In middle zone lustred arcade acts as ground for disk-centered white palmette, with stippled triangle in spandrel one of whose sides extends beyond lower apex to touch arch side. Outer zone of eight Arabic inscriptions alternately in blue on ground of lustre dots and lines and in white on lustre.

Oblique lines and Catherine wheel.

Inv. no. 416.

Published by VAN DE PUT, 1932: 80 Va); GONZALEZ MARTI, 1944: fig. 444.

28. (Pl. 5). H 59, RØ 153, BØ 57. Pimply glaze outside. Pale to brilliant purplish-blue (203, 195) and moderate yellowish brown (77) lustre.

Cavity divided into three segments by curving lustre lined blue fish with heads at centre and bifid tails touching rim. Fish flanked by irregular lustre stippled areas whose defining lines meet in centre. Lustre segments contain white Arabic inscriptions.

Chevrons.

Inv. no. 394.

Published by NISSARDI, 1897: 283; VAN DE PUT, 1932: 81; GONZALEZ MARTI, 1944: fig. 416; OLIVAR DAYDI, 1952: pl. 116 (upper).

29. (Pl. 5). Heavy. H 57-62, RØ 155, BØ 65. Red (?) fabric. Strong purplish blue (196) and faded lustre.

Blue band by rim and lustre lined blue fish with lobed tail reaching rim and head extending over centre. Blue band curving away from fish body to mark off segment partly filled by blue rope. Remaining

unclear lustre decoration includes within blue defined segment reserved lustre segment between rope and fish and without, two broad lines from fish fins to rim, one curving from head (R-facing bird with fish as wing and body?) and one concentric line around fish. In outer zone facing fish head, row of disks on stalks separated by irregular line defined stippled areas and within lustre defined segment over fish fins lustre inscription enclosed in pentagon. Within zone near fish number of hatched line defined areas.

Oblique lines and Catherine wheel.

Inv. no. 414.

Published by NISSARDI, 1897: 283.

- 30-33. (Fig. 3). Jugs with relatively small spherical body, tall slightly everted neck with externally thickened rounded rim, cut away for projecting lip which is triangular in plan and thickened at tip. Oval or round sectioned handle attached below rim and pressed into maximum body girth or immediately above it. Splayed ring foot in marked steps or bevelled. Usually completely covered in yellowish white (92) glaze. Decorated in lustre and in one case also in blue, but with no trace within foot.

30. (Pl. 7). Projecting lip tip. Handle base extended along body. Bevelled foot rim. H 195, BØ 90, HW 20. White (A41) surfaced fabric. Light reddish brown (42) coat within foot and jug. Moderate blue (182) and grayish to dark grayish yellow (90, 91) lustre outside and moderate olive brown (95) lustre within neck.

Vertical lustre defined bands alternately filled in blue and lustre and separated by narrow white strip, delimited by similar blue horizontal bands on lower body and below rim. Rim band curves under lip. Lustre covers rim, handle and lip outside. Inside neck band of linked disk-centered diamonds within horizontal lines beneath rim with upper line curving under lip perforation.

Inv. no. 427.

Published by NISSARDI, 1897: 282-3; OLIVAR DAYDI, 1952: pl. 112.

31. (Fig. 3, Pl. 7). H 20, BØ 93, HW 20. Worn deep, dark and grayish yellowish brown (75, 78, 81) lustre.

Broad band on and below rim also covers lip. Broad irregular band below neck-body join. Otherwise neck and body covered by grid of narrow vertical lines and broader horizontal ones.

Inv. no. 425.

Published by NISSARDI, 1897: 282-3; OLIVAR DAYDI, 1952: pl. 114.

32. (Pl. 7). Triangular notch in lip base. H 201, BØ 90, HW 18. Faded lustre.

Traces of grid of narrow lines on neck with arc closing upper R corner.

Inv. no. 428.

33. (Pl. 7). Handle broken off. H 210, BØ 85, HW 16. Yellow red (D36) fabric with white (A41) surface. Glaze crawl on body. Dark grayish yellow (91) lustre.

Decor in six horizontal zones with lustre bands beneath rim, over neck body join and separating body zones. From top, R pointing chevron band, grid and reserve lustre zone of bidifs or Y motifs cp. 26. On body, unclear broad zone of hanging lustre arcade bearing white arcs with stippled triangles in spandrels below (cp. 27), followed by L pointing chevron band and series of vertical lines connected by hooked tops (gadabouts).

Inv. no. 429.

Published by GONZALEZ MARTI, 1944: fig. 449; OLIVAR DAYDI, 1952: pl. 110.

34. (Fig. 4, Pl. 6). Bowl with straight everted side and oblique brim. Ring foot, laterally pierced with circular raised ridge on base. H 52, RØ 142, BØ 50. Light red (C36) fabric with pale yellow (C72) surface. Pale yellow (89) glaze restricted to upper surface. Moderate brown to brownish black (58, 65) decoration.

Concentric line towards brim edge and at side base join. On base triangle marked with five diagonal lines and with small triangle enclosing line on shorter side.

Inv. no. 401.



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Plate 6: Pula: nos. 6, 10, 24, lustre decorated reverses of tin-glazed bowls; no. 34, brown decorated yellow glazed bowl; no. 35, purple and green decorated tin-glazed bowl; no. 39, lead-glazed bowl (Catalogue nos. 6, 10, 24, 34-35, 39; not reproduced at the same scale).





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Plate 7: Pula: tin-glazed jugs decorated in blue and lustre, 31 only in lustre (Catalogue nos. 30-33; not reproduced at the same scale).

Published by NISSARDI, 1897: 282; OLIVAR DAYDI, 1952: pl. 62 (lower).

35. (Fig. 4, Pl. 6). Bowl with ring foot pierced laterally before firing. H 58, RØ 142, BØ 54. Light red (C38) fabric with pale brown (61) fabric. Almost yellowish white (92) glaze restricted to upper surface. Tripod stilt scars on inside base. Decoration in blackish purple (230) lines in part filled with light to dark green (144, 146) wash. Base divided by four green filled petals defined in purple and with double median line, separating broadly defined triangular segments containing scroll and arc, dot and/or line. Side zone defined by purple lined green concentric bands divided into four rectangles by short vertical bands, two filled with oblique lines between pairs of lines, and two divided by green filled diagonal band separating triangles filled like those on base. Inv. no. 398. Published by GONZALEZ MARTI, 1944: fig. 211; OLIVAR DAYDI, 1952: pl. 5 (lower).

36. (Fig. 4, Pl. 8). Heavy, pyriform jug with waisted foot, short everted neck, pinched lip and rectangular section handle attached below rim and to maximum girth. H 183, BØ 98, HW 23. Red (E38) fabric. Dark orange yellow (72) glaze inside, over lower outside and partly covering base. Pale yellowish pink (31) glaze over rest of outside except unglazed area near handle. Decoration of blackish purple to black (230, 267) lines and moderate green (145, parts range from very light to very dark, 143, 147) bands, mainly on light glaze but also on unglazed and dark glazed areas. Pairs of horizontal lines around maximum girth and neck define body decoration of alternate horizontal pairs of lines and band. Two sets of three vertical lines delimit border of three S-curves and/or chevrons which flank handle decorated alternately with diagonal line and band. Green rope around neck and line below rim. Inv. no. 424. Published by NISSARDI, 1897: 282.

