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The pioneer in the education of the blind, and deafblind in the United States: Samuel Gridley Howe (1801-1876)[1]

O pioneiro da educação de cegos e surdocegos nos Estados Unidos: Samuel Gridley Howe (1801-1876)

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ABSTRACT

Samuel Gridley Howe is one of the most influential intellectuals in the history of education for the blind and deafblind in the United States. Responsible for directing the first North American institute founded in 1829, now the Perkins School for the Blind, Howe created a typography for printing books with raised letters, edited teaching materials for the education of the blind, and developed the method of teaching the deafblind. A young doctor, he engaged in philanthropy and politics to defend education, people with disabilities, and enslaved people. Sources range from the theoretical-methodological contributions of Jean-François Sirinelli to the study of intellectuals, personal correspondence, newspapers, periodicals, and institute reports. In this article, we present an analysis of this intellectual's trajectory and educational ideas, whose development led to the creation of a new ideology regarding the education of the blind and deafblind in the 19th century.

Keywords: History of Education. Special Education. Blindness. Deafblindness. United States.

RESUMO

Samuel Gridley Howe é um dos intelectuais mais influentes da história da educação de cegos e surdocegos dos Estados Unidos. Responsável pela direção do primeiro instituto estadunidense,

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fundado em 1829, atual Perkins School for the Blind, Howe criou uma tipografia para impressão de livros com letras em relevo, editou materiais didáticos para a educação de cegos e desenvolveu o método de alfabetização de surdocegos. Jovem médico, engajou-se na filantropia e na política em defesa da educação, das pessoas com deficiência e dos escravizados. A partir das contribuições teórico-metodológicas de Jean-François Sirinelli para o estudo dos intelectuais, são utilizadas como fontes correspondências pessoais, jornais, periódicos e relatórios do instituto. Neste artigo, apresentamos uma análise da trajetória e das ideias educativas desse intelectual, cuja atuação permitiu a criação de um novo ideário sobre a educação de cegos e surdocegos no século XIX.

Palavras-chave: História da Educação. Educação Especial. Cegueira. Surdocegueira. Estados Unidos.

Introduction

The first institutes for educating blind people emerged in Europe between the end of the 18th century and the beginning of the 19th century. The pioneer school, founded in Paris in 1784, offered pupils intellectual and music education associated with manual activities workshops, serving children and young people. The second establishment, created in Liverpool in 1791, was characterized by asylum care, a residence and training school for work aimed at blind adults in need of a job for self-support. In the first quarter of the 19th century, there were already dozens of establishments for blind people in Europe in countries such as Austria, England, Germany, Switzerland, Holland, Denmark, Italy, and Russia, with seven institutes in the United Kingdom alone (RIPLEY; DANA, 1859).

The beginning of the century pointed to education as a vector of progress and modernity, prompting some sectors of society to direct efforts toward caring for people with disabilities. In this regard, the United States walked at a slow pace. The country had only one institute for deaf people, founded in 1817 in Kentucky, and none aimed at the blind. This gap encouraged the American doctor John Dix Fisher, who had known the French institute, to create the first establishment in North America under the direction of doctor Samuel Gridley Howe.

Howe had the expertise to inspire the confidence of the philanthropists who funded the venture. His work with exiles and refugees in post-war Greece went beyond medical care; his political involvement made him participate in revolutionary actions against Prussia years later. Politically engaged with the causes of subalterns, which would include enslaved people, prisoners, the blind, the deafblind, and the mentally ill, Howe was a figure who moved in different social spheres. In the history of American education, he is known as the pioneer in creating the literacy method for the deafblind. He was honored at the Universal Exhibition of 1851 for the presentation of his student Laura Bridgman, considered the first literate deafblind person.

Despite his relevance in the history of the United States, Samuel Gridley Howe is little known to Brazilian researchers. In Special Education, studies on 19th-century intellectuals involved in the education of the blind and deafblind focus on the actions of the directors and teachers of the Benjamin Constant Institute created in 1854 in Rio de Janeiro, the first of its kind in the country.

These researches underscore the history of the institution and demonstrate in their analysis the profile of the intellectuals who worked there, such as José Álvares de Azevedo, José Francisco Xavier Sigaud, Claudio Luiz da Costa, and Benjamin Constant Botelho de Magalhães, most studied for his role as a reformer of the Brazilian public education in the First Republic. Research by Sonia Maria Dutra de Araújo (1993) and Maurício Zeni (1997; 2005) stands out in this category.

Due to the French influence on the guidelines of the Brazilian institute, names such as Valentin Haüy, creator of the establishment in Paris, and Louis Braille, inventor of the dot code, are more recurrent in research, although without in-depth studies. The inaugural work by the French historian Zina Weigand (2009), not yet translated into Portuguese, fills this gap by mobilizing unpublished sources about these two intellectuals, shedding light on the history of the French blind from the Middle Ages to the end of the 19th century.

