MEDIEVAL AND POST-MEDIEVAL GLASS FROM RUA DA JUDIARIA, ALMADA, PORTUGAL

TERESA MEDICI

The town of Almada is located on the River Tagus opposite Lisbon (Fig. 1). Excavations at Almada have revealed continuous occupation from the late Neolithic, through Bronze Age, Iron Age, Roman epoch and Islamic to medieval periods. The site at Rua da Judiaria is located in the old part of the town (Almada Velha), and was excavated between 1992 and 1994 by a team from the Museu Municipal de Almada (MMA). It yielded an important medieval and post-medieval record. The site is now part of the museum and is open to the public.

FIG. 1 Location of the town of Almada

The first phases of occupation at the site are represented by 26 pits carved in the bedrock during the Islamic period. They were probably used from the 12th to the 15th century, and then sealed in the 15th century, when the area was restructured for the building of new dwellings. These were short-lived, as they were abandoned during the 16th century, when the whole area began to function as a courtyard which was subsequently covered with a large deposit of 16th to 20th-century rubbish.

The excavations revealed an important group of finds, featuring Chinese, Italian, Spanish and Portuguese pottery, glass objects, coins, etc., indicating that Almada was closely linked to European countries and Portugal’s overseas colonies (Barros 2000).

THE GLASS OBJECTS

About 600 fragments of glass objects were collected at Rua da Judiaria from pits and rubbish deposits. Here I present an overview of the glass found in contexts dated to the 15th–17/18th century. Since the complete results of the excavations are still unpublished, the chronological framework used here is based upon the report submitted by the field director, Mr Luis Barros (MMA).

Most of the vessels are free-blown; some of them have mould-blown decoration and pontil marks. The fragments are mainly made of colourless transparent glass, sometimes with a blue, green or yellow tinge. Another prevalent colour is green, in shades ranging from blue green, light green and dark green to olive green. A few fragments are light blue, yellow, purple or red. Opaque black or white glasses are also present. In some cases, it is not possible to determine the colour and quality of the glass due to weathering and corrosion.

CATALOGUE

Fifteenth-century contexts

- beakers with applied pinched threads (Fig. 2.1, light green, and Fig. 2.2, colourless);
- cylindrical beakers with a mould-blown pattern of ribs (Fig. 2.3, colourless; others: pale blue);
  - a goblet with mould-blown pattern of ribs and applied frill in opaque dark blue glass (Fig. 2.4, light yellow);
  - a goblet with a mould-blown pattern of ribs and applied spiralling blue trails (Fig. 2.5, colourless with yellow tinge);
- a goblet with badly preserved enamelled or painted decoration, perhaps gilded (Fig. 2.6, green);
- a cup of a goblet with a mould-blown pattern of diagonal ribs (Fig. 2.7, colourless);
- various fragments of pushed-in bases of goblets, free-blown or with a mould-blown pattern of ribs (Fig. 2.8, colourless; other: colourless, colourless with yellow tinge, yellow);
- a beaker or cup of a goblet with opaque white diagonal trails applied to the surface (Fig. 2.9, colourless with blue tinge);
- a beaker or bowl with tubular rim folded outside and mould-blown pattern of vertical ribs (Fig. 2.10, colourless);
- bowls or plates with rounded or turned-over splayed rim (Fig. 3.11–12, colourless; Fig. 3.13, green; other: light green);
- a bowl or plate with rim rounded on inside (Fig. 3.14, opaque white);
- a small jar with truncated-conical neck (Fig. 3.15, yellow);
- bottles with cut rim underlined by an applied trail (Fig. 3.16, colourless; other: grey), with polished splayed rim (Fig. 3.17, blue green), with deeply kicked base (Fig. 3.18, colourless; others: light green, light blue, colourless with yellow tinge);
• a vessel probably with two handles, mould-blown pattern of vertical ribs on the body, applied trail at the base of the cylindrical neck (FIG. 3.19, light yellow).

