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Sabine Arnaud

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“The Garments of Thought”: Writing Signs and the Critique of Logocentrism

If, while staying in a foreign country, in Constantinople for example or in Persia, you wanted to dress in the national costume, would the artisan you would call for worry about the shape of your French garment? Would he count the number of its different pieces? Would he consider anything other than your size and the proportions of your body? Imitate him: words and signs are the simple garments of thought.¹

With this anecdote, Rémi Valade introduced *Essai sur la grammaire du langage naturel des signes à l’usage des instituteurs de sourds-muets avec planches et figures* (Essay on the Grammar of the Natural Language of Signs for the Use of Teachers of Deaf-Mutes, 1854), illuminating the distinction between the syntax of sign language and that of speech. Sign language, he argued, should not translate spoken French literally but stand in direct relation to thought. With this salvo, he took a powerful position against the positions that abbots Charles-Michel de l’Épée and Roch Ambroise Cucurron Sicard put forth in the development of another sign language tradition, based on the autonomy of sign language. This was not a move to be taken lightly, as Valade was essentially establishing himself in opposition to the first two leaders of the first school to develop pedagogical techniques based on the use of sign language, which served as a model for the development of pedagogy for the deaf in Europe and in the US.²

Unless otherwise noted, all translations are my own.

¹ Rémi Valade, *Essai sur la Grammaire du langage naturel des signes à l’usage des instituteurs de sourds-muets avec planches et figures* (Paris, 1854), p. xiii.

² In the context of this article I avoid using *Deaf* with a capital *D* because of its anachronistic character. Following Annelies Kusters, Maartje De Meulder, and Dai O’Brien’s position in the introduction to their book *Innovations in Deaf Studies: The Role of Deaf Scholars*, I have decided to use the term *deaf* with a small *d* as the most inclusive term throughout the article, when no other term is prompted by the context; see Annelies Kusters, Maartje De Meulder, and Dai O’Brien, “Innovations in Deaf Studies: Critically Mapping the Field,” in *Innovations in Deaf Studies: The Role of Deaf Scholars*, ed. Kusters, De Meulder, O’Brien (New York, 2017), pp. 13–15. I keep the terms *deaf-mute* and *deaf* and *mute* any time that they are used by the authors that I quote and in the names of the institutions. At the time of de l’Épée and Pierre Desloges, the appellation in use was *deaf* and *mutes*. The compound word *deaf-mute* circulated in France from the French revolution, when the decision was made to create National Institutes for Deaf-Mutes. Legally, deaf-mute children were entitled to an education (even though in practice funds were never sufficient and just a small percentage got access to that education). As such, this research does not write the history of the people

At the time, while discussing *Langue des Signes Française* (LSF), teachers and writers all over Europe were thinking about sign language and giving it a universal scope. The renown of these French teachers drew assistants who wanted to learn their method, often with the support of their governments.³ Once trained, they would move back to their country of origin and open a school; this occurred in the Netherlands, the German lands, Italy, and Spain, among others, and had the effect of spreading de l'Épée's system of methodical signs and making it seem universal.⁴ The link to American Sign Language (ASL) would turn out to be the strongest of all:⁵ during a trip to London that Sicard undertook with two of his former pupils, Massieu and Laurent Clerc, who had since become his assistants, they met Thomas Gallaudet, who was eager to learn a method to give deaf children access to instruction. As Clerc recounted, Thomas Hopkins Gallaudet visited them in Paris in 1816 and, after attending classes for a while, invited Clerc to join him in the US. Clerc agreed and left his position at the National Institute.⁶ In 1817, Gallaudet and Clerc founded the first US school for the deaf in Hartford, Connecticut; Clerc became its first superintendent.