Although the lack of research in Brazil on Samuel Gridley Howe offers a fertile field for discussion, this brings with it the challenge imposed on the relationship between the researcher and his object. Studying the intellectuals who worked in the education of people with disabilities can lead us to a more condescending view. Given that little or almost nothing was done in favor of this group in the historical era, any initiative looks like heroism.

According to Sirinelli (2003, p. 232), the history of intellectuals is an "open field, located at the intersection of political, social, and cultural histories." Understanding how ideas come to intellectuals involves analyzing the genealogy of influences, following the formative itinerary of these individuals. In the case of Special Education intellectuals, it is possible to identify common ideologies in this group, visions about forged disability based on each era's philosophical and scientific reflections.

In the intellectual microcosm of educators of the blind, especially in the historiography produced in the 19th and 20th centuries, there can be seen a constant recurrence pioneers' achievements to highlight their influences over the years in an alleged evolutionary line. However, the tensions identified within this group reveal the different points of view marked by what Sirinelli (2003, p. 249) calls "antagonistic forces of adhesion," which concerns friendships and loyalties, and "antagonistic forces of exclusion," such as positioning and split-up. Identifying these social relations becomes essential for understanding the movement of ideas within a group.

Sirinelli proposes three analysis keys for the intellectuals' studies: intellectual itinerary, sociability networks, and generation. According to Alves (2019), it is

necessary to intertwine these three categories. The *itinerary* refers to the reconstitution of the intellectual's trajectory, not only his school formation but also the readings, the institutional positions, the birth of political conscience, and the subjects that intellectually marked his formation.

Sociability networks are formed by intellectual and political affinities, friendships, disputes, convergences, and divergences of thought that make up their "microclimate." Unlike contacts established involuntarily during the journey, sociability networks are marked by choices.

According to Alves (2019, p. 37), generation is the interpretation key that connects the other two, as it "helps the historian to detail the choices, the possibilities of intellectual formation, the institutional field, the spaces of cultural circulation, the impact of technological innovations, crossing the local, national and international levels".

The establishment of institutions for educating people with disabilities at the end of the 18th century gave rise to a new group of intellectuals. Institute directors and teachers had the opportunity to empirically test the philosophical ideas about education through the senses. The possibility of proving or disproving theories boosted the creativity of these pioneers. The inventive spirit of the first generation of educators for the blind carried on until the end of the 20th century, as well as the belief in the potential of educating their students. However, the intellectual atmosphere of the time tended more towards disbelief in this action, inciting these pioneers to prove the value of their ideas.

Based on the analysis of personal correspondence, the institute reports, newspapers, and publications of the time, as well as material produced by Samuel Gridley Howe's biographers, we present the trajectory of this intellectual, considering the innovative nature of his proposals, seeking to understand the origin and legacy of his ideas, and how they shaped his actions over the four decades in which he remained head of the Perkins Institute. The following complementary questions arise from this general topic: What projects did he develop, and for what purpose? How did his ideas resonate locally and globally? Who were his interlocutors? What was the impact of his thinking on the education of the blind and deafblind in the 19th century?

In this article, we will focus on Howe's two main educational activities: as an editor of school books for the blind and as a teacher of deafblind students.

United States's first institute for the blind

The first institute for the blind in the United States was due to the physician John Dix Fisher, who visited the French institute on a trip to Paris in 1825. Gathering a group of Boston philanthropists, he petitioned the Massachusetts state government for funding to build an asylum. Fisher presented a detailed report on information collected in France, showed books printed by Parisian students, and provided data on other institutes for the blind in Europe. On February 10, 1829, the establishment of The New England

Asylum for the Blind[2] with supplementary funding from the State was decreed (THE NEW ENGLAND, 1829).

Two years passed, and the asylum project remained only on paper. The committee, comprised sixteen men from Bostonian high society, had yet to find someone to run the establishment. The project began to materialize only in 1831 when Fisher reconnected with his former Harvard colleague, the physician Samuel Gridley Howe.

Born in 1801 in Boston, Samuel Gridley Howe began his studies at Brown University at age 17 and then went on to Harvard Medical School, graduating at age 23. His great admiration for Lord Byron led the young physician to join the British poet and novelist in the Greek War of Independence. In 1823, Howe served as a volunteer physician for the Greek army in the conflict for the country's freedom, which the Ottoman Empire had controlled for four centuries.

During the seven years that he remained in Greece, Howe helped to build a colony for the population of post-war exiles and refugees, an experience recorded in the five hundred pages of his book *An Historical Sketch of the Greek Revolution*, from 1828. Upon returning to Boston in 1831, he learned from his colleague the plans to establish the school for the blind and offered to take up the post of director (TRENT JR., 2012).