Sixteenth-century contexts

• beakers or small bottles with pricked base, always made with light green glass (FIG. 4.20);
• pushed-in bases of goblets, with tubular base ring (FIG. 4.21, colourless with green tinge), and mould-blown pattern of ribs (FIG. 4.22, green);
• a wide variety of wine glass stems (FIGS. 4.23, 25, colourless; FIGS. 4.24, 26, dark green);
• a beaker or cup of a wine glass with rounded rim (FIG. 4.27, yellow);
• beakers or bowls with the rim folded on the outside (FIG. 4.28, olive green), or with applied horizontal trail (FIG. 4.29, dark yellow);
• bottles with kicked base (FIG. 4.30, light green; others: colourless with yellow green tinge, light green, olive green), with rim underlined by an applied trail (FIG. 4.31, colourless with yellow tinge; others: blue green; FIG. 4.32, dark green), with pushed-in base and tubular base ring (FIG. 4.33, olive green; others: light green);
• urinals (FIG. 4.34, green; others: colourless or colourless with green tinge; FIG. 4.35, green);

the diagnostic function of the green objects is uncertain, because the colour can make it difficult to observe the urine.

Seventeenth/18th-century contexts

• cylindrical beakers or cups of wine glass (FIG. 5.36, colourless; others: colourless with a green or blue tinge);
• cylindrical beakers or small bottles (FIG. 5.37, colourless; others: colourless with a yellow tinge, light green, green, olive green);
• a cylindrical beaker decorated with pincer-work (FIG. 5.38, colourless);
• various bases of goblets (FIG. 5.39, pushed-in, colourless; FIG. 5.40, light green; others: colourless; FIG. 5.41, colourless);
• a wide variety of wine glass stems (FIGS. 5.42–3, colourless; FIG. 5.44, olive-green; FIG. 5.45, colourless; FIG. 5.46, colourless with a green tinge); no. 46 is composed of a moulded hollow knop, decorated with two lion masks;
• bowls with turned-over splayed rim, plain (FIG. 5.47–9, olive green; others: colourless, colourless with a green tinge, light green) or with mould-blown pattern of ribs (FIG. 5.50, green; others: colourless);
• the pear-shaped neck of a bottle with globular body (FIG. 6.51, colourless with a yellow tinge);
• bottles with cut rim, underlined by an applied trail, and long cylindrical neck (FIG. 6.52, light blue; other: colourless);
• bottles with splayed rim, plain (FIG. 6.53, yellow) or with a mould-blown pattern of vertical ribs (FIG. 6.54, colourless with green tinge);
• bottles with pricked base, plain (FIG. 6.55, with globular body, light yellow; others: colourless, colourless with blue green or green tinge, light green, olive green; FIG. 6.57, olive green; other: colourless), or with mould-blown pattern of ribs (FIG. 6.56, light yellow; others: colourless, light green, olive green);
• bottles with pushed-in base and tubular base ring (FIG. 6.58, colourless; others: colourless with green tinge, light green, olive green);
• square bottles, always made with dark green glass (FIG. 6.59);
• a small bottle or jar with splayed rim and cylindrical body (FIG. 6.60, light yellow).

1 When it was too late to modify text and figures, I received, from the director of the excavation, the information that the level where FIG. 4.32 was found is now dated to the 17th/18th century.
bottles with kicked base (Fig. 3.18), and the decoration with opaque white diagonal trails applied on the surface (Fig. 2.9). All of these types are known from other Portuguese sites dated from the 16th century onwards, and found at Sintra (Ferreira 2003), Coimbra (Ferreira 1993), Lisbon (Ferreira 1997) and Tomar (Ferreira 1994).

