

Welcome to the Library Company of Philadelphia. “Common Touch: The Art of the Senses in the History of the Blind” starts in our main gallery to the left of the reception desk. The exhibition gallery is about 17 feet long x 32 feet wide. The exhibition flows in a clockwise direction, beginning on the wall to the left of the gallery entrance. In the gallery, you will find interactive original art works by Teresa Jaynes, meant to be handled (gently), along with historical materials displayed in closed cases. This booklet contains braille-printed copies of all the labels in the exhibition. A tactile map of the gallery space and an audio tour are also available at the front desk. A water fountain is accessible to the left of the entry to the main gallery. A restroom is available beyond the far end of the main gallery, to the left. We hope you enjoy “Common Touch.”

“Common Touch: The Art of the Senses in the History of the Blind”

Teresa Jaynes, Visual Culture Program Artist-in-Residence

“Common Touch: The Art of the Senses in the History of the Blind” is foremost a multisensory experience. Sight does not dominate here. The senses of touch, hearing, and smell all play a role.

At its heart, “Common Touch” is the story of an artisan, a mathematician, a composer, and a

surveyor. Drawing on their accomplishments, the artist developed “first person constructions” for each, infused with the geometric and abstract forms that were fundamental to the education of the blind in the 19th century. These forms were tools used to navigate and perceive the physical world—a radical approach years before the beginnings of modernism.

Framing the exhibition are self-expressions from blind individuals living in the 19th century. It opens with a student’s doodled “ME” on a page of raised-letter text, next to “Gift #1,” an embossed paper owl sculpture constructed by the artist using passages from blind authors. It closes with a photograph—a studio portrait of the Rev. and Mrs. Jacobson that challenges centuries-old notions about the blind. Through art and artifact, “Common Touch” examines transformations in our understanding of sight, while exploring the nature and limits of perception.

The artist designed the work to be handled. Please be gentle.

“Color, it should be remembered, is nature’s dress, and not nature’s self.”

—William Artman and Lansing V. Hall, “Beauties and Achievements of the Blind” (Rochester, N.Y., 1872).

“Gift #1” (2016). Embossed paper.

“Gift #1” refers to the use of taxidermied animals in teaching natural sciences at institutions like the Perkins School for the Blind. Meant to be touched, the owl contains the embossed words of blind authors writing in the 18th and 19th centuries. Their observations challenge many preconceptions about vision and blindness. Jaynes reproduced the texts in three raised-print systems: Boston Line, Moon, and Braille. The 19th-century development of these and many other varieties of “tangible typography” signify a radical evolution in societal attitudes toward the education of visually impaired individuals.

Adolph Bernhard Marx, “The Universal School of Music” (Louisville, Kentucky: American Printing House for the Blind, 1877).

A student has used a stylus to punch out a single word—“ME”—in the middle of a page of raised-letter text.

“Of all the senses, that of sight is the most liable to delusive impressions.”

—William Artman and Lansing V. Hall, “Beauties and Achievements of the Blind” (Rochester, N.Y., 1872).

“Gift #2” (2016). Felt and cherry.

“Gift #2” incorporates enlarged letterforms from

correspondence written by Jennie Partridge, an educated blind American woman living in the late 19th century. Handwriting creates a visceral connection between the reader and the writer, though the two may be separated by centuries. Jaynes felt this direct connection with Jennie Partridge when she first encountered her personal correspondence at the Library Company. The elaborate and labored letters still hold evidence of the fluctuating pressure of Jennie's pencil as she carefully shaped each character. This physicality of the artifact along with the abstract quality of the letterforms themselves served as the initial inspirations for "Gift #2."

In the closed case directly opposite "Gift #2":

1 Two pasteboard handwriting guides (19th century).
Michael Zinman Collection of Printing for the Blind.

American institutions taught a script referred to as "square-hand" because of the angular shape of the letters. Guide boards, like the two on display, aided the visually impaired writer to produce straight and evenly spaced script. A sheet of writing paper was placed over the board, and its horizontal grooves were felt through the paper. The furrows controlled the motion of the pencil.

2 Laura Bridgman, Letter written in square-hand (Boston, 1850). On loan from Michael Zinman.

Deaf and blind from age two, Laura Bridgman (1829–1889) began her education at the Perkins School for the Blind in Massachusetts in 1837. Bridgman gained fame for being the first deafblind American to learn to read, write, and communicate through tactile sign language. She lived most of her life at Perkins, where she eventually met and befriended Anne Sullivan, who would go on to educate Helen Keller. In this letter, Bridgman mourns the end of her formal education at Perkins in 1850, when her companion of five years, Sarah Wight, left for missionary work in Hawaii.