By accepting Fisher's invitation, Howe embarked on a new individual journey, different from that experienced as a military doctor but equally challenging. Without any experience in the subject and following the tradition of the traveler-researcher, he decided to learn about the work carried out in schools for the blind in Europe. Between October 1831 and June 1832, he visited institutes in Paris, Dresden, Berlin,[3] London, Liverpool, Edinburgh, and Glasgow. Howe wrote in his report that there was much to copy from the Old World experience but also much to avoid.

In the letters exchanged with the members of the Boston committee during the trip and in the final report with his observations, Howe outlined the type of education that would be given at the institute: manual activities to allow the blind to sell objects produced by them, guaranteeing them self-support; discovering each student's talent – whether in music, mathematics or basket making – and training them to be able to compete in the trade with seeing persons; physical exercise, physical and moral discipline; educating the family to treat blind children without privileges; intellectual

[2] The name was changed in 1834 to Perkins Institution and Massachusetts Asylum for the Blind. After 37 years, the name "asylum" was changed to "school", becoming Perkins Institution and Massachusetts School for the Blind. It is currently Perkins School for the Blind.

[3] During the trip, Howe took the opportunity to help his Polish revolutionary friends who were organizing an attack against Prussia. Accused of conspiracy, in March 1832, he was arrested by the police, spending six weeks in Berlin. After his release, he was banned permanently from Prussia (TRENT JR., 2012).

education only for those who had the aptitude for it; teaching reading and writing for all (ADDRESS, 1833).

Based on his experience in Greece, the doctor believed that developing their talents was the proper form of assistance and benevolence that allowed needy people to escape dependence. For an effective reform in the education of the blind, the first action was not to stigmatize them as members of a distinct and dependent group but to let them build their lives independently. In this sense, it was critical for mothers to become aware of the education of blind children, as they should permit their children to have the same experiences as other children.[4]

On his return from his trip through Europe, Howe brought in his luggage books printed with embossed letters in the English language and was accompanied by two teachers: for intellectual instruction, the blind Frenchman Emile Trencheri, a former student and teacher at the Paris institute; and for teaching manual activities, the Scottish mechanic John Pringle.[5] Classes began in the fall of 1832 at Howe's father's house, as there was still no building to host the institute.

Six months after classes began, the first public exhibition of the six students to members of the Massachusetts Legislature took place. The presentation started with music, a choir performance, and a hymn of gratitude to God. After a speech by Howe on the importance of educating the blind, students read scripture passages from the embossed books, located states on the embossed map, and organized numbers using metal type[6]. At one point, the doctor asked a blind student to bring a book from the school alone, which was done quickly; this caused astonishment and commotion among the spectators (FREEBERG, 2001).

Several exhibitions took place to raise funds for the establishment, which received donations from American citizens and state governments, such as Connecticut, New Hampshire, and Vermont. In this way, the institute could also host students from these states. Howe raised funds for the school and won the sympathy of Boston's elite, making his institute a charity favorite.

In 1833, with merchant Thomas Handasyd Perkins's donation of the mansion to house the asylum, it was possible to increase the number of admissions. The year ended

[4] In letters Howe wrote to parents, he reinforced the importance of children's autonomy. Like other children, they needed to run, play, walk alone, wash and dress, and even hurt themselves. Only in this way, he said, would the blind develop their autonomy and independence in adult life (RICHARDS, 1906).

[5] The idea that the blind would be the best teachers, as they knew the difficulties of their students, was unanimous among the directors of the schools. Some of them attributed the failure of their students to the seeing teachers.

[6] Types are the letters of the alphabet used in printing books, generally made of metal. These movable letters and numbers were used as pedagogical material in literacy for blind people.

with thirty students, organized into three groups: the first received classes in arithmetic, history, geography, English, French, Latin, and philosophy; the second, intellectual instruction and manual labor; and the third class learned handcrafts and music. Among the workshop activities were the production of rugs, baskets, and mattresses; girls learned housework, sewing, knitting, and weaving coarse mats (ANNUAL..., 1834).

For literacy, Howe tried several devices: letters made with string glued to paper; letters carved in wood, brought from Europe; letters made of porcelain and glass; and finally, the metal letters. From then on, he taught pencil writing, using the tablets developed at that point (FORTY-FOURTH, 1875-1876).

With the new facilities, public exhibitions were held within the institute, which opened its doors to visitors on Saturday afternoons. Howe knew that more potent than his appeal to authorities was the visibility of blind children so that the public could see for themselves the power of education. This practice of exhibitions showed another face of philanthropy, as observing the "eccentricity of disability" was a means of sensitizing viewers to the blessed action financed by them, leaving them with a conscience free of their sins – behavior not so different from the nobles of the Middle Ages, who gave alms in exchange for the prayers of the poor.