The links between the conception and pedagogy of sign language in France and the US were many. Throughout the first half of the nineteenth century, teachers in American schools conceived signs according to the French distinction between *natural sign language* and *methodical signs*, a distinction I will clarify in this article.⁷ After 1880, the move to

who were physiologically deaf but of those who got into the French education system and were labeled deaf-mute regardless of the hearing variations they had. For writers such as Desloges and Ferdinand Berthier, including the information in their publications that they themselves were deaf and mute or deaf-mute was a statement of empowerment.

³ Before the eighteenth century, the teaching of deaf people appears to have been carried out exclusively in the context of the aristocracy, with a tutor. A generation before de l'Épée, Le Fay is said to have taught deaf pupils; it is unclear whether he maintained an actual school or not. At the time of de l'Épée, Claude-François Deschamps opened a school, as did, a few years later, Charlotte Blouin.

⁴ To name just a few: M. Dole and Louis Guyot from Holland, Johann Storck and M. May from Vienna, Muller from Mayence, Germany, Abbot Michel from Turin and Thomas Sylvestri from Rome, John Conrad Ulrich in Zurich, and D'Angolo, Darigolo, and José Miguel Alea Abadía from Spain. See Maryse Bezagu-Deluy, *L'Abbé de l'Épée, Instituteur gratuit des sourds-muets 1712-1789* (Paris, 1990), p. 216.

⁵ See Ted Supalla and Patricia Clark, *Sign Language Archeology: Understanding the Historical Roots of American Sign Language* (Washington, D.C., 2015). See also Emily Shaw and Yves Delaporte, *A Historical and Etymological Dictionary of American Sign Language* (Washington, D.C., 2015). On the structure of ASL, see especially Scott K. Liddell, *Grammar, Gesture, and Meaning in American Sign Language* (New York, 2003).

⁶ See Laurent Clerc, "Laurent Clerc," *Connecticut Common School Journal (1838–1853)* 6 (Mar.–Apr. 1852): 102–12.

⁷ See Clerc, *An Address Written by Mr. Clerc and Read by His Request at a Public Examination of the Pupils in the Connecticut Asylum before the Governour and Both Houses of the Legislature* (Hartford, Conn., 1818). See also R. A. R. Edwards, *Words*

privilege the teaching of speech brought discussions on the conceptualization of sign language to a close, even though sign language was still in use in most places more or less informally.⁸ But in France between 1760 and 1880, a period that has been labeled by some the “Deaf enlightenment,”⁹ discussions about what methods to use, what type of language to privilege, and how to spread sign language and the teaching of deaf people kept expanding. Dating from the founding of de l’Épée’s school and throughout subsequent generations, schools and institutes maintained strong international connections, as attested by their libraries and archives, which contain many publications and journals of deaf culture and pedagogy in foreign languages—which are themselves full of international book reviews. Seen as a pioneer of deaf education, the French National Institute and publications by French teachers throughout France continued to be particularly influential for the importance they accorded the teaching of sign, a teaching that was also at the heart of most American schools. In addition, as we shall see, one of the notational systems created in France in the late 1810s would constitute the core of ASL writing in the 1960s.

The fame of the French pioneers of deaf education has retrospectively overshadowed the scope and significance of the debate on sign language throughout nineteenth-century France. In fact, Valade was not alone in questioning de l’Épée and Sicard’s conception of signs. Roch-Ambroise Bébien had already actively undertaken to revise sign language and to develop its written form, and Joseph Piroux had been creating ideograms since 1828. Unlike those who tended to assign sign language to a “primitive” stage of civilization in the wake of Bonnot de Condillac’s *Essay on the Origin of Human Knowledge* (1746), these teachers saw instead the potential for an entirely new conceptualization of language, closely connected to the movements of thought itself. The disparate character of the various attempts to conceptualize sign language led to a multiplicity not only of signs but also of systems. For some, signs were just a step toward learning written or even spoken French; for others, sign language was a language in its own right, which could one day replace the diversity of national languages. In fact, what some of these thinkers were contesting was the application of a phonocentric prism to sign language; sign language, they believed, was actually an invitation to move beyond a logocentric relation to language.

