

The history of creating glass can be traced back to 3500 BCE in Mesopotamia. The term *glass* developed in the late Roman Empire. From the 19th century, various types of fancy glass started to become significant branches of the decorative arts. Several of the most common techniques for producing glass art today include: blowing, casting, kiln-forming, lampworking, and cold-working.

Objects made out of glass include not only traditional objects such as vessels (bowls, vases, bottles, and other containers), paperweights, marbles, beads, but an endless range of sculptures, objects, installations, home accessories, and furniture as well.

Kiln-formed glass is a term used to describe glass that has been manipulated, shaped, decorated or formed in a kiln at a range of high temperatures from 593°C to 816 °C. Included are a variety of specific techniques such as fusing, slumping, combing, fire polishing and laminating glass. A couple of centigrade differentiation in temperature can make a difference between success and disaster. If the glass gets too hot, like mercury and silver, it draws into itself and creates a bubble. Hotter again, and it will run like water.

Cold work includes traditional stained glass work as well as other methods of shaping glass at room temperature. Glass can also be cut with a diamond saw, copper, diamond or stone wheels which may or may not be embedded with abrasives, and polished to give gleaming facets; sometimes the design / art is etched into glass via the use of acid or abrasive substances.

Glass engraving is a form of decorative glasswork that involves engraving a glass surface or object.

Lampworking is a type of glasswork that uses a gas fuelled torch to melt rods and tubes of clear and coloured glass. Once in a molten state, the glass is formed by blowing and shaping with tools and hand movements.

Lampworking differs from glassblowing in that glassblowing uses a blowpipe to inflate a glass blob known as a gob or gather, thereby inflating it by blowing air into the blowpipe, whereas lampworking manipulates glass either by the use of tools, gravity, or by blowing directly into the end of a glass tube. Lampworking is used to create artwork, including figurines, trinkets, curios, beads and much more. It is also used to create scientific instruments as well as glass models of animal and botanical models.

Glassblowing is a glass forming technique that involves inflating the molten glass into a bubble, with the aid of the blowpipe, or blow tube. As a novel glass forming technique created in the middle of the last century BCE, glassblowing exploited a working property of glass which was previously unknown to the glassworkers: inflation, which refers to the expansion of a molten blob of glass by introducing a small amount of air to it. This property is based on the liquid structure of glass where molten glass is viscous enough to be blown and gradually hardens as it loses heat. During blowing, thinner layers of glass cool faster than thicker ones and become more viscous than the thicker layers. This allows production of blown glass with uniform thickness.

kiln-worked

blown

casting

Glass casting is the process in which glass objects are cast by directing molten glass into a mould where it solidifies. The technique has been used since the Egyptian period. Modern cast glass is formed by a variety of processes such as kiln casting, or casting into sand, graphite or metal moulds.

engraved

lampworked