As Koutsoukos (2020, p. 26) states, regarding the human zoos at the great universal exhibitions, this philanthropic intention "ended up legitimizing and exacerbating, in visitors, feelings of racial, cultural and civilizing superiority that helped to excuse and justify the growing imperialism". In the case of the blind, it helped to excuse and justify their isolation within the institutes.

Over the years, Howe changed his mind about public exhibitions. In 1851, he told the institute's board of directors that it was too painful preparing for performances, leaving students tense and anxious. In addition to harming children's health, the purpose of the studies was to inflate the education offered instead of promoting effective student learning (NINETEENTH..., 1851).

From doctor to textbook editor

The institute's library was comprised of a few books brought from his European trip. To expand the students' library, Samuel Gridley Howe decided to produce his own books, seeking a method that would make copies less voluminous and reduce the cost of printing.

The production of books for tactile reading began to attract the attention not only of those concerned with the education of the blind but also of philanthropic societies that encouraged inventions in the various areas of science. In 1832, the Scottish Society of Arts promoted a competition for the best printed method of communication for the blind; its challenge was to create an alphabet that united legibility and printing economy. Over five years, twenty alphabets were presented, seventeen of which were arbitrary –

using dashes, dots, circles, semicircles, and shorthand signs – and three Roman – with the letters of the alphabet in different typographic styles. Among those enrolled were teachers of music and design, typographers and artisans, blind men, and directors of institutes. Howe was the only one in the competition representing the United States (SCOTTISH, 1837).

With the help of typographer and mechanic Stephen Preston Ruggles, the director developed letters of the Roman alphabet with a thinner design, without ornamental flourishes, and reduced to a minimum size for tactile perception. He adopted lowercase letters, making the space between lines narrower. His invention was named the Boston Alphabet. To reduce the volume of the book, they produced a thinner paper that guaranteed good quality relief. Although contrary to the use of arbitrary codes and signs in producing books for the blind, the doctor defended the diversity of Roman letters used in Europe.

> The idea of confounding the blind by a variety of characters, arises from the supposition that the sense of touch is possessed by them in a limited quantity, and must be economized or it will be exhausted; but physiology teaches us that the more a sense is exercised, the more its power is increased. It teaches us, too, that in forming an alphabet for the blind, we should give the greatest possible diversity of shape to the letters. It is much more difficult to distinguish four letters, expressed by one figure in various positions […], than four letters expressed by characters differing widely from each other. […] It is for this reason that the alphabet of Mr. Lucas, so strenuously advocated in Bristol, England, will never be a favorite one with the blind; nor can any other become so, which is not accordant with the laws of the physiology of sensation. (SEVENTH..., 1839, p. 22).

According to Howe, the literacy of the blind should be like that of sighted children, showing letters of the Roman alphabet with different shapes and designs. Howe was against the uniformity of books, as he believed that the blind should choose the type that was most convenient for them. In this sense, his proposal was for each institute to print its books with its own letters, as long as the titles were not the same, thus avoiding wasted investment and in turn forming a unique library.

In 1834, the Bostonian educator became editor of The New England Magazine, where he published his editorials. His experience as a writer and editor was boosted by publishing books with raised lettering, assuming authorship in most cases. His preferred subject was geography, so he developed the first relief maps for the blind in the country. In 1839, the institute's catalog had 21 works distributed to institutes in England, Scotland, Ireland, and Holland (SIXTH..., 1838).[7]

[7] A detailed analysis of textbooks published in the two leading institutes in the United States - Boston and New York - are at "School books for the education of the blind in the United States (1834-1900)" (FULAS, in press).

Phrenology and deafblindness

Howe's understanding of human psychology was based on the ideas of Scottish Enlightenment philosophers such as Thomas Reid and his disciple Dugald Stewart, who defended the existence of capacities, dispositions, and powers innate to the human mind. While Locke argued that knowledge of the external world was acquired through ideas translated by the mind through sensory experience, Reid reversed this thinking, saying that our ideas are not copies of our sensory experience but a mental act of understanding the external world, actions performed by the various capacities of the mind. In Howe's understanding, the absence of one of the five senses affected human nature, causing a disturbance in the development of moral and mental faculties responsible for character formation (NINETEENTH..., 1851).

Associated with this thought, Howe deepened his studies of phrenology, representing the empirical observation of the new psychological theory of the mind. By measuring the size of the skull, it was possible to determine people's character and mental capacity. Calling themselves reformer scientists and criticizing the concept of the "mind" as an intellectual abstraction, phrenologists argued that true scientific psychology should be underpinned by observation, based on the material world. After analyzing several skulls and brains, phrenologists concluded that the capacities of the mind had a physical existence, embodied in dozens of "organs" formed by the protuberances of the skull (SCHWARTZ, 1952).

