

# IMPRESSION MOLDING

Early scleral lenses were made from impression molds of the eye. An alginate molding compound is prepared and used to make an impression of the eye using a special scleral shell. From that a mold was made out of plaster-of-Paris, which formed the basis of the shape of the lens.



# IMPRESSION MOLDING

Lenses were then molded from a thermosetting material.



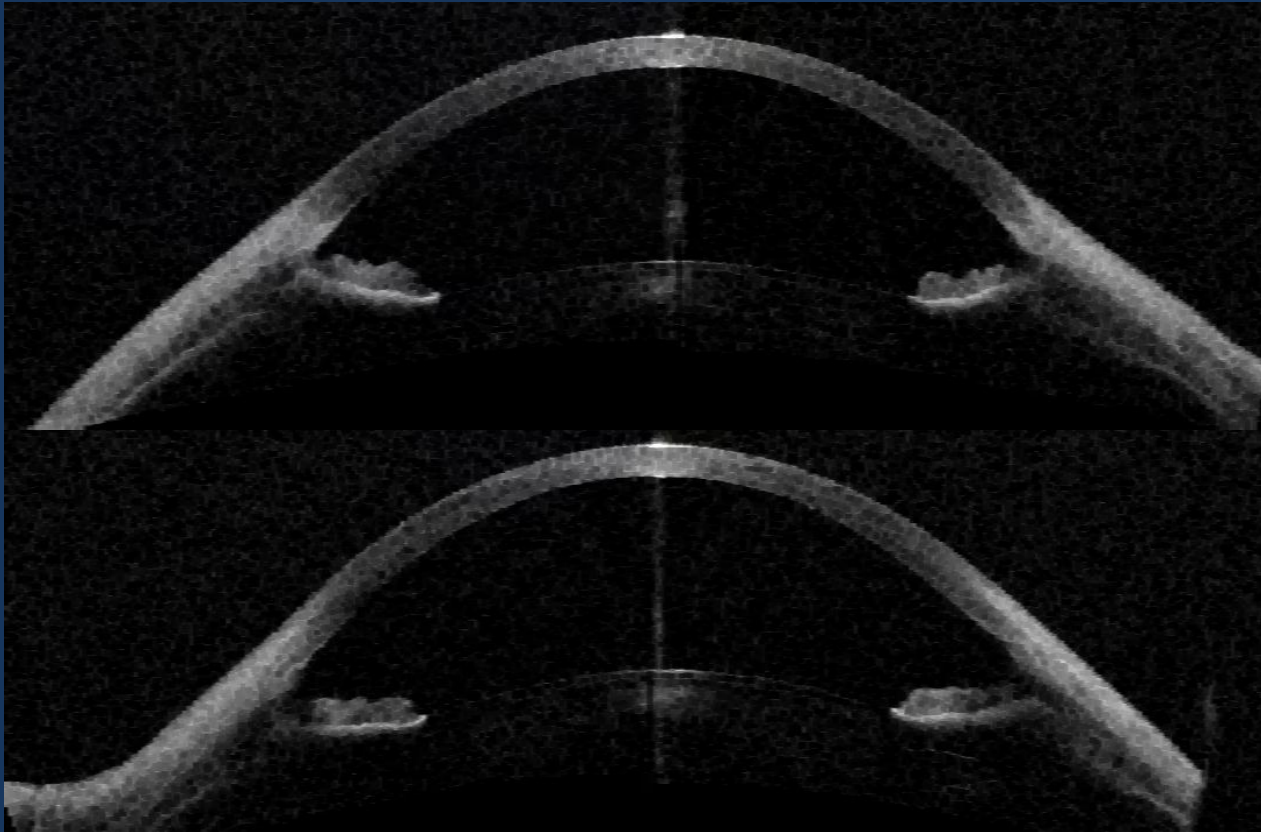
# MODERN LATHE CUT LENSES

The introduction of gas-permeable non-thermosetting materials eliminated the molding process. Lenses now had to be machined out of solids and sold in pre-made kit form. Early designs were rotationally symmetrical.