However, the decoration with blue trails, appearing here on two goblets (Fig. 2.4–5), has never been described before in Portugal, as well as the painted (gilded?) goblet (Fig. 2.6). The production of colourless cups, goblets and bottles, with blue applied decoration, is known in southern France, from the end of the 13th century to the very beginning of the 16th century (see for example Foyle 1985, 46–52), and in Italy, at the Monte Lecco factory, between the end of the 14th and the beginning of the 15th century (Fossati and Mannoni 1975, 62). The blue frill in particular seems to bear some relation to bottles and goblets from the 13th to the 16th century in Italy. Whistlehouse (1981, 168–9) reported a group of objects coming from central Italy and Sicily. We can now add more finds from northern Italy: Liguria (a goblet in the Museo di Villa, Savona, dated to the mid 13th–15th century – Ventura 2001, 420, pl. 187 no. 1471, and a bottle from Genoa, dated to the beginning of the 15th century – Andrews 1977, 169, no 19, pl. xxxii); Piedmont (two bottles from Varallo, late 16th century – Pettenati 1996, 414–15, figs 17, 18 – and a goblet in the Museo Civico di Arte Antica, Turin, dated to the end of the 15th/16th centuries – Pettenati et al. 1987, 414, no. 5, fig. 8); Friuli (two bottles dated to the 13th/14th centuries – Testori 1992, no. 14, no. 16, pl. 9).

The different types of bowls or plates (Fig. 3.11–15) are already known in Portugal (e.g. at Tomar, dating to the 17th/beginning of the 18th century – Ferreira 1994, 122, no. 15, 125, no. 43). Particularly no. 15, as well as the vessel in Fig. 3.19, may be compared with unpublished objects from Coimbra, dating from the 16th century onwards (M. Ferreira pers. comm.).

The more recent contexts offer a similar situation, showing a typical complex of glasses from the 16th to 17/18th century, which is well-known in Portugal and Europe: wine glasses featuring various types of stems reflecting the Venetian style; globular and square bottles; and cups (Ferreira 1989, 1993; 1994; 1997; 2003). Whereas the stem with lion masks (Fig. 5.46), very common in façon de Vénice production, was unknown in Portugal previously, it is worth noting the presence of some glass that could belong to Portuguese production, such as the cabaça (Fig. 6.51), a bottle with pear-shaped neck and globular body deriving from the Islamic tradition and still produced in the Real Fábrica de Vidros in Coimbra during the 18th century (Ferreira 2000, pl. i, fig. 3; Custódio 2002, 27–8, figs 5, 6). The beaker with pincer-work (Fig. 5.38) and the bowl with mould-blown decoration (Fig. 5.50) also find their best comparison at Lisbon and Coimbra (M. Ferreira pers. comm.).

**Discussion**

Most of the glass objects from Rua da Judariia may be compared with finds from other Portuguese sites. However, the presence of new specimens makes this assemblage particularly interesting.

The 15th-century contexts yielded a group of glasses that are most typical of European production of this period, such as the cylindrical beaker with mould-blown decoration (Fig. 2.3), the goblets with pushed-in base (Fig. 2.4–6), the

**Final Remarks**

The glass assemblage from Rua da Judariia represents a variety of objects that span at least four centuries of glassmaking.
The group of glasses attributed to 15th-century contexts allows us to predate the presence in Portugal of types hitherto known from 16th-century sites in Lisbon, Coimbra, Sintra and Tomar. The assemblage as a whole shows either the early importation of objects from abroad (probably Italy) or the local reproduction of exotic models. Some objects, analysed from a formal point of view, may indicate local production. Unfortunately, the lack of archaeological data referring to glass factories prior to the 18th century biases our knowledge of Portuguese glass production before the creation of the Royal Factories at Coimbra and Marinha Grande (Custódio 2002, 43–57).

Finally, it is worth noting that the use of glass vessels in Almada is related to the presence of social classes such as merchants, jewellers, nobles etc. This also corroborates other archaeological and historical data (Barros 2000, 36–37).