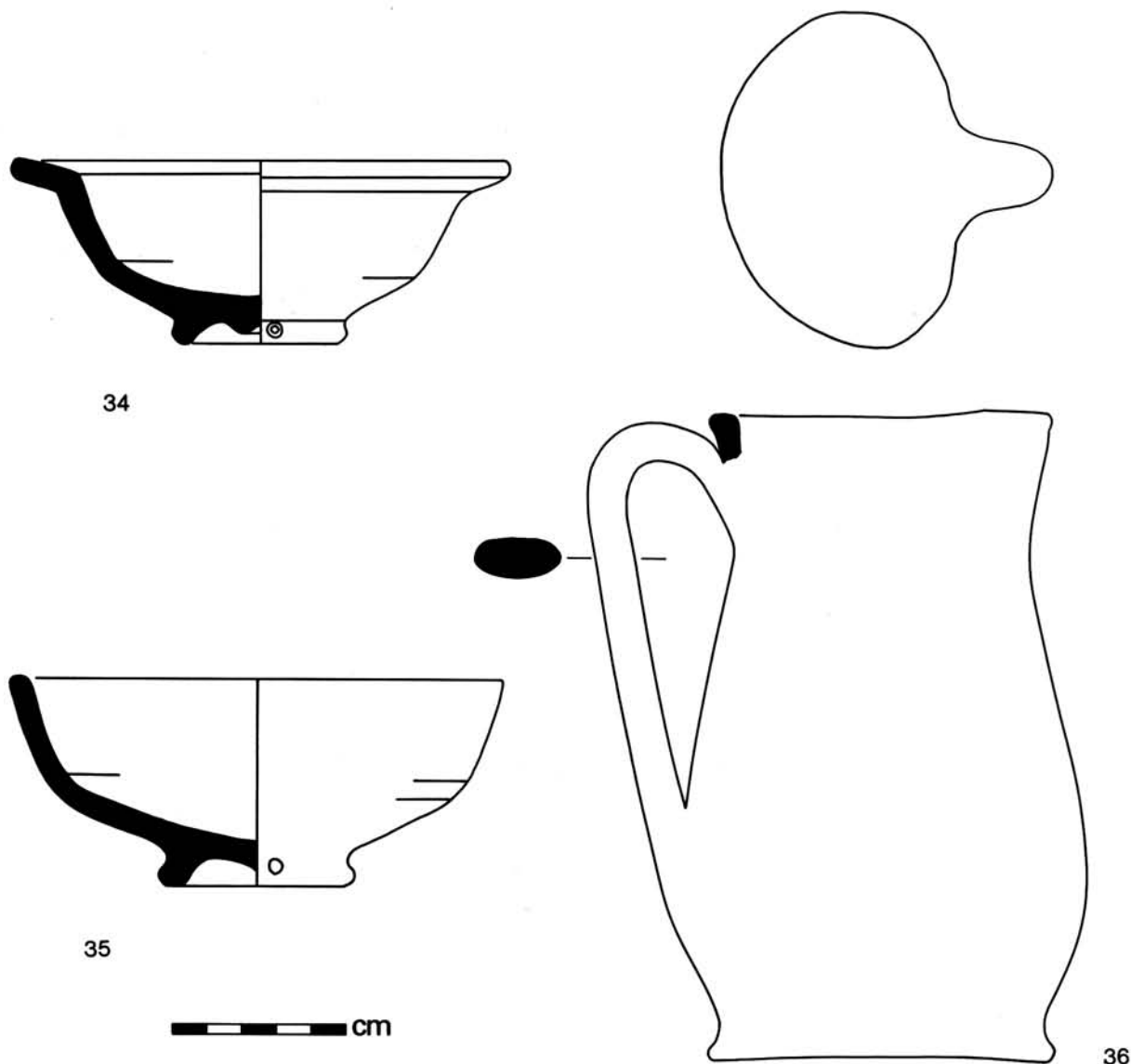


Fig. 4: Pula: no. 34, yellow glazed bowl decorated in brown; nos. 35-36, tin-glazed bowl and jug decorated in purple and green (Catalogue nos. 34-36; scale 1:3).

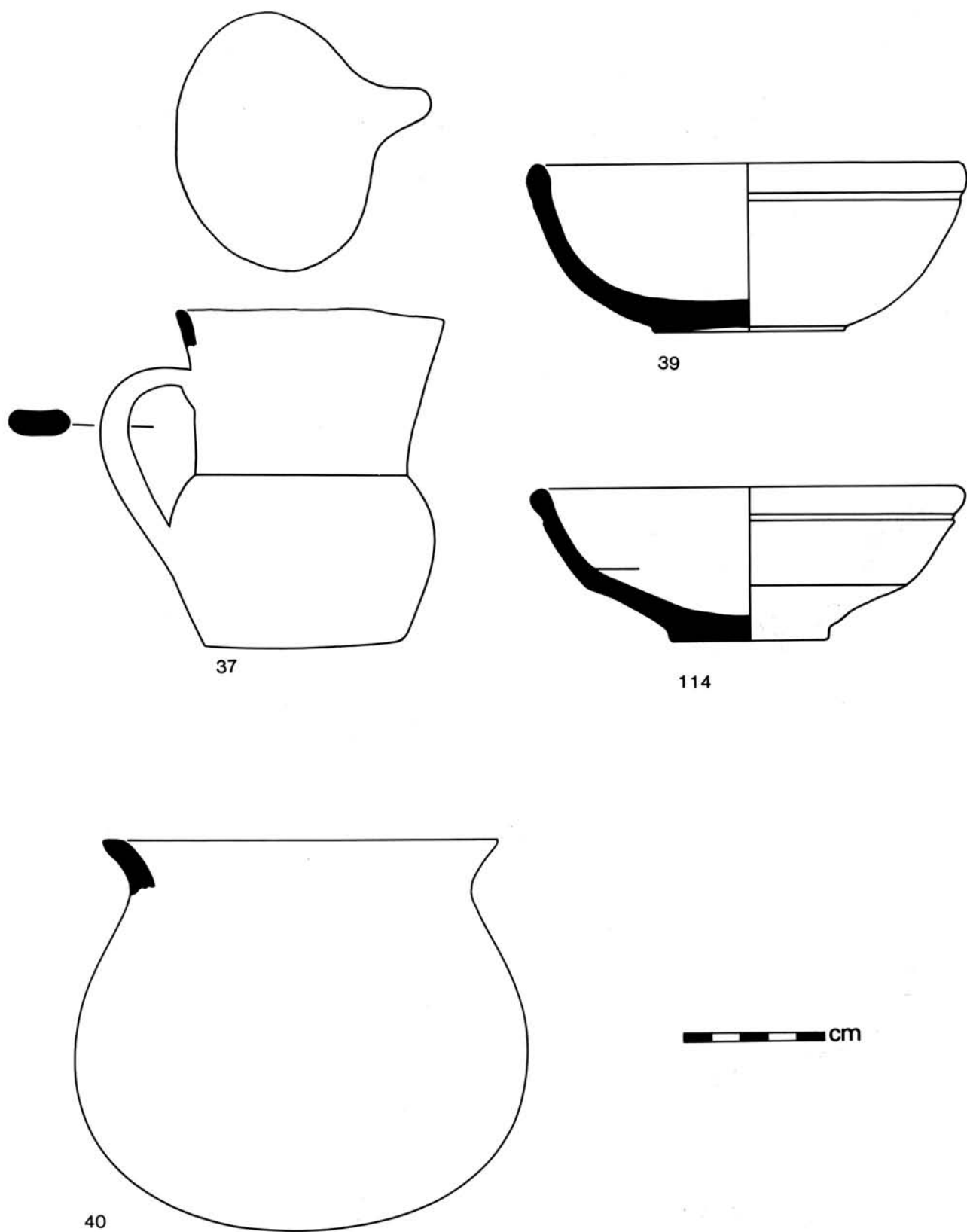


Fig. 5: Pula: nos. 37, 39, plain lead-glazed pottery; no. 40, unglazed cooking pot. Settimo San Pietro (prov. Cagliari); no. 114, glazed bowl (Catalogue nos. 37, 39-40, 114; scale 1:3).