Made Flesh: Nineteenth-Century Deaf Education and the Growth of Deaf Culture (New York, 2012).

⁸ On the move to oralism, see Douglas C. Baynton, *Forbidden Signs: American Culture and the Campaign against Sign Language* (Chicago, 1996), and Anne T. Quartararo, *Deaf Identity and Social Images in Nineteenth-Century France* (Washington, D.C., 2008).

⁹ Gerald Shea, *The Language of Light: A History of Silent Voices* (New Haven, Conn., 2017), p. 90. See also Delaporte, *Les Sourds, c’est comme ça: Ethnologie de la surdimutité* (Paris, 2002).

Long before Jacques Derrida undertook a critique of phonocentrism as a form of ethnocentrism, a few teachers of deaf pupils rose to the challenge of working on a sign language independent of the structures of speech.¹⁰ For Derrida, this critique encompassed a reappraisal of Western limitations, while reflecting upon the boundaries and linearity of alphabetical versus ideographic writing. In his book *Of Grammatology* (1967), he mused upon the regularity of the reference to and metaphors of the voice and hearing (especially “entendement”) as access to knowledge.¹¹ Dirksen L. Bauman has since elaborated upon the political and societal biases that make hearing an expected competence, to the point of developing a prejudice, seeing in phonocentrism the foundations of audism.¹² What I would like to explore in this article is how the development of a pedagogy for deaf pupils went hand in hand with an examination of language itself, including the dominance of alphabetical language, and led thinkers to question its role in the development of thought. The context of the development of a writing proper to sign language was one of the ferments in which this critique took shape, making writing practice the threshold of a critical investigation into the expressive qualities specific to sign language.

My aim here is to sketch out the epistemological challenges and stakes of some of these conflicting approaches between the 1760s and the 1850s. This article will analyze some of the most radical linguistic conceptualizations about the potential of sign language to recreate the relationship between users and their language. I will consider how teachers’ positionings led them to conceptualize sign language in distinct ways, ranging from a temporary, intermediary tool to an autonomous language with a writing of its own. After considering de l’Épée’s methodical signs and how far removed they are from the conception of a language of its own, as well as a discussion of them by deaf writer Pierre Desloges, I will investigate how Bébien and Piroux’s conceptions of a writing specific to sign language led each of them to position it as a complete and independent language.

Establishing Sign Language

Histories of the education of deaf people tend to portray de l’Épée as the discipline’s “intellectual father,” who, when he started teaching deaf children in a school he founded in

¹⁰ See Jacques Derrida, *De la Grammatologie* (Paris, 1967).

¹¹ See *ibid.*

¹² See Dirksen L. Bauman, “Audism: Exploring the Metaphysics of Oppression,” *Journal of Deaf Studies and Deaf Education* 9, no. 2 (2004) and “Listening to Phonocentrism with Deaf Eyes: Derrida’s Mute Philosophy of (Sign) Language,” *Essays in Philosophy* 9 (Jan. 2008). See also Christopher B. Krentz, “The Camera and Printing Press: How Film Has Influenced ASL Literature,” in *Signing the Body Poetic: Essays on American Sign Language Literature*, ed. Bauman, Jennifer L. Nelson, and Heidi M. Rose (Berkeley, 2006), pp. 51–70.

the early 1760s, adopted his pupils' language of signs himself in order to teach and to promote its recognition.¹³ Even though he was not one of de l'Épée's pupils, Desloges was one of the first writers to contribute to this narrative. In a 1779 publication originally written as a defense of de l'Épée's method against Claude-François Deschamps's publication championing the teaching of speech, he describes de l'Épée's commitment to sign language and offers an analytical reflection on sign language itself. In terms of de l'Épée's relation to sign language, Desloges's portrait of him served the early creation of a legend:

It is thus not de l'Épée who created and invented sign language: quite the contrary, he learned it from the deaf and mute; he merely rectified what he found defective in this language; he broadened it, and gave it methodical rules. This learned Teacher saw himself as a man transplanted suddenly into a foreign Nation, to whom he wished to teach his own language: he judged that the surest means to achieve this was to himself learn the language of the land, so that the people could easily understand the instructions he intended to give.¹⁴

From the outset, writes Desloges, de l'Épée cast himself as the ignorant master.¹⁵ In the text he describes a community already using signs that adopted the teaching provided only in order to further its intellectual emancipation. In this narrative, it was not deaf and mute pupils who needed to understand language; rather, deaf and mute people were the originators of their own language, a language that hearing-speaking people then merely learned from them. By insisting that deaf and mute people were communicating before they were taught speaking and/or signing, deaf and mute pupils were characterized first and foremost as pupils of themselves and as teachers of their own teacher. Desloges later describes them as protected from unnecessary distractions and prone to meditation, which leads him to claim that sign language offers better conditions for analysis and the imagination than spoken language. Any modifications to this language made subsequently by de l'Épée, harmonizing or methodically ordering it, are just retrospective refinements. For Desloges, deaf and mute children not only generate a language of their own; they also build bridges to other languages by creating a language that can be translated—and into which all other languages can be translated.

¹³ Ferdinand Berthier, *L'Abbé de l'Épée, sa vie, son apostolate, ses travaux, sa lutte et ses succès* (Paris, 1852), p. 175.

¹⁴ Pierre Desloges, *Observations d'un sourd et muet, sur un cours élémentaire d'éducation des sourds et muets* (Amsterdam, 1779), pp. 7–8; hereafter abbreviated *O.* See also Renate Fischer, "The Study of Natural Sign Language in Eighteenth-Century France," *Sign Language Studies* 2 (Summer 2002): 391–406 and "Die Erforschung der natürlichen Gebärdensprache im Frankreich des 18. Jahrhunderts," *Das Zeichen* 63 (2003): 12–20.

¹⁵ This description recalls the experience of Joseph Jacotot as analyzed most astutely in Jacques Rancière, *The Ignorant Schoolmaster: Five Lessons in Intellectual Emancipation*, trans. Kristin Ross (1987; Stanford, Calif., 1991).

Though de l'Épée's publications presented every type of language accessible to deaf people, he is mostly remembered for his use of methodical signs.¹⁶ His own writings portray a teacher who is fully aware of his role in guiding his pupils, of the necessary pedagogical steps to be taken, and of the examples to be followed in order to become a successful instructor.¹⁷ He did acknowledge that sign language was born in the exercise of communication between deaf people and that he had first learned it from his pupils. But he also claimed to have invented a teaching method and used his authority to formalize and disseminate the use of signs. In fact, he was soon offering to train other teachers in his techniques.

It was de l'Épée who coined the term *methodical signs* to distinguish the signs used in the classroom from the “natural signs” that deaf people used for communication among themselves. In his *Institution des Sourds et Muets, par la voie des signes méthodiques* (Education for Deaf and Mutes, by Way of Methodical Signs, 1776), he describes how deaf and mute people use a language that is “all the more expressive for being the language of nature itself” and presents his methodical signs as the tools to access analysis and metaphysical ideas.¹⁸ He had already moved away from Étienne Bonnot de Condillac's conception of sign language as a merely innate language, the language of the first era of humanity—a conception that some of his nineteenth-century followers would return to; Condillac himself threw his support behind de l'Épée's conception of signs after attending some of his lessons.¹⁹

Yet in his manuals, de l'Épée's theorization went against this conception. His book, partly revised in a second edition, collected his experiences with his pupils, his conception of methodical signs, and his teaching method of spoken French. His signs, based on etymologies, were conceived in relation to one another, just as words can be gathered in families, with alternating prefixes or endings composed of several gestures—signs to complement and modify a central sign. For de l'Épée, signs were to equate the various

¹⁶ See Florence Encrevé, *Les Sourds dans la société française au XIX^e siècle: idée de progrès et langue des signes* (Grâne, 2012), and Harlan Lane, *When the Mind Hears: A History of the Deaf* (New York, 1984). On founding stories about de l'Épée, see Carol Padden and Tom Humphries, “Images of Being,” *Deaf in America: Voices from a Culture* (Cambridge, Mass., 1988), pp. 26–38.