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INVENTORY OF FINDS

Key: SL (silos) = pit; SD (sondagem) = sondages; c. (camada) = layer

Fifteenth-century contexts
1 cat. no. 15; SL 4, c. 1
2 cat. no. 158; SD 7/2, c. 3
3 cat. no. 16; SL 4, c. 1
4 MAH 2708 RJ 323, cat. no. 99; SD 8/2 caixa de esgoto
5 MAH 2820 RJ 324, MAH 9415 RJ 1343; SD 8/2 caixa de esgoto
6 MAH 9324 RJ 1256; SL 8, c. 3
7 cat. no. 176; SD 7/2, c. 3
8 cat. no. 77; SD 6/4, c. 4
9 MAH 9416 RJ 1344; SD 1, c. 5 and SD 10 (restored from 5 fragments)
10 cat. no. 139; SD 6/2, c. 5
11 cat. no. 441; SD 1, c. 5
12 cat. no. 51; SL 22
13 cat. no. 252, SD 1, c. 5 and SD 5, c. 3 (restored from 5 fragments)
14 cat. no. 171; SD 7/2, c. 3
15 cat. no. 433; SD 1, c. 5
16 cat. no. 395; SD 1, c. 5
17 cat. no. 410; SD 1, c. 5
18 cat. no. 52; SL 22
19 MAH 9329 RJ 1261; SD 1 c. 5 and SD 5 c. 3 (restored from many fragments)

Sixteenth-century contexts
20 cat. no. 331; SD 5, c. 5
21 MAH 9432 RJ 1352, cat. 265; SD 5, c. 5 and SD 10 (restored from 3 fragments)
22 cat. no. 259; SD 4, c. 6 and SD 5 c. 3 (restored from 2 fragments)
23 cat. no. 133; SD 6/2, c. 3
24 cat. no. 377; SD 4, c. 5
25 cat. no. 417; SD 4, c. 5
26 cat. no. 382; SD 4, c. 5
27 cat. no. 431; SD 4, c. 5
28 cat. no. 440; SD 4, c. 6
29 cat. no. 439; SD 4, c. 5
30 cat. no. 372; SD 4, c. 5
31 cat. no. 396; SD 4, c. 4
32 cat. no. 91; SD 2, c. 2
33 cat. no. 313; SD 4, c. 5
34 cat. no. 251; SD 4, c. 5
35 cat. no. 373; SD 4, c. 5

Seventeenth/18th-century contexts
36 cat. no. 412; SD 4 c. 3
37 cat. no. 335; SD 10
38 MAH 9429 RJ 1350, cat. no. 415; SD 4, c. 4
39 cat. no. 260; SD 1, c. 4
40 cat. no. 262; SD 5, c. 4
41 cat. no. 109; SD 8/2, c. 4
42 cat. no. 416; SD 10
43 cat. no. 381; SD 5, c. 4
44 cat. no. 380; SD 5, c. 3
45 cat. no. 378; SD 4, c. 3
46 cat. no. 376; SD 4, c. 4
47 cat. no. 254; SD 5, c. 3
48 cat. no. 258; SD 5, c. 3 and SD 10 (2 fragments)
49 cat. no. 266; SD 5, c. 3 and SD 10 (restored from 2 fragments)
50 cat. no. 250; SD 4, c. 4, SD 5, c. 3 and SD 10 (restored from many fragments)
51 MAH 2706 RJ 322; SD 5, c. 3
52 MAH 9433 RJ 1354, cat. no. 393; SD 5, c. 3
53 cat. no. 408; SD 10
54 cat. no. 409; SD 4, c. 3
55 MAH 9328 RJ 1260, cat. no. 392; SD 5, c. 3
56 cat. no. 364; SD 1, c. 4
57 cat. no. 371; SD 4, c. 3
58 cat. no. 312; SD 5, c. 4
59 cat. no. 108; SD 8/2, c. 3
60 cat. no. 435; SD 5, c. 4

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