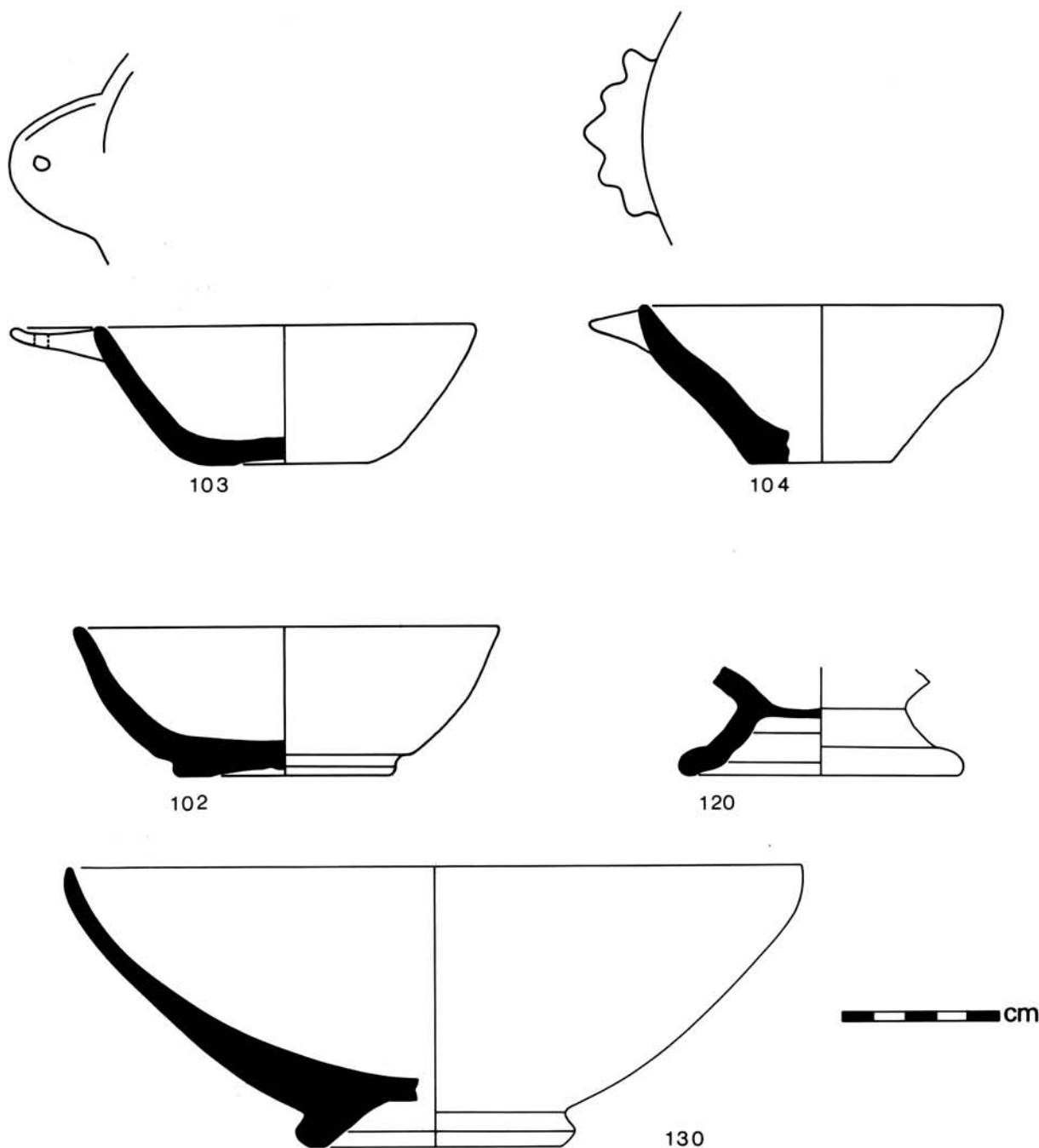


Fig. 6: Other Sardinian finds of Spanish lustreware: nos. 102-104, Settimo San Pietro (prov. Cagliari), lustre ornament; no. 120, S. Pietro Paradiso (prov. Cagliari), discoloured glaze; no. 130, S. Pietro di Sorres (com. Borutta, prov. Sassari), lustre and blue (Catalogue nos. 102-104, 120, 130; scale 1:3).

**37-39.** Vessels with unevenly coloured glaze. 37-38. Jugs with rounded body, tall everted neck, pinched lip and strap handle. Glazed all over except on base. 39-42. Hemispherical bowl with disc foot.

**37.** (Fig. 5, Pl. 8). Handle attached to maximum girth and half way up neck. Finely rilled surface. H 121, BØ 70, HW 20. Brown (D62) fabric surface. Grayish olive green (127) glaze, moderate yellow (87) in places.  
Inv. no. 426.

**38.** (Pl. 8). Handle attached to maximum girth and rim. H 95, BØ 60, HW 20. Very pale brown (C62) pimply fabric surface. Dark olive (108) glaze, in part moderate yellow (87), with dark olive brown (96) specks, sparse within.  
Inv. no. 27322 or 27922, now 423.  
Published by NISSARDI, 1897: 282.

**39.** (Fig. 5, Pl. 6). Hemispherical bowl with slight, concave disc base and thickened rim. Groove on upper outside. H 60, RØ 156, BØ 70. Pale



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Plate 8: Pula: no. 36, tin-glazed jug decorated in purple and green; nos. 37-38, lead-glazed jugs; no. 40, unglazed jar; nos. 41-42, glass bottles (Catalogue nos. 36-38, 40-42; not reproduced at the same scale).

brown (C61) pimply fabric surface. Wire detachment marks on base. Dark yellow (88) glaze with brown specks inside overlapping onto outer side. Scar in external glaze.

Inv. no. 403.

40. (Fig. 5, Pl. 8). Spheroid jar with short everted neck terminating in inward sloping flattened rim. Knife trimmed round base. H 140, max. Ø 162, RØ 140. Red brown (F34) fabric. Outside fire (?) blackened. Inv. no. 435.

- 41-42. Green (?) glass bottles with straight-sided body, omphaloid base, sloping shoulder, tall neck and inclined brim.

41. (Pl. 8). H 150, body H  $\approx$  80, shoulder Ø 60, base Ø  $\approx$  35, omphaloid base depth 7, neck H  $\approx$  60, neck Ø 22, RØ  $\approx$  38, mouth Ø  $\approx$  14. Inv. no. 27376, now 432.

42. (Pl. 8). Heavy. H 130, body H 65, body Ø 60, base Ø 50, omphaloid base depth 9, neck H 55, neck Ø 25, RØ 30+, mouth Ø 15. Inv. no. 434.

## 9. DESCRIPTION OF SETTIMO SAN PIETRO GROUP AND SPANISH LUSTREWARE FOUND ELSEWHERE IN SARDINIA

### Settimo San Pietro (prov. Cagliari)

- 101-104. Bowls covered in yellowish white (92) glaze and decorated in lustre.

101. (Pl. 9). Disc-footed hemispherical bowl. H 47, RØ 125, BØ 60. Moderate brown (58) lustre inside. Cross pattern of narrow, broad and irregular lines with lustre blobs in angle enclosed by similar. Concentric lines below rim. Inv. no. 391.

102. (Fig. 6, Pl. 9). Bowl with concave disc foot. H 48, RØ 136 (?), BØ 67. 1 (2?) stilt scars. Moderate brown (58) lustre. Broad cross in centre defined by line with triangle, line or similar in angles, all enclosed by broad band flanked by concentric lines. On side similarly defined bands form series of facing arcs enclosing wavy band and lines. Disc and arcs in spandrels. Concentric lines below rim. Four horizontal concentric lines on outside. Inv. no. 395.

103. (Fig. 6, Pl. 9). Bowl with concave base and horizontal pierced lug handle, triangular in plan and attached to rim. H 43, RØ 122 (?), BØ 40, handle projects 30. Faded lustre. Two concentric lines below rim with trace of pendant triangles. Inv. no. 401.

104. (Fig. 6, Pl. 9). Bowl with flat base and horizontal lobed lug handle attached to rim. H 49, RØ 120, BØ  $\approx$  45, handle projects 20. White (A41) fabric surface. Unclear deep brown (56) lustre. Traces of chevron vertical lines and filled segment on inner side. Arc on outside. Inv. no. 383.

- 105-106. (Pl. 9). Bowls with everted rim. RØ  $\approx$  100 and 120. Slipped, incised and painted in green and yellow brown. Inv. nos. 388, 389.

107. (Pl. 10). Dish or bowl with narrow brim. RØ  $\approx$  150. Yellow and brown marbled decoration. Inv. no. 380.

108. (Pl. 10). Dish or bowl with incised line on narrow brim. RØ  $\approx$  190. Green patches and white curdled slip on red-brown ground. Inv. no. 379.



Fig. 7: Map of Italy locating places mentioned.

- 109-114. Hemispherical bowls with disc foot. Wheel-turned grooves visible under internal glaze. Glaze sometimes overlaps upper outside.

109. H 53, RØ 150 (?), BØ 57. Deep yellowish brown (75) glaze inside. Brilliant yellow (83) decoration on inner side. Two concentric bands define zone with broad horizontal wavy motifs. Inv. no. 384.

110. Raised ridge around inner base. H 47-53, RØ 136, BØ 45. Brown red (D34) fabric surface. Moderate olive brown (95) glaze with dark olive brown (96) specks overlaps onto outer side. Inv. no. 392.

111. R 48, RØ 128, BØ 40 (?). Light brown red (D43) fabric surface. Mottled light olive-brown (94) glaze, dark yellow (88) on rim, overlaps onto outer side. Inv. no. 382.

112. H 49, RØ 140, BØ 40. Yellow red (D46) fabric. Wire detachment marks on foot. Strong brown (55) glaze, moderate yellow (87) on rim. Inv. no. 393.