3 Pin point writing frame and pin blocks (ca. 1834). On loan from the New York Institute for Special Education.

Blind students were taught to write letterforms with pencil so that they might communicate with the sighted. To correspond with each other, however, they needed another method. The tool shown here enabled the blind to read their own writing. Paper was placed in the frame and small types, made with pin points, created impressed letters through the paper. The structure of this frame, and others like it, influenced the artist's design of the frame for "Gift #2."

4 Jennie Partridge, Two letters written in square-hand (Greenfield, Brooklyn, ca. 1870s). Michael Zinman Collection of Printing for the Blind.

The letters are signed by Jennie Partridge (1835–1905) and content suggests they were written in the 1870s. Research indicates that Jennie had been educated at the Perkins School, and lived a largely independent life, earning money by making fancywork. Two of the letters reference the gift of a piano from a generous benefactor. In one letter, she anticipates its arrival and in another, she writes that the piano has arrived. Her display of gratitude is effusive and endearing. She wrote, “I try to recall the music my dear, dear father so patiently read for me to learn, though he was unable to distinguish a single musical sound.” The sentiment suggests her father was deaf. Unfortunately, this has yet to be confirmed.

5 Facsimile of Plate III from Sébastien Guillié, “An Essay on the Instruction and Amusements of the Blind” (London, 1894 reprint of 1819 edition).

This illustration depicts two handwriting guides and a tool for teaching handwriting utilized at l’Institution Royale des Jeunes Aveugles de Paris, the school Louise Braille attended starting in 1819.

6 “Original Compositions by the Pupils, Letters,” in “The Students’ Magazine” (Philadelphia: Pennsylvania Institution for the Instruction of the Blind, February 7, 1838).

The Pennsylvania Institution for the Instruction of the Blind opened in 1832 and is still in operation today as

the Overbrook School for the Blind. The school produced some of the earliest raised-letter printing in America, including a student-run magazine that served both as a fundraising tool, and as a medium for original compositions that demonstrated the students' education, talents, and personalities. In this published letter signed "Leonora," the writer refers to the school's printing activities and asks the recipient to send some books to be reproduced in raised letter. The school was co-educational from the beginning, perhaps explaining why "Leonora" anecdotally requested texts "that will tell [the students], there are as many silly men in the world as women."

"We cannot learn the shape of objects by touch alone unless we can embrace them or completely encircle them with our hands."

—"Printing for the Blind. Report of A Committee of the American Social Science Association at the General Session in Detroit, Michigan, May 1875" (Boston, 1875).

"Gift #3" (2016). Poplar and soap finish.

Geometry is a repeating theme in the exhibition, reflecting the prevalent use of grids and abstraction in the education of the blind in the 19th century. "Gift #3"

is a response to the work of two educators, one blind, and one whose educational method was adapted for the use of the blind.

Mathematician Nicholas Saunderson (1682–1739), known particularly for his innovative approaches to teaching geometry, held the prestigious Lucasian Chair at Cambridge University from 1711 until his death. Blind from the age of one and chiefly self-taught, the popular lecturer developed “palpable arithmetic” tools that allowed him to perform complex calculations and to explore geometric proofs. Though he wrote little on his own teaching methods, a later biographer reported that Saunderson had the Platonic solids (i.e., 3D shapes where each face is the same regular polygon) carved in wood to better communicate his geometry lessons to his sighted students.

A century later, in 1837, Frederick Wilhelm Froebel (1782–1852) opened the first “kindergarten” based on his philosophy that the unity of all things could be taught to young children through a series of abstract design activities, called Froebel Gifts. The first Gifts in the series encouraged block play and the manipulation of geometric shapes, calling to mind the teaching tools used by Saunderson. As the children advanced, the activities became more complex. Students would fold and weave paper to produce intricate patterns and shapes. In 1885, the Perkins School for the Blind opened the first kindergarten for

visually impaired children in the United States. The school was founded on Froebel's system. The "learning through doing" approach proved to be well-suited for students at Perkins.

Historical items relating to both Froebel and Saunderson are on display in the closed case on the west wall. These include an example of Froebel Gift #14, the woven pattern or mat-weaving activity, and an illustration of Saunderson's "palpable arithmetic" calculator. Two more examples of Froebel Gift #14, from the same volume in the exhibit, are reproduced beneath this text.

