

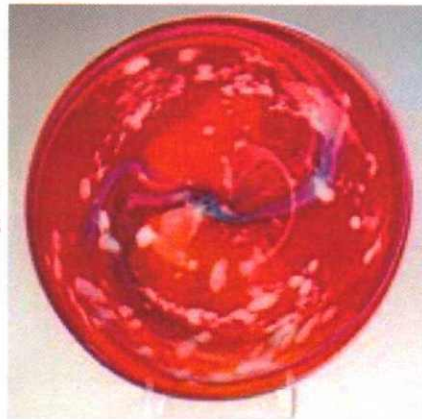
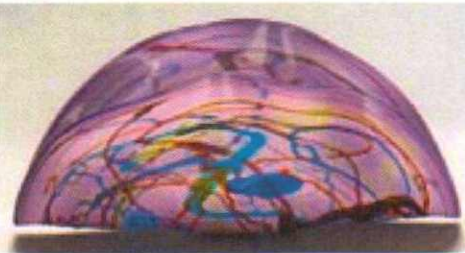
Wayne Helfand

Glass is the finest piece of art that you can add to your home or office. Each piece, hand blown, each piece unique. Achieve that design edge that only a unique piece of glass art can fulfill. Glassblowing is the process of forming glass into useful shapes while the glass is in a molten, semi-liquid state.

Glassblowing is an art that requires lengthy training & intense concentration. In addition to glassblowing as an art, many individuals pursue glassblowing as a hobby. In fact, it is one of the fastest growing hobbies in North America.

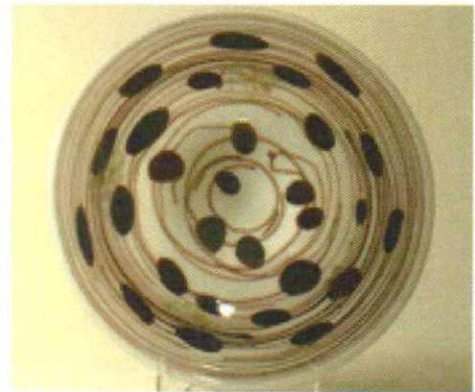


Glassblowing involves three furnaces. The first, which contains a crucible of molten glass, is simply referred to as "the furnace." The second is called the "Glory Hole" & is used to reheat a piece in between steps of working with it. The final furnace is called the "lehr" or "annealer" & is used to slowly cool the glass, over a period of a few hours to a few days, depending on the size of the pieces. This keeps the glass from cracking due to thermal stress. Historically, all three furnaces were contained in one, with a set of progressively cooler chambers for each of the three purposes. Many glassblowing studios in Mexico & South America still employ this method.



The transformation of raw materials into glass takes place around 2400 degrees; the glass emits enough heat to appear almost white hot. The glass is then left to "fine out" (allowing the bubbles to rise out of the mass) & then the working temperature is reduced in the furnace to around 2000 degrees. At this

stage, the glass appears to be a bright orange color.



Though most glassblowing is done between 1600 - 1900 degrees, "Soda-lime" glass remains somewhat plastic & workable as low as 1350 degrees. Annealing is usually done between 800 & 900 degrees.