After the visit of German physicist and phrenology founder Joseph Spurzheim, to Boston in 1832, Howe founded the Boston Phrenological Society to perpetuate the studies of his guru, who died that same year. Among the "organs" cataloged by phrenologists, Howe was interested in "language", which according to him, was responsible for creating and learning arbitrary signs to express thought (FREEBERG, 2001).

Howe also used religion to formulate his pedagogical ideas. For the doctor, a disability could not be understood as divine punishment, an innate sin inherited from Adam, determining children's destiny to a future without prospects. Aligned with Rousseau's ideas, he defended that all children were born naturally good and that it was the influences of a poor environment that corrupted them. For Howe, children had an innate moral disposition that was not taught with moral lessons (NINTH..., 1841).

According to the ideas of phrenology, each academic subject stimulated an "organ" of the child's brain that, along with a regular physical exercise program, would strengthen the muscles of the entire body, including the brain. The Bostonian educator defended the care of physical and mental well-being to obtain a well-organized mind housed in a healthy body. Howe believed that as the body has an appetite for food, and the mind has an appetite for knowledge. For this reason, the school's routine was rigorously organized into five periods: four hours of intellectual education; four hours

of instrumental and vocal music; four hours for recreation and food; four hours of manual labor; and eight hours of sleep (FIFTH..., 1837).

Five years after starting the institute's activities and the book printing project, Howe sought a new challenge. While reading an article in the *New Hampshire* newspaper, he learned of Laura Bridgman, a seven-year-old girl who had lost her senses of sight, hearing, taste, and smell after contracting scarlet fever. Howe believed that Laura's terrible condition offered the only chance to shed some light on one of the most significant problems in science: the senses' influence on the formation of knowledge and the constitution of human nature (FREEBERG, 2001).

The idea that touch could be used in the education of the deafblind had been anticipated by the French philosopher Denis Diderot in his work *Letter on the blind for the use of those who can see*, published in 1749.[8] According to Howe, there were two options for establishing communication with Laura: using hand signals created in her family environment or teaching her the letters of the alphabet, which for the doctor, was the most effective and valuable way to educate the girl (NINTH..., 1841). The appropriation of the alphabetic system by a deafblind person had seemed impossible until then. Samuel Gridley Howe's initiative represented a change in pedagogical practices and paved the way for a new understanding of deafblind education.

Howe documented detailed descriptions of activities with Laura Bridgman in institute reports. In addition to pedagogical issues, he included his analysis of physical, intellectual, and moral development. In 1841, Howe meticulously measured Laura's head to demonstrate that growth had occurred, which could be related to the girl's intellectual development. The reports praised Laura's behavior, such as her spontaneous joy, trust in people, and care for other children.

> The first experiments were made by taking articles in common use, such as knives, forks, spoons, keys, &c, and pasting upon them labels with their names printed in raised letters. These she felt of very carefully, and soon, of course, distinguished that the crooked lines *s p o o n*, differed as much from the crooked lines *k e y*, as the spoon differed from the key in form.
> Then small detached labels, with the same words printed upon them, were put into her hands; and she soon observed that they were similar to the ones pasted

[8] "Whereas for want of such a language, communication is entirely broken between us and those who are born deaf, dumb, and blind. [...] Perhaps they would have ideas if we were to communicate with them in a definite and uniform manner from their infancy; for instance, if we were to trace on their hands the same letters we trace on paper, and associated always the same meaning with them. Is not this language, madam, as good as another? Is it not ready to hand, and would you dare to say that you have never been communicated with by this method?
Nothing remains but to fix it, and make its grammar and dictionaries, if it is found that the expression by the common characters of writing is too slow for the sense of touch." (DIDEROT, 1916 [1749], p. 89)

> on the articles. She showed her perception of this similarity by laying the label *k e y* upon the key, and the label *s p o o n* upon the spoon. She was encouraged here by the natural sign of approbation, patting on the head.
> The same process was then repeated with all the articles which she could handle; and she very easily learned to place the proper labels upon them. It was evident, however, that the only intelectual exercise was that of imitation and memory [...], but apparently without the intellectual perception of any relation between the things. (NINTH..., 1841, p. 25)

Based on his phrenology studies, Howe pursued understanding and investigating Laura Bridgman's mind. He concluded that the girl's brain had an innate ability to understand and create language and that her mind power was only dormant but intact within the child's "damaged body". Against Locke's theory that the child's disposition and moral tendency depended on the development of the senses and intellect – and therefore should be learned and exercised – Howe argued that in Laura, there was an innate disposition to acquire the moral quality, once , the girl's moral development was superior to that of children of the same age, even with her intellectual limitation. For the doctor, we all have an innate disposition to accept the existence of God (NINTH..., 1841).

