



Museum floor plan

Rooms 15 -16 -17 plan



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## Fragility over time. Glass in antiquity

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### The manufacture of glass

Glass in antiquity had three basic components: a former (silicon dioxide), a flux (sodium and potassium), and a stabilizer (calcium and magnesium oxide). Mixing these components with other ingredients resulted in different products in terms of colour, hardness and plasticity. Primary production of raw glass was already present in some parts of the Near East and Egypt, and in the secondary stage, glass 'ingots' and blocks were exported to the West.

### The mosaic of Belerofonte

The original floor mosaic was found in what was a Roman villa in Bell-lloc (Girona) and dates back to the end of the 3rd century BCE. It represents the myth of Bellerophon, who slayed the Chimera while riding on the winged Pegasus.

### Glass production techniques

The earliest method of glass-making was a technique of stretching and modelling molten glass on a metal rod to make beads for necklaces. This evolved into several different techniques. The core-modelling method involved trailing glass over a shaped sand and clay core fashioned on the end of a metal rod. The pieces were then decorated with coloured glass threads and could have decorative handles, feet and neck. In the lost-wax casting technique, a wax or wax-coated model of the object to be produced was created. The model was then enveloped in clay or plaster and baked, so that the wax melted, leaving a mould into which molten glass could be poured. The glass was then decorated with ribbing (cut grooves) after its removal from the mould. Glassblowing was another technique, and consisted of blowing the melted glass into the air with a pipe until it formed a bubble, and then shaping it. Finally, mould-blowing was used for pieces



with a polygonal or plastic shape and relief decoration. This last technique involved putting blown glass into a mould, allowing pieces to be replicated.

### **The finished piece**

Using pincers and tweezers, the hot glass was worked and twisted into elaborate ornamental shapes, such as spirals, which were used to decorate the neck or body of the piece or to wind around it. The body and the handles were decorated with glass drops and reliefs, or by engraving and relief-cutting the glass with geometric patterns.

### **Glass, a luxury item, and the popularisation of blown glass**

In the 7th century BCE, large-scale glass production began in Mesopotamia and spread throughout the Mediterranean. By the 1st century BCE, the technique of glassblowing meant glass could be produced faster and more cheaply. Once it was in the hands of the Romans, it was traded and reached the whole world.

### **‘House of the Centennial’ room**

This room is decorated in the style of a Roman house. The paintings and fountain figure are reproductions of those in the ‘House of the Centennial’ in Pompeii.

### **Faience**

Faience is a fine tin-glazed earthen-ware which is similar to glass when heated. It has a bright blue or green lustre, and was highly prized for making all types of objects.



## Pendants

In ancient times pendants with decorative motifs were highly valued. It was thought they had magical and religious qualities and protected those who carried them from evil.

## Glass tableware: small containers, dishes and pots

Small containers or vials (copied from the Greeks) were made until the 1st century AD, and were used to store substances such as scented oils that needed to be in something watertight, odourless and opaque. They were part of daily life, and used at the table, in the kitchen, for storing medicines and cosmetics, and in funeral proceedings. At the beginning of the Higher Empire, craftsmen copied *terra sigillata* (fine pottery with a polished red glazing) and metal tableware. Mosaic and opaque glass became fashionable, and glass bowls decorated with ribbing were used at the table for sauces etc. Using glass at mealtimes became popular in the 2nd century AD. Glass tableware was inexpensive, easy to clean and highly valued. Pots were normally used in cooking, or in cremation rituals.

## How models evolved

In the 2nd century, the glass industry in the Roman Empire flourished and expanded. Blown glass had a greater variety of colours, shapes, decorative patterns and became ever more ornamental. The Roman Empire divided at the end of the 4th century after the Barbarian invasions (5th century AD) ended unity in Rome. In the 5th century AD, the production of functional pieces of glass declined and it began to be used in jewellery-making as a substitute for gemstones. Production in the West levelled out and then began to decline as the range of pieces was reduced and reorganized, and the quality fell.

In the East, Roman techniques continued to be used, but they were less refined and used large shapes that followed fashion trends in other countries. Mould-blowing allowed pieces to be replicated and decorated in large quantities, therefore lowering the quality, examples are containers for liquids and powders. The Byzantine Empire continued its usual glass production, and luxurious Syrian and pre-Islamic glass was still being made until the expansion of the Muslim world (7th century AD).

## Mosaic with geometric and floral patterns

The original floor mosaic in the room is from the first half of the 4th century AD. It was found in the Roman villa of Cal Ros de les Cabres (El Masnou, El Maresme). Marble tesserae (small, individual tiles) were used in the floral and geometric patterns.



Swallow's Ointment jar





## Islamic glass

In the 7th century, Islamic glass followed in the same fashion as what had gone before, but with a tendency towards functionality and creating new shapes. At the height of the Islamic Golden Age (13th and 14th centuries), vases were produced in the shape of large bottles, lamps or glasses, with enamelled and gilded decoration and epigraphs. Trading between merchants and the mobility of glass craftsmen resulted in a rather homogeneous style in the Islamic world. They used the technique of glassblowing, and although most glass was purely functional, some more elaborate pieces were decorated with thread trailing, reliefs or engraving.