

VISION: THE PRECIOUS TREASURE

Exhibit Guide

He that is stricken
blind cannot forget
The precious treasure of his
eyesight lost.

Romeo and Juliet, I.1.238

Every second, the human eye sends billions of bits of information to the brain. More complex than the most advanced computer, the human visual system tells us in the blink of an eye about the shape, size, movement, and color of our surroundings: about the play of light and shadow on a wall, the pattern of a butterfly's wing, the twinkling of a distant star.

How can we protect this most precious of possessions, our sense of sight? And, if it fails, how can we cope with vision loss? This exhibition will begin to answer some of these questions:

- o How do my eyes work?
- o What happens in an eye examination?
- o What can I do to protect my eyes from injury?
- o What can be done to detect and treat blinding eye disease?
- o How can those with vision loss continue to lead full lives?

The exhibition will be installed somewhat differently in each museum. Basically, it consists of four islands, a reading table, and an introductory panel with eye tests on its reverse side. Each island incorporates a two-sided photomural measuring 7'6" x 6'8", plus four to six activities. Here is what you are likely to encounter as you visit the exhibition.

Introduction

A reproduction of a beautiful 15th-century painting of St. Lucy holding two gem-like eyes introduces the concept that eyesight is a precious resource. To one side, you see an island of exhibits that invite you to marvel at and become familiar with your own eyes.

The Visual System/The Inner Eye

A large optical illusion and a model of the human visual system make the point that visual perception is a complex process that involves the brain as well as the eyes. For comparison, the eye-brain systems of several other animals are displayed as well.

The visitor can look at his pupil dilating and contracting, examine the blood corpuscles pulsing through his eye, and see whether he has any floaters. A device shows that, at the periphery, movement is detected more readily than stationary images, with an electron micrograph of rods and cones to help explain why. On this side of the island is a large photograph of the inner eye.

Eye Care

This island gives visitors a chance to look through a slit lamp (one of the instruments eye doctors use to examine the cornea and lens) and take an automated eye screening test. Nearby, in back of the introductory panel, are several other eye tests -- for distance visual acuity, near vision, color discrimination, and depth perception. Eye care professionals are depicted at work, and their areas of expertise are defined. (The visitor is reminded in the copy that these tests are not diagnostic.)

A display of glasses and contact lenses augments a graphic presentation about errors of refraction (nearsightedness, farsightedness, and astigmatism). Safety masks and glasses make the point that at home, work, and play it is important to protect your eyes. A large photograph of Kareem Abdul-Jabbar with his custom-made safety goggles reinforces this point for younger visitors.

The Imperfect Eye

The next island is mainly about the three most common causes of blindness: glaucoma, cataract, and retinal disease. The presentation focuses on aging because in this country most new cases of blindness occur in older people. Because the aging population is growing, this is of increasing concern.

Visitors can try on specially treated goggles that simulate vision of those with glaucoma, cataract, and retinal disease. The importance of early detection is emphasized in the copy. The cataract unit also includes a display of intraocular lenses. A videotape by an artist with diabetic retinopathy conveys the experience of laser therapy in the retinal disease unit.

Low Vision

The last island continues the presentation on aids for the blind and partially sighted. Visitors can sit down to try to thread a needle while looking through a plexiglas panel treated to simulate the vision of an undiseased 70-year-old eye. Contrasting colors and strong lighting help. Nearby is a display of magnifying devices (most available without prescription,) that may be useful to those with low vision. The point is made here that most legally blind people actually have some usable vision and may be helped by some very simple aids.

The other side of the island shows more "high tech" aids, including a magnifying closed-circuit television for reading and writing; a talking paper money identifier; and a talking clock, calculator, and scale.

Tabloid

A simple four-page tabloid aimed mainly at younger visitors and their families will be available for distribution by participating museums.