In 1837, the same year that Laura entered Perkins, Horace Mann, a member of the institute board and a friend of Howe, with whom he shared an intellectual and political affinity, became Massachusetts Secretary of Education and founded the *Common School Journal*. This publication aimed to publicize innovations in education implemented in the state. Mann was one of the reformers who advocated that children should be motivated to learn for themselves and by the gift of God, and not through the induction of rewards or punishments, the method in effect in typical schools. With his friend's encouragement, Howe began to publish reports on Laura Bridgman's development in the newspaper, which made the story of the deafblind girl known not only in the United States but mainly in Europe. In one of the publications, Howe urged his readers to reflect on the education of children with disabilities in comparison with other children: "If a child, who is deprived of the senses, learns so much, and behaves so well, what ought those children to learn and to do, whom God has blessed with the means of knowledge and of doing good?" (MANN, 1839, p. 91).

The reporting of Laura's case caused the most diverse reactions from readers, from surprise to incredulity. The eccentricity of the fact was expressed in the 1843 edition of the newspaper: efforts to educate horses, ducks, and pigs were successful, but none to educate a child who was deaf, blind, and without the senses of smell and taste (MANN, 1843). With the repercussions of the case, Laura became the institute's main attraction on visiting days. Everyone wanted to see her reading books, "talking with her hands" using signs, sewing, and playing with other children. A card with Laura's signature became a souvenir for visitors, and even a doll was crafted and used as a symbol of

childhood resilience. All children should be inspired by Laura, who was studious, educated, and persevering despite having only the sense of touch (FREEBERG, 2001).

One of the most illustrious visits received at the institute was Charles Dickens, who in 1842 relayed Laura's story in his work *American Notes*. Howe's crowning work with the deafblind girl occurred at the first Universal Exhibition in London in 1851. According to the Boston correspondent journalist, the contribution of the United States to the exhibition was considered a failure by some; however, the country could not have presented a better sample of their culture to be spread in Europe:

> In her person this remarkable child, or woman as she has now become, is a triumph of Art, to which the looms of England, the delicate fabrics of France, and the various products of Germany must all yield the palm. The interest excited by her history is universal. Her name is now, perhaps, known to a larger number of persons than that of any other female in the world, unless we except the Queen of England. [...] The heart of every American, and particularly every Bostonian, would throb with true pride on beholding Laura in that rendez-vous of the nations. (EVENING..., 1851, p. 2)

Howe received several letters from people across Europe who were impressed with his work in Boston. If decades earlier he had looked to Europeans for inspiration, now it was Europeans who were inspired by the achievements of the American educator.

On behalf of a national library for the blind

After Laura Bridgman's admission, the Perkins Institute began to receive more deafblind children. The teachers who cared for these students already mastered the literacy method created by Howe so that the director could dedicate more time to his editing project.

Howe's desire to create a library for the blind with various titles was always present in his writings. In addition to criticizing the competitiveness and rivalry between the institutes, he also targeted North American politicians, to whom he pleaded for the creation of laws that would ensure for each state funding for the printing of books (EIGHTH, 1840).

Determined to convince as many people as possible about the importance of books for the blind, the doctor took a five-month trip through the south and west of the United States, holding exhibitions of his students. Two students and two teachers accompanied him on this journey that lasted from November 1841 to March 1842. In each of the seven states visited, Howe reinforced the appeal to politicians for the formulation of laws that would guarantee the education of the blind under custody of the State (TRENT JR., 2012).

With this trip, the educator's work became better known nationally. The students' performance caught the attention of Kentucky legislators so much that they proposed

hiring one of the former Perkins students to take over the direction of the institute for the blind that would be founded in that state. On the other hand, the tour opened the door for Howe to enter political life. In 1844, he was elected to the Boston School Board, allowing him to advocate locally for educational reform proposed by Horace Mann.[9]

In 1846, Howe made a public proposal in his annual report for creating a National Library for the Blind through joint action by society and the state. His letter of intent, however, had no effect. There were several periods of shutdown of the presses due to a lack of funds, the most dramatic phase being during the Civil War, from 1860 to 1866.

The battle between the industrialized North and the slave-owning South led to the deaths of hundreds of thousands of Americans. Samuel Gridley Howe was an abolitionist and an active crusader, and his political position may have prevented him from advancing with his project. Not by chance, the American Printing House for the Blind (APHB) was founded in 1858 in Kentucky, a Confederate state, and was intended to be the official publisher of books for the blind in the United States. Nevertheless, with the Civil War, the actual operations took more than ten years to begin.

