

The light of knowledge. Brief historical outline of some of the talented people who changed the destiny of the blind, from Haüy to Brail

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Abstract. In the 16th and 17th century the blind were considered unfortunates who could have no other future than to “*to be mocked by idle folk in the public square for their blundering and clumsiness*”. Clearly no sort of instruction was considered for such people. The change came at the end of the 18th century, thanks to Valentin Haüy, a philanthropist and teacher of calligraphy, who had also been a pupil of the abbot Michel de l'Épée. short historical excursus from to Valentin Haüy to Charles Barbier de la Serre.

Key words: Valentin Haüy, Charles Barbier de la Serre, Michel de l'Épée

Historical outline: Haüy to Braille

In the 16th and 17th century the blind were considered unfortunates who could have no other future than to “*to be mocked by idle folk in the public square for their blundering and clumsiness*”. Clearly no sort of instruction was considered for such people.

The change came at the end of the 18th century, thanks to Valentin Haüy (Fig. 1), a philanthropist and teacher of calligraphy, who had also been a pupil of the abbot Michel de l'Épée.

Haüy decided to use a new method of printing with mobile characters in relief to teach “*reading, music and a trade*” to blind children. He began to test the idea with his first blind student, a boy named François Lesueur (1). Subsequently, he published his findings in an article entitled *Essai sur l'éducation des aveugles* (Essay on the Education of the Blind). His desire to help blind children and give them the opportunity to obtain an education prompted him to present his project to the *Société philanthropique*, which recognized its educational merits and assigned him a house and a first group of twelve blind students (2).

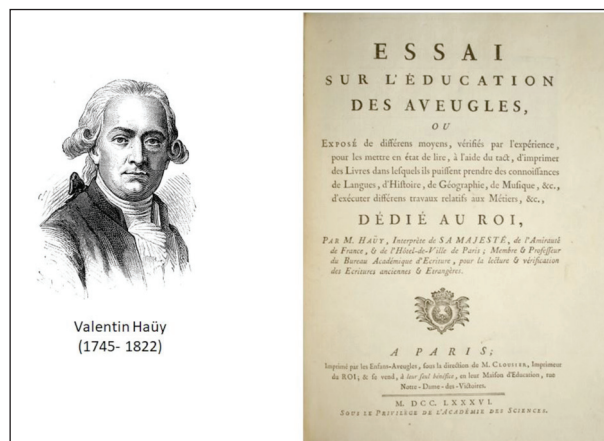


Figure 1. Valentin Haüy.

Haüy also wanted his blind students to be able to write, and took advantage of the progresses made in the field of printing to develop “*several models of tablets in wood with grooves and rods to frame the space for writing: they were used jointly with a card containing letters and numbers that served as models for the blind students to learn how to write them. Some had a frame on which the sheet could be fastened, with a row of holes along the sides*”

to mark the space between the lines. The blind students, though they now had the ability to write, were not, however, able to read back what they had written and correct any errors” (3).

The recognition of the validity of the methods he had developed and used enabled Haüy to obtain the title of *inventor of visual printing in relief* by the Academy of Science of Paris.

We can say without a doubt that those 12 students of Haüy were the first working group that led to the foundation of the *Institution nationale des jeunes aveugles*, the French school for the blind that is still operating today in Paris (4).

His passion and enthusiasm led Haüy to become the contact person and promoter for opening new schools for the blind in other parts of the world, including St. Petersburg and Berlin (5).

Haüy’s studies of writing methods prompted the Austrian typhlogist and founder of the Vienna Institute for the Blind, Johann Klein (Fig. 2), to conceive and develop a new method of writing that made use of a punch, so that the characters could be perceived by the blind through touch (1).

At the same time, Maurice Ballu developed a method of writing that used lead blocks on which the letters of the alphabet were set in relief.

Klein and Ballu both realized that it was more practical to trace the letters with a dotted line rather than a continuous one (1).