## MODERN IMAGING

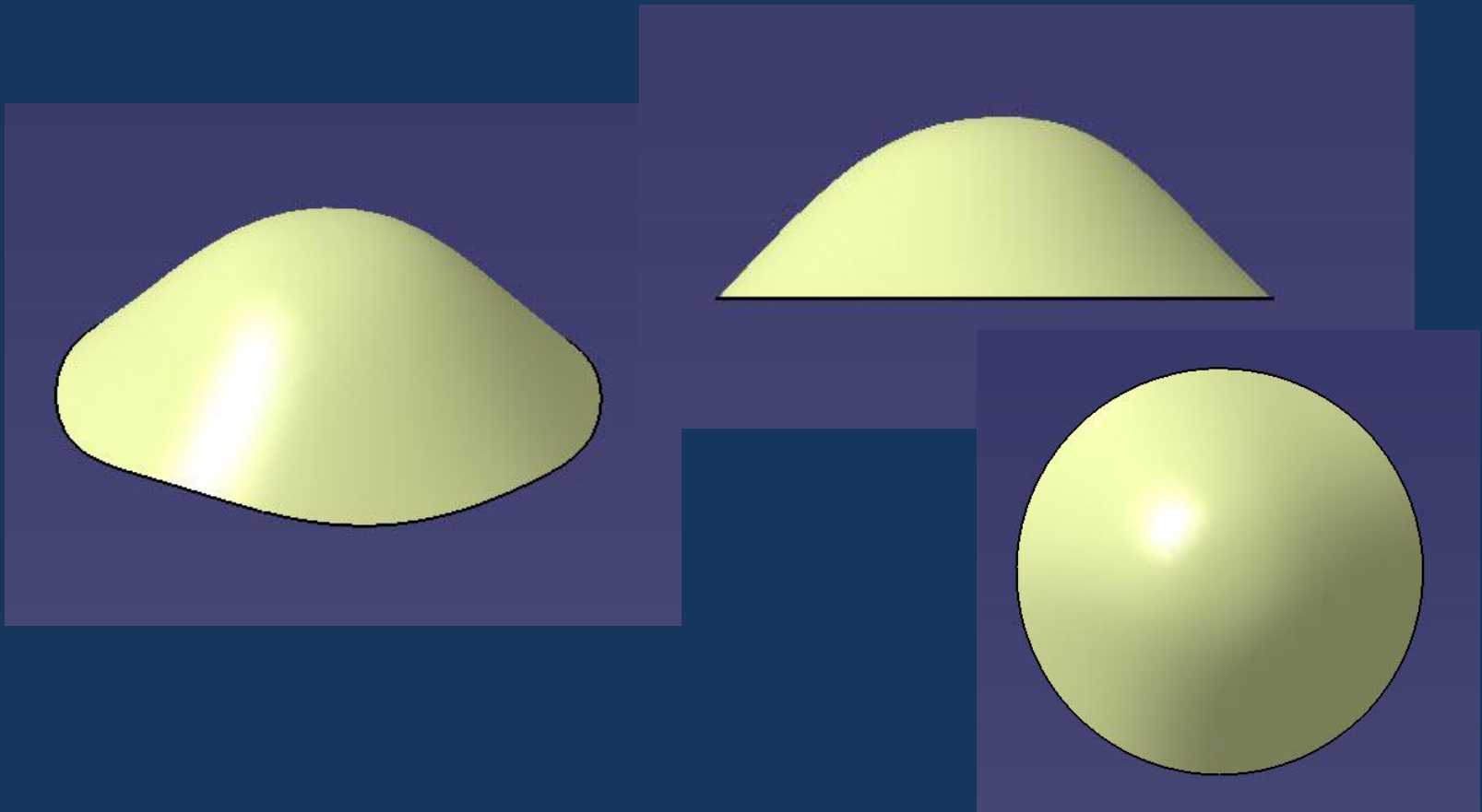
The availability of modern imaging technology permits the capture and recording of digital images of the shape of the eye. This information can now be manipulated in the digital domain to create lens designs that conform to the actual shape of the eye. Modern CNC (computer numerically controlled) lathes make complex shapes possible.





## 3D COMPUTER AIDED DESIGN

Digital information can now be rendered into a 3 D workspace using sophisticated computer aided design systems. The plaster-of-paris model of an eye once created from an alginate mold has become a virtual mold. Lenses can now be made from a digital mold of the eye.



## COMPLEX NON-ROTATIONAL DESIGNS

As with those eye molds of a bygone era, modern technology has once again made it possible to create asymmetrically shaped lenses which follow the eyes' natural shape.