Until the founding of the APHB, the Perkins Institute Press was the leading supplier of books to American institutes. In 1871, during the Second Convention of American Instructors of the Blind[10], Howe released a circular stating that Boston presses could serve all institutes, selling books at cost price or up to 20% cheaper, depending on donations, since its objective was not to make a profit, but only to bring about a library for the blind in the country. From that year onwards, the books began to display the warning that the blind could acquire the works as a loan and should be returned to the

[9] With Horace Mann on the State Board of Education, and Samuel Gridley Howe on the City Council, both friends had the opportunity to put some of their reformist ideas into practice. Howe's first act was to apply a general assessment to Boston's students and teachers to measure their educational level. To his surprise, both teachers and students showed unsatisfactory performance. According to Howe, the blind students at Perkins knew more than the sighted students in the common schools. The suggestion to offer courses and better train teachers was also not well received. However, in 1839, the first Normal School in the United States was created in Massachusetts (TRENT JR., 2012).

[10] The first Convention of American Instructors of the Blind was organized by Howe seventeen years earlier, held in August 1853 at the Perkins Institute, with the participation of directors and professors from fourteen institutes for the blind in the United States. At that time, the assembly decided to write a memorandum to be delivered to legislators in Washington, pleading for public funding to maintain the institutes. According to US law, 6% of the amount collected by the municipality was invested in regular schools, and the group proposed that part of this tax be directed to institutes for the blind. The memorandum would be delivered the following year, along with an entourage of students from all institutes for a public display at the Congress. In this same convention, they decided that the Boston alphabet would be the official one adopted for printing future books (TWENTY-SECOND..., 1854).

institute after reading; in the case of the Bible, they should be returned after the death of the reader. The doctor found a path to create a circulating library (FORTIETH..., 1871-1872).

In his speeches, Howe continued to defend the diversity of books in Roman alphabets, which at that time were made in four types for the English-speaking blind: the Glasgow capital letter, the Worcester upper-lowercase letter, the Boston lowercase character, and the Philadelphia combined, which mixed uppercase and lowercase. However, the creation of arbitrary alphabets had not ceased with the competition of the Scottish Society of Arts. Since the invention of the stenographic alphabet by the Englishman Thomas Mark Lucas, those of the also Englishmen James Frere and William Moon had emerged, as well as the dot code by the Frenchman Louis Braille, which was beginning to gain followers in the Americas, and the adaptation of the French code made by the North American William Bell Wait, then director of the New York Institute.

This period was known in the historiography of the blind as the Era of the "battle of the types" and the "war of the dots."[11] The dispute involved not only the inventors of the alphabets and codes but also the teachers of the institutes that had their preferences.[12] Howe was unable to follow the outcome of this war. In poor health, he died on January 9, 1876 at the age of 74.

The library that Howe assembled for the blind during the 44 years of work had just over fifty titles, although only thirty were in the catalog in the year of his death. Despite being against arbitrary alphabets, in 1869 he began to use and resell the slate invented by Louis Braille for writing. The books in the dot code only became part of the library of the Perkins Institute in 1875, imported from London.

Only in 1879 did Howe's dream come true. The US Congress approved an annual budget for the maintenance of APHB, becoming the printer responsible for printing books for the blind in all schools in the country. After Howe's death, his son-in-law

[11] The expression "battle of the types" was used by John Bird in *The London Mirror* on February 19, 1870 (BIRD, 1870), and "War of the Dots" is a chapter of the book *As I saw it* by the blind educator Robert B. Irvin, published in 1955. Irwin (1881-1951) was director of public schools for the blind in Cleveland, Ohio, and held various positions on committees of associations involved in unifying the braille code between the United States and the United Kingdom.

[12] At the beginning of the 20th century, the project of placing blind students in public schools was underway in the United States, and the major decision of the Board of Education was about which system to adopt. For a more objective analysis, on March 24, 1909, the Elementary School Committee of the New York City Board of Education called a public meeting for representatives of the two braille-derived systems to present arguments in their defense. Reported the following day in *The New York Times* under the title "Blind people dispute rival systems", the meeting followed the rites of a trial: each side had one hour and fifteen minutes to present, with five representatives entitled to speak (THE BLIND, 1909, s.p.).

Michael Anagnos[13] took over the direction of the institute and proposed to the piano tuner, the blind Joel West Smith, the invention of a dot code from the matrix of Louis Braille. Called "modified braille," and later "American braille," it was created in 1878, the third dot code used simultaneously in North American schools. Works in Howe's character continued to be printed until 1882 by APHB. However, the production of books in the Boston Alphabet lasted until 1908 on the presses of the Perkins Institute (WATERHOUSE, 1975).

Final considerations

The first four decades of the 19th century symbolize the rise of education for the blind and deafblind with the founding of institutes, innovation in pedagogical practices, and investment in technology to offer the same instruction as common schools. Educators at the time faced the challenge of finding ways to teach children and adults how to apprehend the world through the senses, using the body as an instrument for learning.