113. H 40, RØ 123, BØ 47 (?). Light brown red (D43) fabric surface. Deep yellowish brown (75) glaze. Inv. no. 385.

114. (Fig. 5). Worn with groove on upper outside. H 54, RØ 145 (?), BØ 55. Red (?) fabric. Light coloured (?) slip or glaze. Inv. no. 386.

### S. Pietro Paradiso (prov. Cagliari)

120. (Fig. 6). Splayed ring foot fragment in marked steps or bevelled. Surviving H 34, BØ 90. Slightly porous, faintly hard, grayish yellow (90) fabric with black speckle inclusions. Buff surface where external glaze missing. Almost entirely blackened opaque glaze.

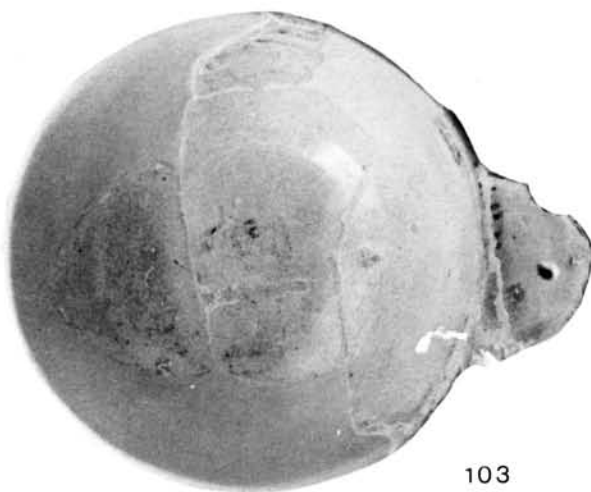




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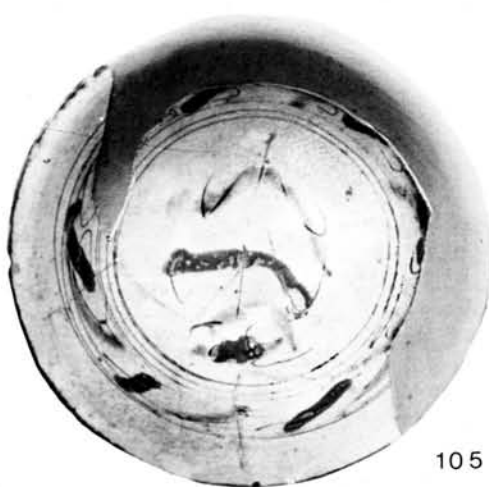
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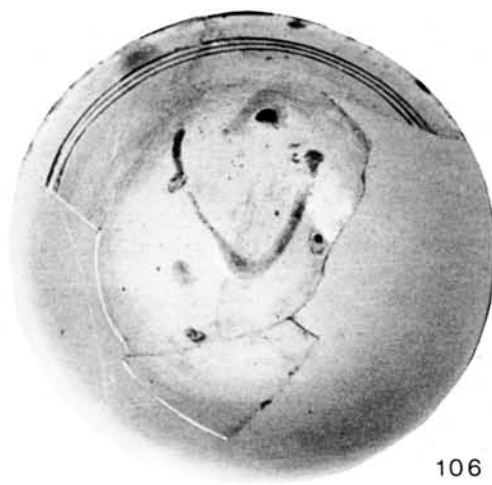
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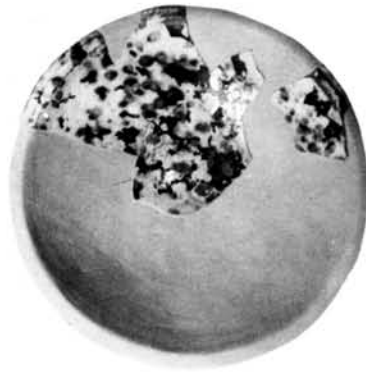


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Plate 9: Settimo San Pietro (prov. Cagliari): 101-104, monochrome lustre decorated tin-glazed bowls; 105-106, incised slipped bowls painted in brown and green (Catalogue nos. 101-106; not reproduced at the same scale).



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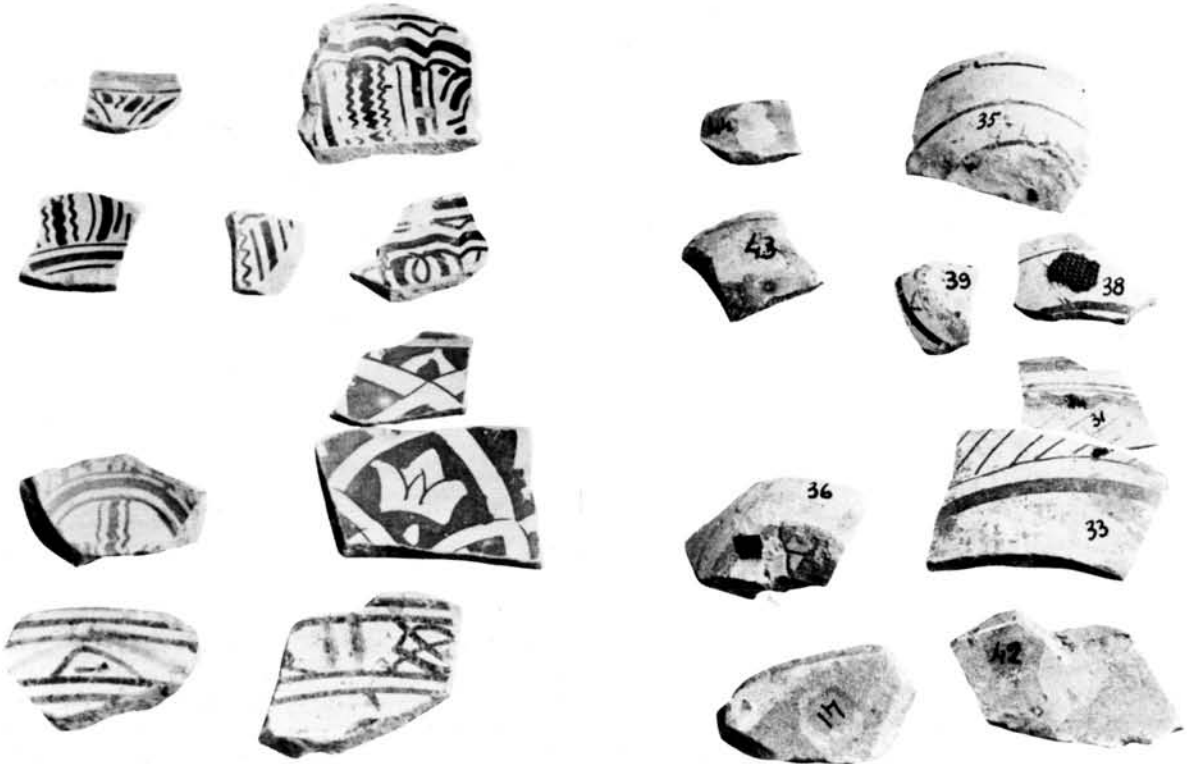


Plate 10: Settimo San Pietro (prov. Cagliari): nos.107-108, slip decorated brown lead-glazed dishes, 108 with green patches. San Pietro di Sorres (com. Borutta, prov. Sassari): nos. 130, 31, 33, tin-glazed bowl decorated in blue and lustre: nos. 35-36, 38-39, 43-44, tin-glazed sherds decorated only in lustre: nos. 41-42, brown and green decorated tin-glazed sherds. (Catalogue nos. 107-107, 130; not reproduced at the same scale).

## S. Pietro di Sórres (com. Borutta, prov. Sassari)

130. (Fig. 6, Pl. 10). Bowl with everted ring foot. H 90, RØ 234, BØ 82. Hard, very pale brown (C64) fabric. Smooth, glossy yellowish white (92) all over glaze. Light blue (181) and moderate olive brown (95) lustre.

Centre cp. 26 on lustre ground enclosed by two braced lustre defined blue squares. Reserved lustre decoration on side, in two tiers, of pointed arches based on corners of lustre line defined band around braced squares. Within inner tier two opposed arcs. In outer crown over spot. In spandrels small pointed arch touching blue marked plain band around rim.

External decoration in lustre of two broad concentric lines enclosing three narrow ones. Row of oblique lines based on lower narrow line and capped by broad crenated line.

Kept in small museum attached to S. Pietro di Sórres (catalogue nos. 25, 31, 33, 34) with other postherds found on the *monte*, including monochrome lustre bowls (Pl. 10, nos. 35-36, 38-39, 43-44; cp. Settimo San Pietro), archaic maiolica jugs, Catalan (?) green and brown tin-glazed open form rims (Pl. 10, nos. 41-42), black and brown decorated greenish glazed ring base and brown and green painted incised slipped bowl base (BLAKE, 1986: 328, pl. 24).