¹⁷ Rancière's distinction between “the education of the people” and intellectual emancipation is most helpful in this regard (Rancière, *The Ignorant Schoolmaster*, p. 132).

¹⁸ Charles-Michel de l'Épée, *Institution des Sourds et Muets, par la voie des signes méthodiques* (Paris, 1774), pp. 36–37.

¹⁹ See Etienne Bonnot de Condillac, *Essai sur l'origine des connoissances humaines* (Amsterdam, 1746) and *Cours d'étude pour l'instruction du prince de Parme, Oeuvres complètes* (Paris, 1998). See also Fischer, “Language of Action,” in *Looking Back: A Reader on the History of Deaf Communities and Their Sign Languages*, ed. Fischer and Lane (Hamburg, 1993), pp. 429–55.

functions of the words in a sentence, as well as indicate gender and number. The body and its articulations became a metaphor for language and its articulations: for example, an article was to be designated by the jointure of the fingers; an adjective by the application of the left hand to the right hand; an adverb by the same sign associated with the one for the verb; a conjunction by a hook made with both right and left hands; a preposition by bending the fingers of the left hand and having this hand run from left to right on the line that was being read or written;²⁰ and a participle with the gesture of pulling a thread from one's clothes. Strictly speaking, de l'Épée did not use sign language but a system of signs that emulated written French.

The etymological and grammatical relationships de l'Épée foregrounded were a crucial tool for helping pupils remember the signs corresponding to words. As noted by Bébien, who would teach at the Royal Institute for Deaf-Mutes between 1817 and 1821, de l'Épée's system was meant to counter the difficulty of recording a sign when no writing implement was available to fix it on paper, which meant a lesson could not be reviewed once the teacher was absent. By strengthening the relationship between the word and the sign, this strict system provided a mnemonic tool. Yet by favoring this connection, it also downplayed the importance of the link to the idea, and so it might be possible for pupils to translate, back and forth, signs into words without recollecting their signification.²¹ Bébien lamented that although most pupils could correctly write any text dictated in signs, they were not able to express their simplest thoughts (see *E*, p. 25).

Fear of the complexity of adding signs used to express the part of speech of each word to the signs meant to convey meaning did not hinder de l'Épée. The goal was to teach a single French language, in a written version and a signed version. Pupils would possibly also be taught Latin, Italian, Spanish, and/or English with the same signs, for the admiration of spectators who came to the public lesson. Those pupils who showed a disposition toward speech could in a few cases also be taught to speak, as far as time allowed for a one-on-one education.²² The language was one and the same, and, as Desloges put it, critiquing Deschamps for forgetting this, “Abbé de l'Épée's aim was not precisely to teach his pupils the language of signs. This language was the means and not the end of his instruction” (*O*, p. 30). For de l'Épée, signs were a means of acquiring the grammar and syntax of written

²⁰ De l'Épée relied on books in his teaching. A significant part of the public lectures he gave was based on asking someone from the audience to choose a page from a book, which one pupil would then have to translate in signs, while another wrote it in French on the board only from the dictation in signs—to prove that the passage had not been prerehearsed.

²¹ See Roch-Ambroise Auguste Bébien, *Essai sur les sourds-muets et sur le langage naturel, ou, Introduction à une classification naturelle des idées avec leurs signes propres* (Paris, 1817), p. 38; hereafter abbreviated *E*.

²² See De l'Épée, *Institution des sourds-muets*, p. 155.

French; the abbot insisted on the role of spelling to understand syntax. The objective was to develop his pupils' capacity to function within the same thinking model as that of the hearing.

