

## Louis Braille and Helen Keller: Two Bright Lights

During the 19th and 20th centuries, two people forever changed the world for blind people. Through their creativity and example, Frenchman Louis Braille and American Helen Keller made a collective impact beyond their lifetimes.

Born in Coupvray, France, on January 4, 1809, Louis Braille was the second son of a harness-maker. He later developed the raised-dot reading system that blind people use to this day.

When he was 3 years old, Louis tried to make his own harness from a piece of discarded leather. When his cutting tool slipped, Louis injured his left eye. An infection developed, and soon he was totally blind.

At the Institute for Blind Youth in Paris, Louis learned to read using embossing, a method in which readers used their fingers to trace large letters with raised outlines. But the size of the letters made the embossed books so large and expensive that only a few were available. Louis dedicated himself to the search for a better reading method.

Drawing from another alphabet code—a system of dots and dashes developed by a retired military man—Louis created a system of tactile letters with different combinations of holes punched into pieces of scrap paper. Its basis was the unit known as the braille cell, with spaces for up to six dots—two across and three down. By using different numbers of dots in different arrangements in each cell, Louis formed 63 dot combinations to represent letters, numerals, even musical and scientific symbols. It was a practical code, too, since the dots took up roughly the same space as print.

By 1824, at age 15, Louis had revolutionized touch reading, ensuring that all literature could someday be read by blind people. Although widespread skepticism obscured Louis' achievement during his lifetime, he was finally honored 100 years after his death from tuberculosis. In 1952, he was reburied in the Pantheon in Paris, resting place of the national heroes of France.

Helen Keller is remembered as an American hero, having refused to let blindness and deafness stop her from living a fulfilling life with grace and poise. Her example has inspired people worldwide.

Born on June 27, 1880, on a farm near Tuscumbia, Alabama, Helen was a healthy baby until 19 months of age, when she was stricken with what is believed to have been scarlet fever, then incurable. She became so weak it was feared she would die. Once the fever broke, she could no longer see or hear. Soon, she stopped speaking.

Helen learned to communicate through gestures: A nod meant yes and a pull meant come. But she wanted to express much more and often acted out her frustration in rage.

Fortunately, Helen's parents learned about a school with teachers who had once taught a deaf and blind girl. One of the teachers, Annie Sullivan, arranged to have Helen live with her in a little house behind the Keller residence. At first, Helen resisted Annie's attempts at instilling self-control, but eventually she stopped fighting. Annie was able to spell words into Helen's hands. Although Helen thought Annie was just playing a game, it drew her attention and sparked her curiosity.

Soon, a breakthrough occurred. In an old pump house, Annie put Helen's hand under the stream and spelled the word "water," helping Helen to understand that everything had a name. During the following year, Helen's comprehension skyrocketed. She learned the alphabet and how to read using cards that featured words with raised outlines. She was also able to communicate using her hands, but they weren't fast enough to keep up with the myriad of thoughts bursting in her mind. So Annie contacted another teacher, Sarah Fuller, who taught Helen to speak by approximating the vibrations she felt when she touched Sarah's throat.

The public learned about Helen's remarkable achievements through newspaper stories and radio programs. A ship was even named after her. When she was 12, she was invited to the White House to meet President Harrison. Through it all, she spent most of her time living a normal life, riding her horse, walking her dogs and even learning to swim. Her desire to learn never ceased.

In 1900 Helen entered college after convincing the president that she could complete the course work. College was a challenge. Since Helen could not refer to notes, she had to remember everything and provide correct answers on tests the first time. Despite these obstacles, Helen graduated with honors in 1904.

After college, she wrote and lectured to further people's understanding of those who were blind or deaf. When World War II broke out, Helen began visiting hospitals at the request of President Roosevelt to comfort soldiers who had been blinded or otherwise maimed.

She eventually retired to her home in Westport, Connecticut, where she devoted herself to reading, writing, visiting friends and enjoying life. On June 1, 1968, Helen died at the age of 87, leaving a brighter future for humanity.

Undaunted by incredible obstacles, both Louis and Helen lit the way for millions of blind people to come.