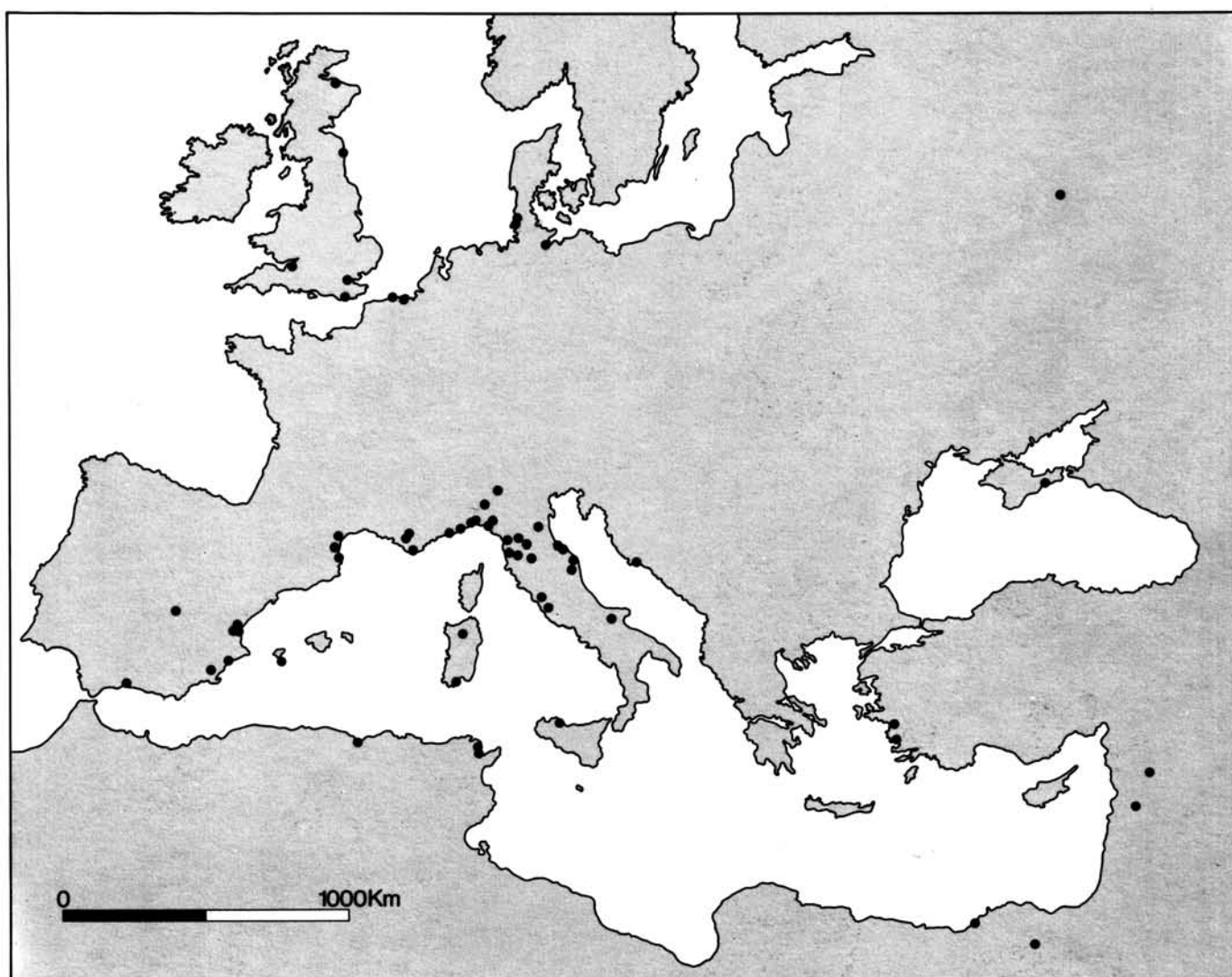


Fig. 8: Map indicating findspots of Pula-type vessels.

## POSTSCRIPT

When the revision of this text was almost complete, Berti and Tongiorgi published separately their Toledo conference paper on Spanish pottery found at Pisa (BERTI-TONGIORGI, 1985). A significant part of their monograph (pp. 13-23) is devoted to the advocacy of a more restricted definition of the Pula tupe. As they present a rather different view, it seems appropriate to consider it in a postscript.

They propose that the term «Pula type» should be limited to an early phase represented by the Pula find itself, dated by the churches at Marti and S. Giovanni in Rome to the second quarter of the 14th century. The pottery at Varazze and Palermo is associated with this phase (pp. 14, 20). The *bacini* on S. Maria Maggiore at Rome, datable to the 1370s are, together with that form from S. Anna at Pisa, perceived as a later development, representing the transition between the Pula type and wares made in the 15th century (pp. 14,





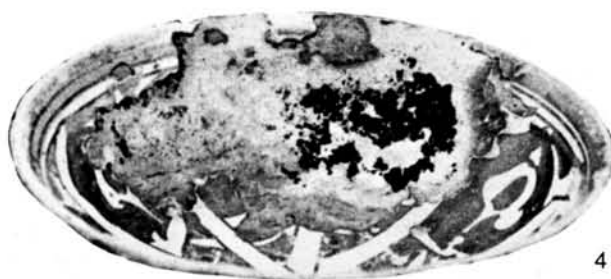
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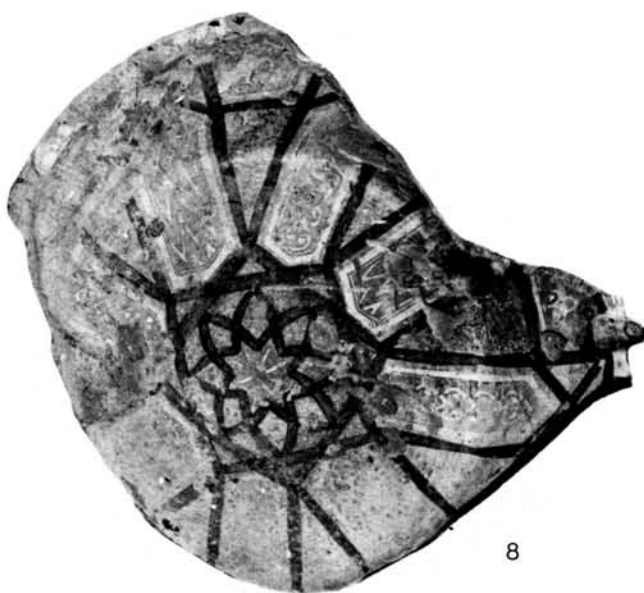
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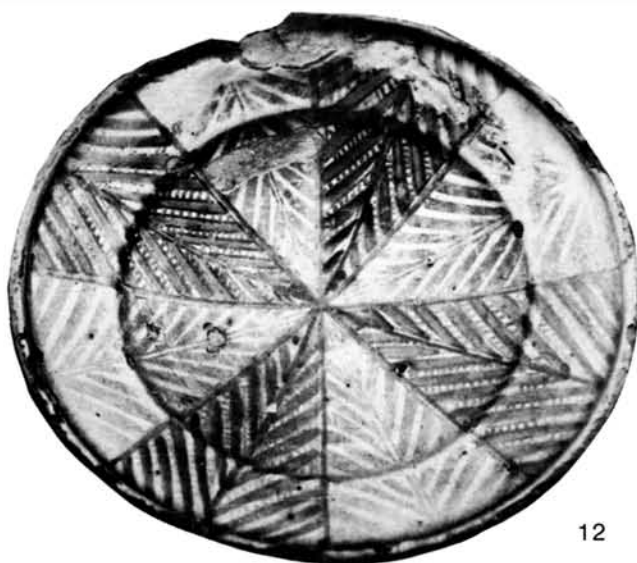


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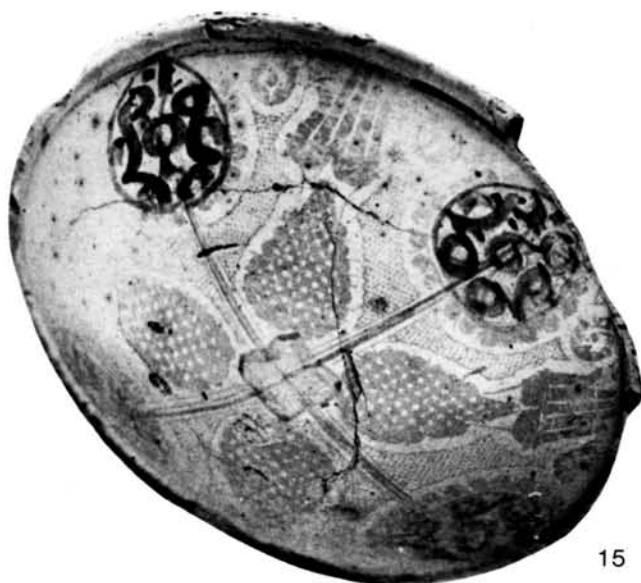
Plate 11: Varazze, S. Ambrogio bell tower, nos. 1-4, 7-8: tin-glazed *bacini* decorated in blue and luster. Approximate rim diameters: no. 1-290 mm; no. 3 int. H 110 mm, neck Ø 120 mm; no. 4 - 150 mm; no. 8 - 350 mm (not reproduced at the same scale).