In fact, methodical signs were a language for instruction, not really meant to be used beyond the classroom. Not only was de l'Épée fully aware that, among themselves, pupils used natural signs—that is, signs they created and agreed upon between themselves without a grammatical structure superimposed upon them—he himself resorted to such signs on certain occasions. In an attempt to discourage his colleague François Laveau, who directed a school in Orléans until 1869, from continuing to teach methodical signs, Jean-Jacques Valade-Gabel, the previous director of the Royal and later Imperial Institute for Deaf-Mutes in Bordeaux (and later inspector of schools for deaf-mute pupils), recounted how de l'Épée would ask his pupils to use natural signs when they were presenting public theatrical representations so that they would be better understood by the spectators.²³ Constantly intermixing signs that stood for meaning and grammatical signs, methodical signs were not better understood by hearing than by deaf people. If methodical signs were meant to bridge the gap between natural signs and written language by adopting the syntax of written French, natural signs offered greater speed and ease of expression.

Expounding on sign language semiology, Desloges's *Observations d'un sourd et muet* (Observations of a Deaf and Mute) rethinks the system described by de l'Épée and divides natural signs into three categories. First, "ordinary or primitive" signs are the "natural signs that all Nations in the world use frequently in conversation for a wealth of ideas for which the sign is quicker and more expressive than speech" (*O*, p. 53). According to Desloges, these signs are used by hearing people as well, even if they do not think or reflect upon them, while deaf and mute people use them consciously. "Considered signs" (*signes réfléchis*), the second type of sign, involve a combination of general and particular signs (*O*, p. 54). Desloges gives the example of signs used to talk about someone known, which combine the general sign indicating the gender of the person and a specific sign identifying the particular person. "Analytical signs," the third kind, groups all signs "intended to represent ideas, which, having strictly speaking no natural signs, are brought into the expression of sign language by means of analysis" (*O*, p. 55). There was no mention of methodical signs; what distinguished signs was their degree of abstraction.

Even if his book was conceived as a defense of de l'Épée's teaching of sign language, Desloges does not allow de l'Épée the last word on conceptualizing sign language; his text not only responds to Deschamps's defense of speech but also answers de l'Épée's

²³ See Jean-Jacques Valade-Gabel, *Des Signes méthodiques et des signes dits réguliers* (Paris, 1862), p. 8.

claim of offering the best method for teaching deaf and mute pupils. In fact, Desloges demonstrates that deaf people are not only able to invent the system of language they use but to surpass the model offered to them (see *O*, p. 55). No hearing person could claim a better understanding of language simply on the basis of his or her auditory faculty. As such, Desloges transforms the significance given to sign language from a set of gestures intended to facilitate deaf and mute people's acquisition of civilization to a complete language of its own, testifying to deaf people's analytic strength. He reframes de l'Épée's contribution—from assisting deaf people in overcoming their isolation to supporting and disseminating their linguistic initiatives. Deaf people, far from being limited to natural signs, developed several types of signs themselves, to stand for abstract reasoning and to transmit their thoughts without resorting to the syntax of written and spoken French. This was actually the main point of divergence. For de l'Épée, the point was not to highlight the specificity of sign language so much as its ability to emulate speech; for Desloges, on the other hand, sign language functioned completely autonomously.