For more information, the following books are suggested:

#### Louis Braille

- Freedman, Russell. *Out of Darkness: The Story of Louis Braille*. New York: Clarion Books, 1997. Ages 9-12.
- Davidson, Margaret. *Louis Braille: The Boy Who Invented Books for the Blind*. New York: Scholastic Trade, 1991 (re-issue). Ages 9-12.
- O'Connor, Barbara. *The World at His Fingertips: A Story About Louis Braille*. Minneapolis: Carolrhoda Books, 1997. Ages 4-8.

#### Helen Keller

- Wilkie, Katherine E. *Helen Keller: From Tragedy to Triumph*. New York: Aladdin Paperbacks, 1988. Ages 9-12.
- Sullivan, George. *Helen Keller (In Their Own Words)*. New York: Scholastic Paperbacks, 2001. Ages 9-12.
- Lundell, Margo. *A Girl Named Helen Keller*. New York: Cartwheel Books, 1995. Ages 4-8.

Braille Institute is a private, nonprofit organization whose mission is to eliminate blindness and severe sight loss as a barrier to a fulfilling life.

**For more information, call 1-800-BRAILLE (272-4553)**

## Blindness—Myths and Realities

When sighted people encounter a person who is blind or visually impaired, they still may have the image in their minds of a blind person operating a newsstand or asking for a handout with a tin cup, as was common during the 1930s and '40s. Today, outdated stereotypes and misconceptions can be dismissed when the following myths and their opposing realities are understood:

**Myth:** All blind people are totally blind, seeing only darkness.

**Reality:** Most people who are legally blind have some residual vision. Legal blindness means that a person with normal vision can see the big "E" on a standard eye chart at 200 feet, whereas a person who is legally blind can only see it at 20 feet. A person with normal sight has a 180-degree field of vision, whereas if a person's eyesight can encompass only a field of 20 degrees or less, this is considered legal blindness. More than 75 percent of legally blind people can use their residual vision to perform many of life's daily tasks.

**Myth:** Sign language and braille are the same thing.

**Reality:** Sign language is a visual means of communication used by people who are deaf or hearing impaired. It utilizes a system of arm and hand gestures that stand for letters, words and phrases.

Braille is a coded system of tactile communication for people without sight. It is composed of more than 250 character and word signs created by arrangements of from one to six raised dots within a braille cell. Braille enables blind people to read by touch or write by creating the code on special paper with slate and stylus or a braillewriter.

Still another system, used to communicate with people who are both deaf and blind, is palm printing, in which the actual letters of the alphabet are traced on the palm of the recipient's hand to spell out words and sentences.

**Myth:** All blind people read braille.

**Reality:** Only about 10 percent of people who are blind read braille. And as people age, many of them are forced to stop reading braille because of the loss of sensation in their fingertips, a common effect of diabetes and other diseases.

About 75 percent of people who are legally blind can read printed material, using a combination of their own limited vision and visual aids that provide magnification and special lighting. Many can read print if it is enlarged.

**Myth:** Blind people are forced by law to carry white canes.

**Reality:** People who are blind or visually impaired are not required by law to carry white canes. Many choose to do so because with proper training a person can use a cane to move with confidence and safety through environments both familiar and unfamiliar.

A white cane also is a safety device—it serves as a warning to drivers and informs police, firefighters and other officials that the user is legally blind. It is illegal, however, for a person who is not legally blind to carry a white cane.

**Myth:** Expensive modifications in the workplace are required to accommodate a blind employee.

**Reality:** Many adaptations can be made at little or no cost. Often a minor accommodation, such as improved lighting or additional software, is all that is needed. For example, glare on her computer screen caused fatigue for a visually impaired employee. The solution was to purchase an anti-glare screen, which cost the employer only \$39.

**Myth:** People who are deprived of sight are compensated by increased acuteness in their other senses.

**Reality:** Being blind does not usually make the other senses more acute. With proper training, however, a blind person can learn to use the other senses more efficiently, or learn to achieve the same ends by different means.

**Myth:** The remaining sight of a person who is legally blind can be damaged further through normal use.

**Reality:** Eyes cannot be weakened or damaged by normal use. People should be encouraged to use their remaining sight.

**Myth:** People who have lost their sight need extra supervision.

**Reality:** People who are blind or visually impaired occasionally may need help, but sighted people should not be overprotective of them. Let them tell you when they need your help. This increases their degree of self-confidence and reinforces their capabilities, not their disability.

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