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Plate 12: Vazze, S. Ambrogio Bell tower, nos. 11-12, 15-18: tin-glazed *bacini* decorated in blue (no. 15 in purple instead) and lustre. Approximate rim diameters: no. 11 - over 180 mm; no. 12 - over 190 mm; no. 15 - 200 mm; no. 16 - 120 mm; no. 17 - 135 mm; no. 18 - 180 mm (not reproduced at the same scale).

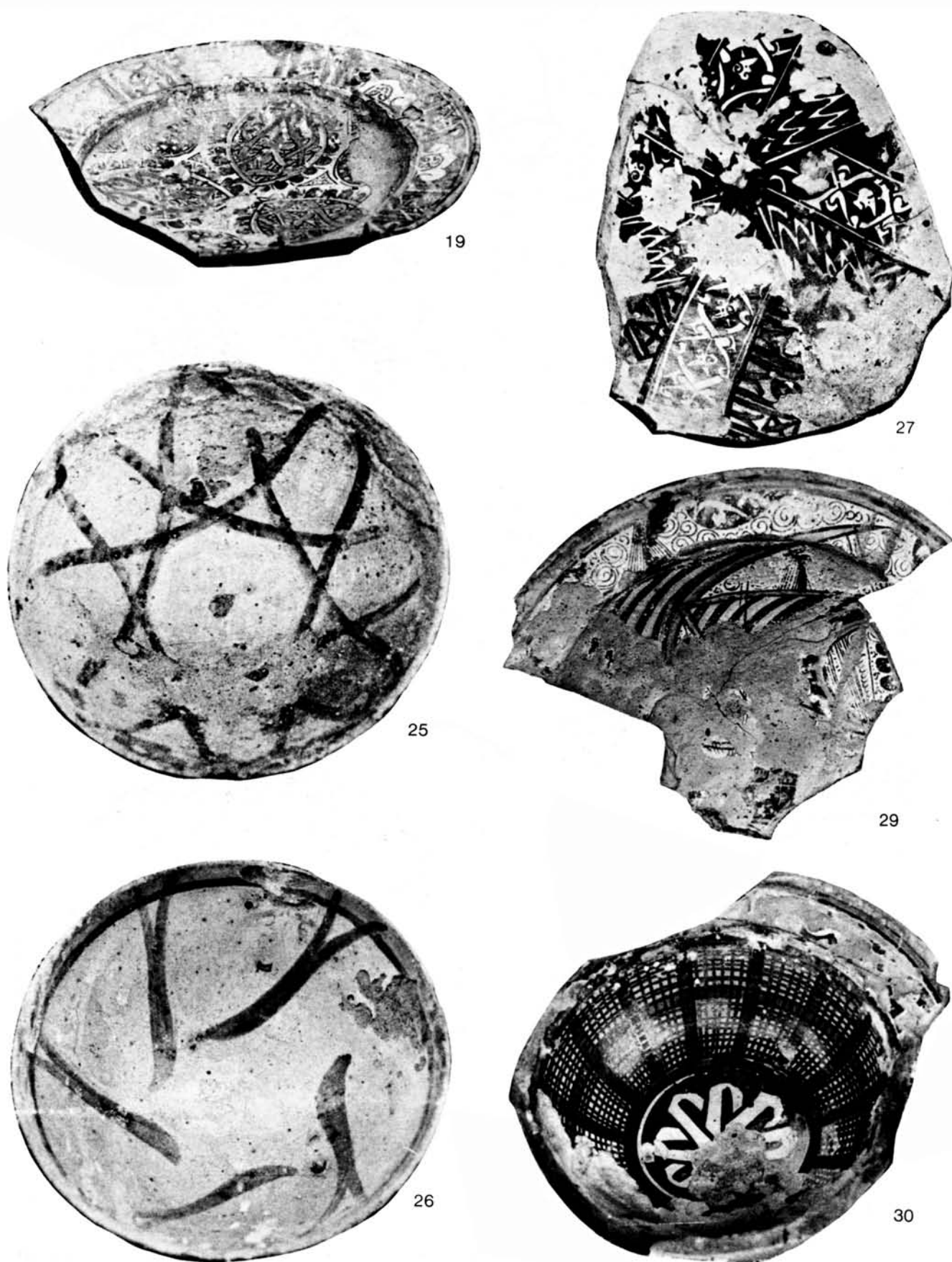


Plate 13: Varazze, S. Ambrogio bell tower, nos. 19, 25-27, 29-30: tin-glazed *bacini* decorated in blue and lustre. Approximate rim diameters: no. 19 - 210 mm; no. 25 - 120 mm; no. 26 - 140 mm; no. 27 - 250 mm; no. 29 - 240 mm; no. 30 - 130 mm (not reproduced at the same scale).

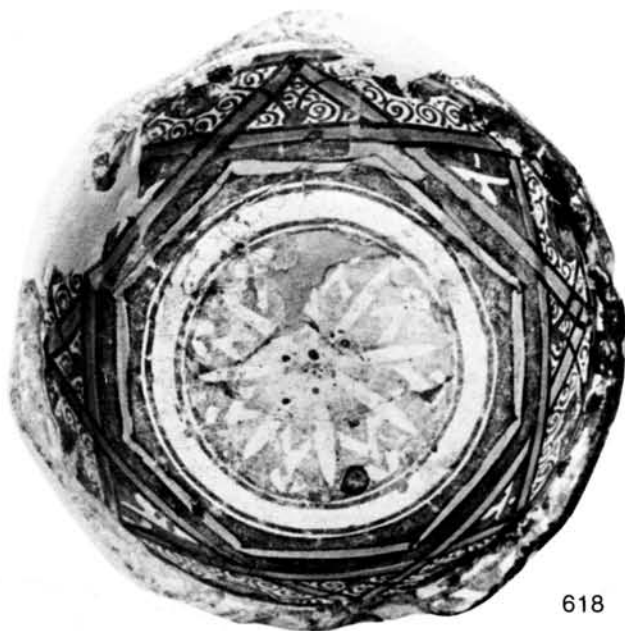




Plate 14: Malaga, Alcazaba store: tin-glazed vessels, nos. 1-4, with fish decoration in blue, no. 2 - H 58 mm, RØ 165 mm, BØ 65 mm; no. 3 - incomplete H c. 150 mm; no. 4 - restored H 230 mm; nos 5-6, with lustre marks within ring feet, no. 5 - BØ 95 mm; no. 6 - BØ 35 mm (not reproduced at the same scale).



