# A Brief History of Glass

# The Beginnings

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Archeological findings indicate the Stone Age man used naturally formed glass in his everyday activities.

Pliny, the ancient Roman historian, recorded that man became aware of produced glass probably about 5000 BC in Syria.



# 3500 BC



Glass beads seem to be the first objects made from glass around 3500 BC in Egypt and Mesopotamia.

# 1500 BC - Egypt

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About this time, Egyptian glassmakers made hollow glass forms by dipping a core mold made from compacted sand into molten glass which coated the mold. The outside was smoothed out while the glass was still molten. The sand core was removed after the glass had cooled.

# 25 BC - Syria

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- The process of glass blowing involves placing glob of molten glass on the end of a metal tube through which the glass maker would blow and produce a hollow form with his breath was created.
- The Romans took the process farther by blowing the glass into molds.



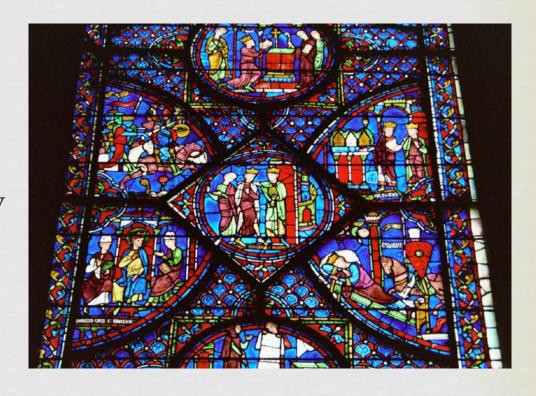




# 1100 AD - Gothic Art

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- Glass sheets became more available through the process of blowing glass forms and then flattening them.
- These pieces of flat glass were limited in size so they were joined together using lead strips. Glass windows though were very expensive and you would most likely find them in palaces and churches.



## 1271 AD - Venice

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○ Venice, as major trading center at this time period, and gathered many of the skills, techniques and materials about glass making. It became a major producer of glass, but because of the frequency of fires from the numerous glass furnaces, the government ordered the glass makers to the island of Murano.

Murano is still famous for its quality glass production today.



# 1688 - France

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France discovers the process of pouring molten glass on to special tables to produce a uniform thin piece of glass which after polishing made for a better quality plate (flat) glass.

They also coated some of the glass with a low temperature metal and produced mirrors.





# 1875

**C**3

- Michael Owens invents an automatic bottle blowing machines.
- ∝ E.D.L. Libby revolutionizes the mass production of glass containers.
- Decorative art glass became popular about this time with famous names like Tiffany and Stueben producing creative and decorative tableware and sculptures.



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cars today, is introduced.
By sandwiching a clear
plastic between two layers
of glass, the glass might
crack but will not shatter
making glass a lot safer.



## **TODAY**

#### 03

Computer control, special coatings, refractory glass, microelectronics, and creative innovations promise all kinds of potential for glass and the future.