"I fancy there is a striking analogy between the effect of colors upon the eye, and sounds upon the ear. Both please or pain by their harmony or discord."

—Lansing V. Hall, "Voices of Nature" (Rochester, N.Y., 1870).

"Gift #4" (2016). Silkscreen prints and cherry. Accompanied by Thomas Wiggins, "March Timpani" from "John Davis Plays Blind Tom: The Eighth Wonder" (Newport Classic, 2000).

The musical composition "March Timpani," written before 1880 by Thomas "Blind Tom" Wiggins (1849–1908), inspired "Gift #4." Born a slave and likely

autistic, Wiggins lived his life removed from the efforts to educate the blind in the 19th century. In this piece, Jaynes brings Wiggins into that educational movement. Referencing the prevalence of grids and abstraction in the education of the blind, the patterns embody a visual translation of Wiggins's music. The artist assigned a number to each note of this composition based on its position on the piano keyboard, and further divided the number according to the length of the note. Jaynes then mapped the data to create this patterned work. A recording of "March Timpani" completes the piece.

Born blind, Wiggins immersed himself in noise from an early age, memorizing and replicating any sound he heard. His prodigious musical abilities soon became apparent and before long, Wiggins developed into a master pianist and a gifted composer. He performed before enthusiastic audiences for fifty years, earning a fortune for his owner, who retained legal control of Wiggins long after the abolition of slavery. Posthumously diagnosed by Dr. Oliver Sacks as an autistic savant, contemporaries alternately acclaimed and derided Wiggins as everything from an angel to an imbecile.

Several commentators referred to the spirit of the brilliant musician trapped in the body of Blind Tom, as if unable to reconcile the sophistication of the compositions with the man they saw before them. But the music could not be separated from the man. With

the focus of all his senses, Wiggins turned noise into music, chaos into art. The music did not escape from him. It was born from him.

Large-scale brass musical notation (date unknown).
On loan from the New York Institute for Special Education.

Jaynes arranged the brass notes framed on the wall to replicate an excerpt from “Oliver Galop,” composed by Wiggins at age ten. Schools for the blind included musical education as a standard part of the curriculum. Like the printing of text, the raised representation of musical notation underwent continual development and gradually evolved into a more complex dot system. However, those who pursued careers in musical education typically taught the sighted and needed to be able to read, understand, and compose with traditional musical notation. A comprehensive musical education for the blind, one that would prepare students to work with the sighted, necessitated the use of objects like these fully modular brass notes.

Perceive the moments before a Tom Wiggins recital through sound and smell from the olfactometer in the curved wall, to the right of this display.

“Darkness to the blind has no terrors.”

—William Artman and Lansing V. Hall, “Beauties and

Achievements of the Blind” (Rochester, N.Y., 1872).

“Gift #5” (2016). Porcelain, linen, and embroidery.

“Gift #5” is an abstract interpretation of the life and adventures of the noted English surveyor and road builder John Metcalf (1717–1810). The key denotes various landforms. The colors of the embroidered grid refer to different environments. Green = Woodlands. Pink = Moors. Brown = Rock outcroppings.

Metcalf lost his sight from smallpox at age six. His parents provided him with a musical education so that he might earn a living, but to live life as only a fiddler proved too limiting for the adventurous Metcalf. At various times, he worked as a horse-trader, hunter, wagon-driver, soldier, smuggler, and cotton-merchant. Metcalf earned renown as the builder of over 180 miles of road in and around Yorkshire, in the north of England (a map of this region is reproduced below this text).

He routinely won surveying and building contracts over more experienced engineers, and earned praise for developing innovative foundations to build roads over terrain once thought too challenging. Metcalf knew the land intimately from his years exploring it with his non-visual senses. This skill, coupled with his innate genius, set him apart from his competitors.

Metcalf was a legendary figure even before his death

at age ninety-three, and the story of his life was often reprinted. A pamphlet featuring a cover illustration of Metcalf is displayed in a closed case on the west wall. A book written by William Moon (1818–1894), inventor of the embossed Moon alphabet, rests below it. The open volume shows a tactile topographic map of the British Isles. Blind students learned geography using maps and globes marked with a wide variety of tangible materials, including pins, screws, strings, and plaster, to indicate land features and political boundaries.

John Bartholomew & Co., Bathy-orographical map of the British Isles from “The Times’ Atlas” (London, 1922). Courtesy of The David Rumsey Historical Map Collection, with minor color modification.