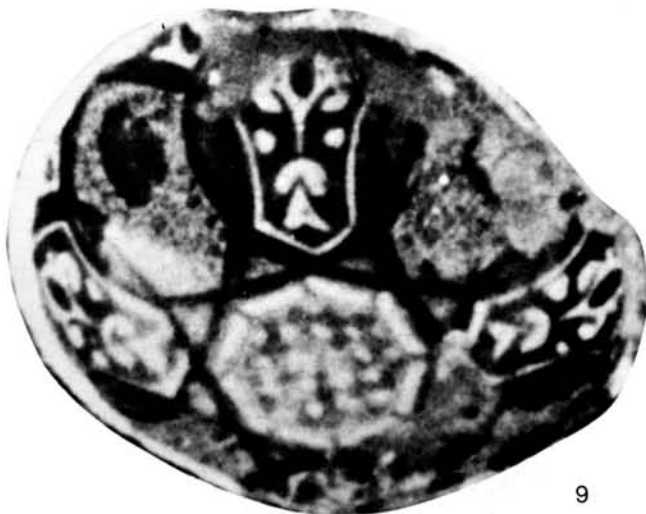
1517



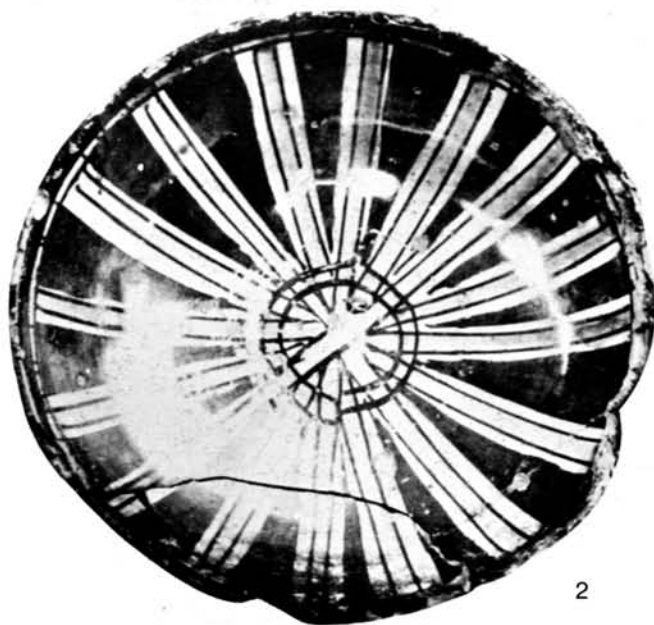
618



8



9



2



6

Plate 15: Pula-type bowls decorated in blue and lustre on a white ground: no. 1517, unknown provenance, Civiche Raccolte d'Arte Applicata ed Incisioni, Milan, H 62 mm, RØ 160 mm, BØ 60 mm (museum inventory no.); no. 618, removed from S. Anna to S. Matteo National Museum, Pisa, H c. 60 mm, cavity Ø 127 mm (*bacino* no.); nos. 8-9, S. Maria Novella, Marti (prov. Pisa; *bacini* nos.); nos. 2, 6, S. Andrea, S. Giovanni hospital, Rome, no. 2 - int. H 40 mm, RØ 155 mm, no. 6 - int. H 40 mm, RØ 156 mm (*bacini* nos.).  
(Not reproduced at the same scale).



9



11



14



16



29



31

Plate 16: Pula-type *bacini* decorated in blue and lustre on a white ground on S. Maria Maggiore, Rome: no. 9 - int. H 18 mm, RØ 186; no. 11 - int. H 15 mm, RØ 186 mm, BØ 73 mm; no. 14 - int. H 53 mm, RØ 255 mm; no. 16 - int. H 23 mm, RØ 190 mm; no. 29 - int. H 35 mm, RØ 190 mm; no. 31 - int. H 45 mm, RØ 147 mm (*bacino* nos.).  
(Not reproduced at the same scale).





990



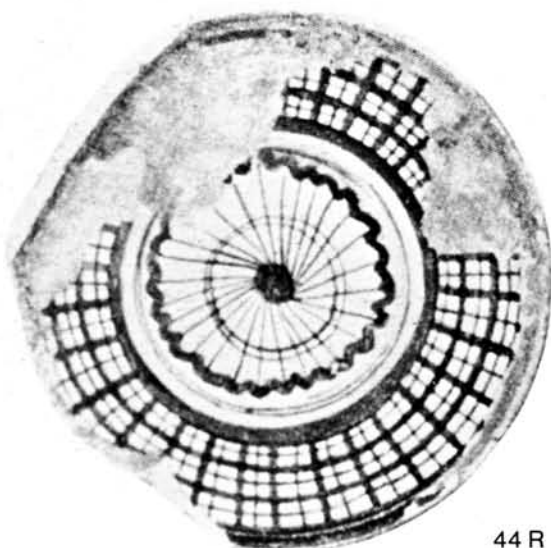
991



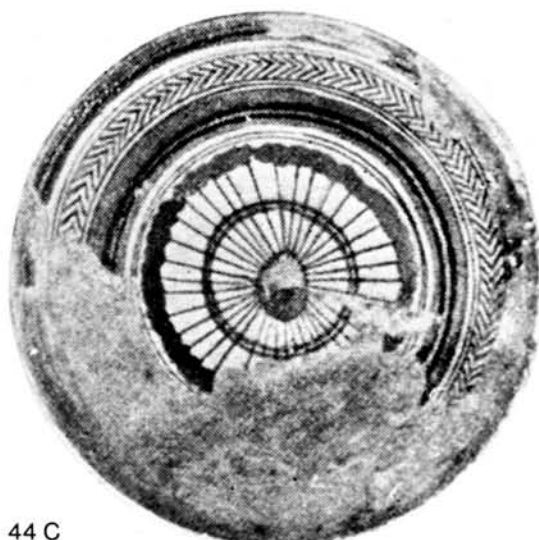
992



993



44 R



44 C

Plate 17: Spanish tin-glazed *bacini* decorated in blue and lustre (nos. 990-993) and probably lustre only (nos. 44C, R), once on Palazzo Chiaramonte chapel, Palermo. Approximate measurements of nos. 990-993: H 68 mm, RØ 122-3 mm, BØ 53-4 mm (nos. 990-993, Galleria Nazionale di Sicilia inventory nos; nos 44C, 44R, GABRICI-LEVI, 1932: fig. no.). (Not reproduced at the same scale).

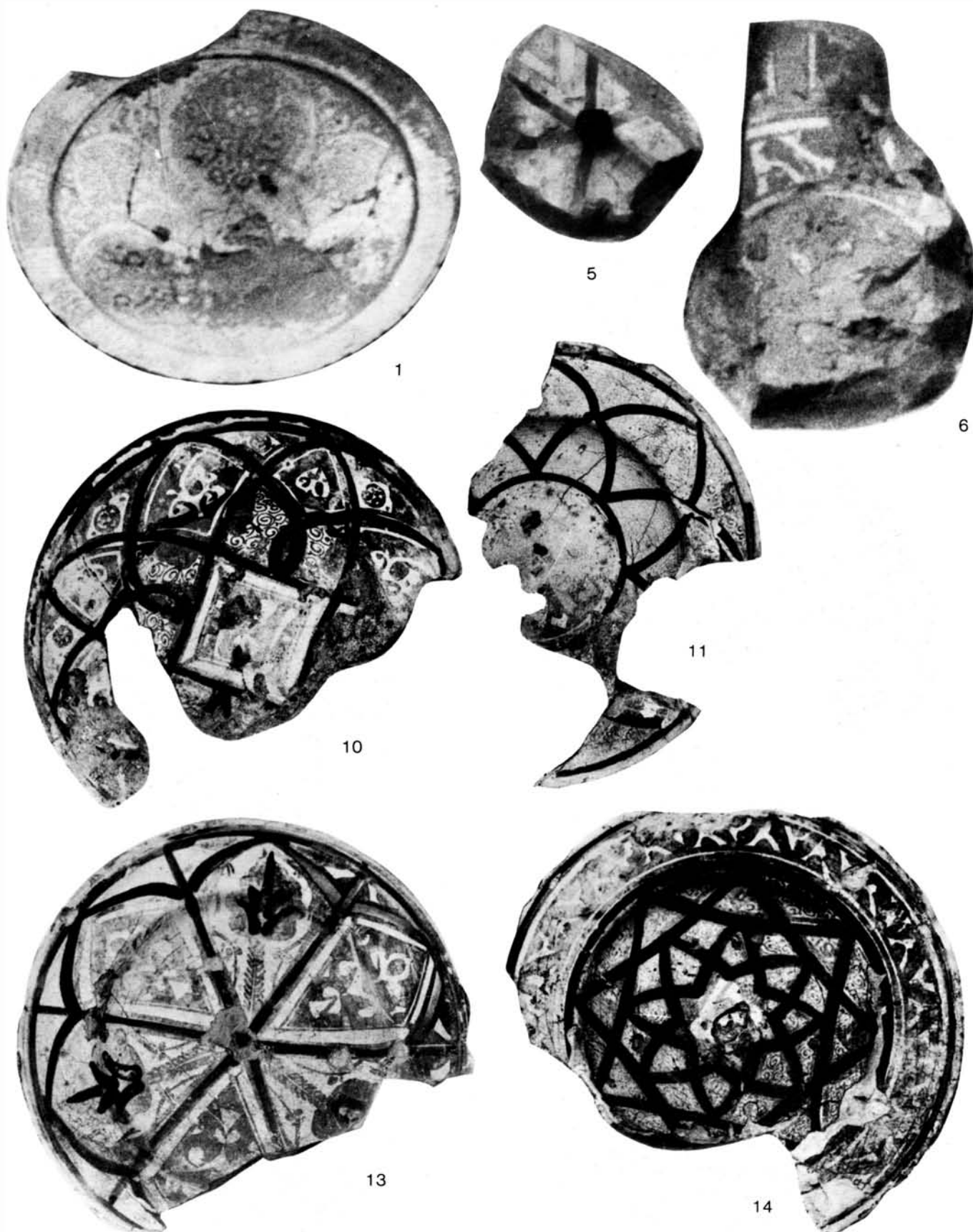


Plate 18: Pula-type *bacini* in Liguria decorated in blue and lustre on a white ground (colours unclear on no. 6); no. 1, S. Biagio, Finalborgo (com. Finale Ligure, prov. Savona); nos. 5-6, S. Tommaso, Pigna (prov. Imperia); nos. 10-11, 13-14, S. Ambrogio, Allassio (prov. Savona), int. H  $\approx$  20 mm, R $\varnothing$   $\approx$  180 mm.