The belief that it would be possible to identify some talent in students made Samuel Gridley Howe look to philosophical thinking and scientific advances to develop new teaching strategies. He pioneered using objects in the education of the blind and deafblind, a pedagogical proposal titled "Object Lessons" years later, through the book published by the English educator Elizabeth Mayo in 1839.[14]

The cases known in Europe so far about the education of the deafblind only included teaching hand signals as the only form of communication[15]. Determined to prove the possibility of making a deafblind person literate, Howe used movable letters and books with relief printing, a strategy only possible due to the work he had been doing for five years since the institute's founding in 1832. His pioneering spirit was recognized then,

[13] Michael Anagnos (1837-1906) married poet Julia Romana Howe Anagnos and was director of Perkins for thirty years. In 1878, he created the first kindergarten in the United States for the blind. He considerably expanded the volume of books produced on the institute's presses during his tenure.

[14] "The object lessons in general, also known as the 'intuitive method,' constitute a pedagogical proposal that advocates the student's direct contact with the world, through observation, experimentation, and manipulation, instead of getting to know it through reading books. [...] This pedagogical proposal required observing things, experiencing the world through the five senses, through intuition" (MUNAKATA, 2017, p. 91-92). Elizabeth Mayo's brother, Charles Mayo, had worked with Pestalozzi for three years. Mayo's work would become the major reference for the object lessons, later popularized by Norman Allison Calkins with the book *Primary Object Lessons*, published in 1861 and translated in Brazil by Rui Barbosa in 1886.

[15] The entry "The Blind", written by Charles Knight for The English Cyclopaedia of 1859, presents a complete history of the education of the blind and deafblind in several countries.

and his legacy enabled another deafblind woman, Helen Keller, to show the world the power and value of literacy for people with disabilities.[16]

The 19th century was a period of great scientific discoveries. The theory proposed by phrenology was attractive for Howe's purpose, who sought not only to understand the functioning of the mind but also to find answers about education through the senses that went beyond those offered by philosophers. Enthusiasm for these studies and the possibility of applying them empirically made him also flirt with the precepts of eugenics. The discovery of the hereditary gene led the educator to implement the separation of his students by sex in order to prevent them from associating and producing new children with disabilities.[17]

But it wasn't only the science that made the intellectual reassess his belief in the talent of the blind. Upon leaving the institute at the end of the study period, most students could not find a job and returned to the establishment to ask for shelter. There were also successful cases of alumni who became teachers and directors of institutes and who went on to university.[18] This reality made Howe expand the number of vacancies in the workshops so that at least his former students would have a profession that would guarantee them a dignified life.

As Sirinelli (2003, p. 259) states, "the intellectual is not infallible." However, the feeling of having failed did not change Howe's opinion of the potential of his students. His reluctance to use "asylum" in the institute's name came precisely from his opposition to the charitable profile of institutions for people with disabilities. For him, it was the duty of the State to guarantee blind and deafblind children the same conditions for

[16] In 1886, Helen Keller's parents approached Michael Anagnos, then director of the Perkins Institute. It was under his supervision that Anne Sullivan, who had entered Perkins in 1880 and learned Howe's pedagogical method, took over the education of the most famous deafblind woman of the 20th century. When Helen entered the Boston institute at the age of eight, she was able to live with Laura Bridgman, who would die in 1889 at the age of 70.

[17] The issue of hereditary disease divided opinions. At the Parisian institute, fourteen blind students got married and had sighted children. In the Quinze-Vingts hospice, founded in the 13th century, marriage between blind people was also not prohibited (HAÜY, 1800). At the international congress in Paris in 1878, marriage between people with disabilities was still discussed among the institutes' directors (CONGRÈS, 1879).

[18] In 1876, the American Association of Instructors for the Blind interviewed former students to evaluate the results of the work carried out in the institutes, especially regarding professional training. It was 3,437 blind people contacted throughout the country, and of these, about 40% were living from craft or manual activities; 20% working with music, either in churches or as teachers; 19% stayed at home, helping with housework; 8% working in education, as teachers and directors of institutes for the blind; and among other professions, only 3% worked in the book industry – ten editors, seventeen writers, seventy reading agents and two printers (SIXTIETH..., 1895).

schooling so as not to hurt the self-esteem of these individuals, calling them "students of charity" (SEVENTEENTH..., 1849).

According to Vieira (2001, p. 55), investigating the trajectory and ideas of intellectuals makes it possible to identify the relationships and "formative projects that mark the disputes around the path of the education processes of the new generations." The cultural heritage that Samuel Gridley Howe left for educators of people with disabilities was proof that education, literacy, and access to books were the main tools to pave the way for these individuals to be included in society. Through his writings and work as an intellectual, he created a new set of ideas about the education of the blind and deafblind in the 19th century.

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