“Life of John Metcalfe, Commonly Called Blind Jack of Knaresborough” (Otley, England, ca. 1845).

William Moon, “Light for the Blind” (Brighton, England, ca. 1880).

Perceive the sounds and smells of one of Metcalf’s youthful adventures from the olfactometer in the curved wall opposite “Gift 5.”

To experience the olfactometer, put on the headphones, adjust the funnel, and place your nose

3–5 inches in front of it. Press the button to start. You will hear two different sound clips, each about ninety seconds in length. Timed releases of fragrance from the funnel accompany the clips. At the end of the last audio and fragrance pairing, please return the headphones to their holder.

Produced in collaboration with the Monell Chemical Senses Center and the Demeter Fragrance Library.

“Sound fills the soul, while light fills the eye only.”

—William Artman and Lansing V. Hall, “Beauties and Achievements of the Blind” (Rochester, N.Y., 1872).

“Gift #6” (2016). Olfactometer with audio.

The following vignettes are conveyed through sound and smell from the olfactometer in the curved wall.

Vignette #1: The listener arrives at a music hall to hear a piano recital by Thomas “Blind Tom” Wiggins. The crowd begins to gather. Someone plays scales on a piano. The crowd settles. Applause begins. Footsteps travel across a stage. Wiggins sits and begins to play “March Timpani.” The music fades out.

Vignette #2: The listener hears a scene from the mischievous youth of John Metcalf. Enlisted by friends to “borrow” a pack of hunting dogs from the local gentry, Metcalf sets out before daybreak. He

travels on horseback, his own dog by his side. He journeys over hill and vale, through forest and brook, past a mill and across a dam. He dismounts and tugs on his dog's ears, taking advantage of the echoes created by the nearby castle walls and Belmont Woods. The dog howls, calling the pack. The unpenning hunting dogs run to Metcalf and encircle his horse. They gallop off to start the hunt.

"The Marvelous Musical Prodigy, Blind Tom, the Negro Boy Pianist" (New York, not before 1867).
Reproduction.

Displayed on this wall is the back wrapper of a small, cheaply-made pamphlet describing "Blind Tom" Wiggins's early years, including his song list, "imitations," and testimonials of his concert performances. Wiggins's life and career were widely promoted through such media.

Thomas Wiggins, "The Battle of Manassas" (Chicago, 1866). Sheet music, framed

Wiggins composed "The Battle of Manassas" at the age of twelve after hearing reports of the fighting at the first major battle of the Civil War. The disorganized Union Army was routed in a surprise Confederate victory. Incorporating several well-known patriotic melodies, the piece is a musical interpretation of the din of battle, the arrival of

reinforcements, and finally, the retreat.

“He saw the whole, every link in the chain of reasoning, at a glance.”

—Abram V. Courtney, on Nicholas Saunderson, in “Anecdotes of the Blind” (Boston, 1835).

Displayed in the closed case:

1 Denison Olmsted, “The Rudiments of Natural Philosophy ... Prepared for the Blind, by S.G. Howe” (Boston, 1845). Michael Zinman Collection of Printing for the Blind.

In 1829, Samuel Gridley Howe (1801–1876) founded the Perkins School for the Blind in Boston. Howe developed an embossed alphabet, Boston Line Type, to enable the local production of raised-print works for his students. He adapted American astronomer Denison Olmsted’s 1844 science text into an embossed volume a year after its publication. Like the original, the text contains several illustrations, but here they are enlarged for easier finger-reading. This page shows a diagram of four snowflakes in the chapter on meteorology. The geometry and symmetry found in snowflakes correlates with the symmetry that formed the focus of Frederick Wilhelm Froebel’s teaching method of Gifts (see “Gift #3” in the northeast corner). Froebel worked as a mineralogist

before founding the first kindergarten. His work with crystals influenced the development of his system of education.

Please touch facsimiles of these snowflakes in the book displayed to the left of this case.

2 Arithmetic blocks (not before 1833). Wood and metal. On loan from the New York Institute for Special Education.

To teach math to their students, educators of the blind developed many different tools. These frequently took the form of multi-compartmented frames into which blocks could be placed to compose equations. One early tool used a set of blocks, each with a raised number on one side. This proved too cumbersome, as students first had to find the appropriate block among many. This tool simplified the concept. Most blocks had a 'T' on one side and a 'V' on the other. This block could be used to represent any number from one to eight, based on which side faced up, and in which direction it was placed in the frame. An additional block featured an 'L' on one end and a blank surface on the other. These represented nine and zero respectively.