(*Bacino* nos; not reproduced at the same scale).



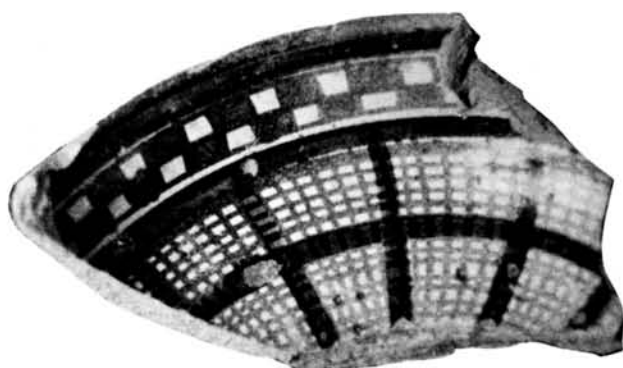
1



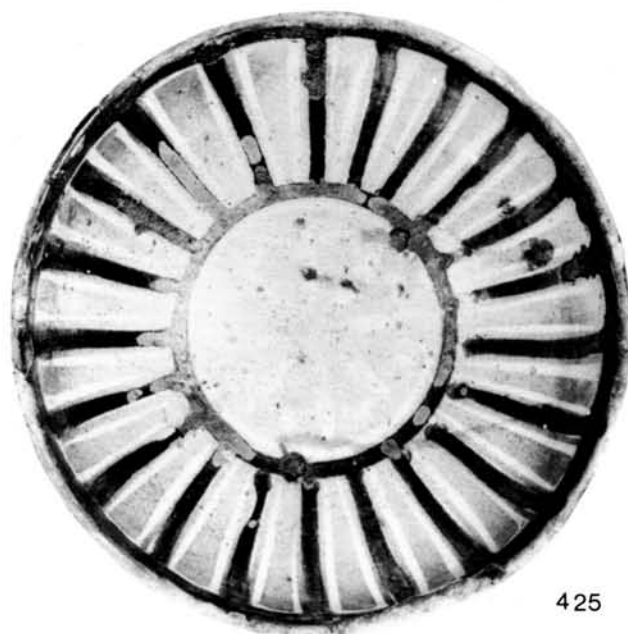
4



6



115



425



426

Plate 19: Pula-type bowls in the Marche decorated in blue and lustre on a white ground: nos. 1, 4, 6, S. Francesco, Sarnano (prov. Macerata), no. 1 - RØ  $\epsilon$  120 mm, no. 4 - RØ  $\epsilon$  135 mm, no. 6 - RØ  $\epsilon$  125 mm (*bacino* nos.); no. 115 (archive no.), nos. 425-426 - H 50 mm, RØ 140 mm, BØ 70 mm (GRIMALDI 1975: fig. nos.) Santa Casa, Loreto (prov. Ancona).  
(Not reproduced at the same scale).



22-23). This contrasts with my view of S. Maria Maggiore as a variant within the Pula type (Chapter 7).

The evidence does, however, tell against their attempt to limit chronologically and stylistically the Pula type to the earlier part of the 14th century. The Palermitan chapel may have been built at the same time as S. Maria Maggiore; and the developments they exemplify in the latter's *bacini* relate in one instance (no. 29) to the relative size and shape of the dish and another (no. 14) is in fact identical to, and not an evolution of, a design at Pula (18). Berti and Tongiorgi have here been misled by González Martí's inaccurate water colours.

They also err in attributing to Pula bowls described by González Martí (1944: figs. 423-4) as being at Barcelona and Milan museums. Milan museum has no record of the latter which appears to be a photograph of no. 991 from Palermo. This is important as it is cited as a link between the Pula find and the earliest-date church at Marti. The Barcelona bowl bears a motif executed in a fine line of a curling stem marked by and enclosing disc petals or leaves which appears on later pottery (e.g. GONZÁLEZ MARTÍ, 1944: fig. 454).

Berti and Tongiorgi do as well provide information not in my paper. For instance they draw attention to the fact that Ballardini in his 1934 publication of the two later bowls now at Faenza museum did not mention their Palermitan provenance (p. 20). One wonders if the two missing *bacini* 44C and 44R removed from Palazzo Chiaramonte were given to the museum and later mislaid or destroyed during the war. Incorrect provenances are known to have been added to Faenza's post-war inventories (BLAKE-NEPOTI, 1984: 356-7). Amongst the material found at Pisa, Berti and Ton-

giorgi publish parallels for these missing *bacini* (pl. 3.11-13) one of which has a reserved lustre star in the centre (pl. 3.7). Another has a concave disc foot like the medallion bowls, nos. 992 and 993 (fig. 2.8). A similarly decorated jug of slightly different proportions from those from Pula (p. 42, fig. 2.5, pl. 3. 4-6) is compared to a jug in Brussels, which in turn also has analogous decoration to 30 (p. 20; GONZÁLEZ MARTÍ, 1944: fig. 548).

They also take up González Martí's suggestion that Pula-type designs should be compared with the Spanish ware apparently decorated only in blue (pp. 15, 22; BLAKE, 1972: 72). I ignored this relationship because the ware seem to date from the early 15th century (BLAKE, 1972: 62-63). Although most finds of this class at Rougiers were excavated from later contexts, a few did, however, come from the same phase as the Pula type (DEMIANS D'ARCHIMBAUD, 1980: 393-4). Chemical analysis of the major elements in the clay point to a Valencian source (DEMIANS D'ARCHIMBAUD-LEMOINE, 1980: 369), which may —along with the similar shape and size of the bowls— be interpreted as further evidence in favour of Valencian production of the Pula type.

As Berti and Tongiorgi cite the catalogue numbers of my 1972 paper and I have referred to the *bacino* numbers, a concordance is furnished here to aid comparison between our papers:

- BLAKE, 1972: no. 26 = Varazze *bacino* no. 26.
- BLAKE, 1972: no. 27 = *bacino* no. 12.
- BLAKE, 1972: no. 28 = *bacino* no. 30.
- BLAKE, 1972: no. 33 = *bacino* no. 8.
- BLAKE, 1972: no. 34 = *bacino* no. 29.

## ADDENDA

During 1986 two important items of information were kindly communicated to me concerning the places of manufacture of some of the pottery discussed in this paper. I am grateful to the editor of these proceedings, Juan Zozaya, for allowing me to add this brief note at the proof stage.

Analyses undertaken for Francesca Porcella (see **Preface**) by the *Sezione di Mineralogia Applicata all'Archeologia* of Genoa university suggests that 5 or 26, 11, 16, 17 or 28, 21, 27, 34, 35 and 101 are Valencian (16 and 35 may be from Paterna),

33 may be made of clay from the Malagan area, and 37, 39, 109 and 111 could be Sardinian.

The arabic inscriptions on the Blossom's Inn dish, London (ch. 3 para 1 and ch. 4 para 3), read, according to Abdullah Talal, the draughtsman of the Bruges archaeological unit, *Malaga al mal* meaning «Malaga the treasure», an alliterative slogan probably to be understood as «Malaga the great» or «Malaga is best» (HURST, pers. comm.).

January 1987

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## Abbreviations

«Albisola» = *Atti del Convegno Internazionale della Ceramica*.  
 Toledo = *II Coloquio Internacional de Cerámica Medieval del Mediterráneo Occidental*.  
 Valbonne = *La céramique médiévale en Méditerranée occidentale X-XV<sup>e</sup> siècles*, Paris.