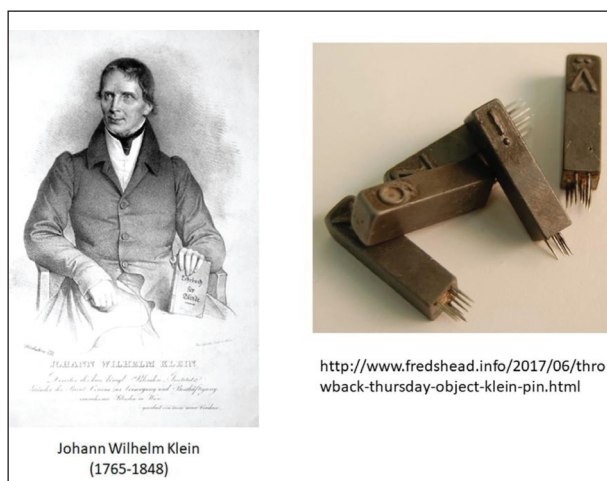


Figure 2. Johann Wilhelm Klein.

The method that took the name of Ballu or Cu-barithm was a system of specular writing, slow to apply as the composition of each letter required the use of many dots. It was a method that made it possible to write, using a special tablet, and to read back the composition of the text. Clearly, however, reproducing texts using this method was difficult because it would have required too much space.

The breakthrough came with the method developed by Louis Braille (Fig. 3) (6).

Louis Braille was born in Coupvray, in France, into a modest family, and lost his sight at the age of three as the result of an accident which occurred while playing with the tools his father used in his trade as a saddler.

Braille’s family believed strongly in the importance of education, however, and he was taught to read, with the help of his father, who carved the letters of the alphabet for him in wood (7).

His active intelligence and enthusiasm for learning brought Louis Braille to the attention of the Abbot Palluy, the educator Becheret and the local nobility, who funded a scholarship to send him to the Royal Institute for the Blind (8).

Their belief in young Braille was not disappointed, as he turned out to be a model student, and in fact was hired, while still very young, to teach grammar, history, geography and mathematics at the school.

He was also a fine musician, and learned to play a number of instruments, later also becoming a music teacher of his blind students.

Although Braille’s life was intensely busy “there was one idea that would not let him sleep”: he wanted to find a method of writing for the blind that would



Figure 3. Louis Braille.



Figure 4. Charles Barbier de la Serre.

be simpler and faster than what was then in use. His first idea was to eliminate the continuous line using, instead, series of *dots* that would be more readily perceived by touch. His students welcomed the method, but he had to teach it to them in secret for many years because it was not accepted by many scholars and typhologists, who accused him of developing a method that prevented direct communication between the writings of the blind and those of the sighted (9). The language he used was described as *encrypted, incomprehensible to anyone who did not possess the key*.

Braille's idea arose from the method developed by Charles Barbier de la Serre (Fig. 4), a military officer under Napoleon. He developed a system that used dots, which he considered more suitable for tactile identification. Barbier's alphabet used twelve dots and was based on the French phonemes. It was called "*night writing*" or "*sonography*" and was used in the military field to enable different divisions to communicate silently and in the dark. In order to write with the Barbier method a *sliding perforated stick was used, without any consideration of spelling, numbers and punctuation* (3).

In 1815 Charles Barbier de la Serre published an article entitled "*Essai sur divers procédés d'expéditive française contenant douze écritures différentes avec une Planche pour chaque procédé*" (Study of different procedures for writing French containing a dozen different methods of writing, each with its respective table for rapid execution). Barbier's method *was based on twelve dots in relief arranged on two vertical columns of six, in*

combinations according to a table that the students had to learn in advance, representing the letters and sounds of the alphabet (3).

Braille studied and used the Barbier method to some extent, although he had several objections to it. He was critical of the complexity of the method and finally found the solution, inventing a system with just six dots in relief and sixty-three combinations to form *the letters of the alphabet, accented vowels, numbers, mathematical signs and punctuation* (3).

Thanks to the invention of Braille, in 1820, many texts were transcribed in Braille code and many blind children were able to approach the world of culture for the first time.

Soon after, new schools for the blind were opened all over the world, and it was thanks to the invention of Braille that the quality of life of these people changed radically (1,8).

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