3 Caroline M. Sawyer, "The History of the Blind Vocalists" (New York, 1853). Michael Zinman Collection of Printing for the Blind.

This volume includes brief biographies of “The Blind Vocalists,” traveling performers who enjoyed some popularity in the mid-19th century. The two men and two women honed their musical abilities at the New York Institution for the Blind, now the New York Institute for Special Education. The author, an advocate for education for the blind, used her text to describe and promote the curriculum of the Institution. Samples of embossed prints, as well as illustrations of tools used at the school accompany the biographies. This illustration depicts the blocks and corresponding frame used for math lessons at the Institution during the 19th century, examples of which are also in this case.

4 Mat weaving scrapbook of Daisy Lowengrund, b. 1872 (ca. 1885–1905). Gift of Mr. & Mrs. Robert Bendiner.

This scrapbook, created by a young sighted woman, includes many examples of woven patterns made of colored paper. Pattern weaving was a component of the educational method developed by Frederick Wilhelm Froebel (see “Gift #3” in the northeast corner, as well as the pattern on the east wall). Froebel’s system incorporated structured, creative play through a series of Gifts that became increasingly complex. This constitutes an example of Froebel Gift #14. The Perkins School for the Blind holds numerous similar examples of mat weaving created by their students. Deafblind student Thomas Stringer, brought to the

school by ten-year-old Helen Keller, designed a workbook of particular note.

5 Euclid's proof of the Pythagorean Theorem and beginning of the Lord's Prayer (Boston, 1833). Embossed print. Michael Zinman Collection of Printing for the Blind.

The newly-opened New England Institution for the Education of the Blind (now the Perkins School for the Blind) showcased two embossed leaves in its 1833 report, as exemplars of the teaching materials used by the students. One leaf featured a map of New England and bars of music. The second featured the diagram and prayer on display here. Perhaps used as a promotional piece, the item in this case was issued separately, though made from the same plate as the leaf included in the report. Interesting features are the deep plate marks and the card stock. Also, the style of the letters indicates the possible place of production as France (the school's director developed Boston Line Type two years later) and the mathematical proof proves erroneous. Points A and L should be connected by a line.

6 Sébastien Guillié, "An Essay on the Instruction and Amusements of the Blind" (London, 1894 reprint of 1819 edition). On loan from Michael Zinman.

This plate depicts the tools developed and used by Nicholas Saunderson, the noted 18th-century blind

mathematician. For more on Saunderson, see “Gift #3” in the northeast corner. The table on the left of the page shows how he used a board, pegs, and ribbon to form geometric figures. The table in the center shows (poorly) how Saunderson used the same board to record calculations. The table to the right explains how each number was expressed on the board.

“In cold climates, flakes of snow consist of regular crystals, presenting many curious figures, which, when closely inspected, appear very beautiful. Nearly a hundred distinct forms of these crystals have been particularly described by voyagers in the polar seas, a specimen of which, as they appear under the magnifier, are exhibited in the following diagram.”

—Denison Olmsted, “The Rudiments of Natural Philosophy ... Prepared for the Blind,” by S.G. Howe (Boston, 1845).

“Gift #7” (2016). Book with embossed paper.

In “Gift #7,” the artist recreates a raised diagram of four snowflakes pictured in an embossed 1845 edition of Denison Olmsted’s “Rudiments of Natural Philosophy.” The volume is displayed in the closed case to the right. The depiction of the geometric crystalline structure of snowflakes resonated with Jaynes. This structure epitomized the beauty of symmetry in nature, a concept that was prevalent in

19th-century education for both the sighted and the blind.

Levi T. Rice, "F.N. and S.A. Jacobson, May 3d, 1890" (Auburn, Indiana, 1890). Albumen print.

The studio portrait framed and hanging on the south wall shows the Reverend Frederick N. (1862–1915) and Mrs. Susanna A. Jacobson (b. ca. 1866). A young couple of modest means, the preacher, who is blind, stands next to his seated wife. Common in portraiture of this era, the photo shows each holding books. Rev. Jacobson reads by touch a large embossed book on a pedestal in front of him, while his wife cradles two books in her lap. The formal portrait contradicts centuries-old perceptions of the blind. Jacobson is educated, independent, and living a full life, including the intimacy and companionship of marriage.