It was de l'Épée's approach that was prevalent in pedagogy at the time. Rey de la Lacroix, the father of a deaf daughter who insisted on deaf children's singular capacities, also minimized the use of sign language in favor of the acquisition of written French in a booklet he published in the year 9 of the republican calendar (between 1800 and 1801).²⁴ This was also the aim of one of de l'Épée's former students, Roch Ambroise Cucurron Sicard, director of the National Institute for Deaf-Mutes, which was created in year 1 (1792) to prove pedagogy's ability to endow all deaf-mute pupils with the average abilities of hearing pupils. Sicard went even further in the emulation of written French.²⁵ Both teachers clearly had in mind the goal of surprising contemporaries with the capacities of deaf children. Most significantly, the grammatical rules that represented the hearing mind were to be strictly copied. Even if de l'Épée and Sicard were advocates of sign language, their conception fully endorsed the superiority of speech, and their methods in no way represented a questioning of logocentric approaches to language and communication. The reception and limits of de l'Épée's and Sicard's methods were criticized, especially by Bébien, Joseph-Marie de Gérando, Ferdinand Berthier, and Valade-Gabel, among other nineteenth-century teachers. According to these members of the National Institute in Paris, both teachers, in wanting too badly to prove deaf pupils' ability to grasp linguistic subtleties, had forgotten the humble needs of everyday communication. Criticism of the complexity of such teaching, and claims that learning several languages had no value for deaf pupils, disregarded de l'Épée's main

²⁴ See Rey de la Lacroix, *La Sourde-Muette de la Clapière ou leçons données à ma fille, Essai élémentaire applicable aux enfants non sourds-muets* (Béziers, year 9).

²⁵ On Sicard's conception of signs, see Sophia Rosenfeld, *A Revolution in Language: The Problem of Signs in Late Eighteenth-Century France* (Stanford, Calif., 2001).

aim, the creation of another value: establishing the intelligence of deaf pupils and the value of their education at a time when there were no state initiatives supporting deaf education.²⁶

Writing Signs and the Critique of Logocentrism

Bébian, while paying tribute to de l'Épée and to Sicard, his uncle, for further developing de l'Épée's method, attempted to provide a radical new start in the conception of signs, their teaching, and their diffusion. He explained that his goal was to keep deaf people's natural signs, which would only be corrupted by reform.²⁷ To prove that deaf people had already developed a language on their own and testify to their linguistic autonomy, he quoted lengthy passages of Desloges's work. For Bébian, conceiving of signs in relation to words rather than to ideas was a mistake. He accorded gestural signs superiority over words, whose vagueness, he contended, could never be fully eradicated by the use of other words defining them. The difficulty teachers might encounter in expressing themselves in signs came from the habit of thinking with words, which, he claimed, tend to be equivocal and superficial, rather than thinking with gestural signs, which cannot be misinterpreted. Gestural signs were the voice of nature. As he explained: "The first step would be to strive to grasp clearly what one wants to say, independent from the sounds with which one could express it. This work, far from tiring the mind, gives it a new vigor, liberating it from the constraint of expression" (*E*, p. 117).

Beyond the creation of signs was the question of writing them down. At a time when stenographic writing was rising and philologists were devoting themselves to the task of translating hieroglyphs, the creation of a new system of recording language seemed timely. Speaking of the difficulty of training teachers to use sign language, Bébian stated:

If we don't find a way to smooth out this obstacle, we cannot hope to ever have a sign language dictionary, which is nevertheless so necessary, or even to form a regular and complete system. In fact, how can we classify these signs? How can we stabilize them in order to compare them? How can we express them in another way than by comparing them? Their formation is determined by no principle, according to no

²⁶ In a 1770 letter to one of his close friends, de l'Épée described his scheme. See de l'Épée, letter to de M. l'Abbé, "Lettre première de M. l'Abbé, instituteur des sourds & muets, à M. l'Abbé, son intime ami en 1771," *Institution des sourds et muets par la voie des signes méthodiques seconde partie, qui contient programmes des exercices qui ont été faits par les sourds & muets en 1771*, 72, 73, & 74; & les lettres qui y ont rapport (Paris, 1776), Seconde partie, p. 12.

²⁷ See Christian Cuxac, "La Mimographie de Bébian: Finalité et destin d'une écriture de la LSF," *Surdités* 5 (Apr. 2004): 81–95, and Fischer, "Zur Verschriftung der Gebärdensprachen Gehörloser; Bewegungsnotation mit der Mimographie," *Kodikas/Code* 18, nos. 1–3 (1995): 63–74.

constant rule. Instead of being perfected, left to the ignorance and to the system of each master, to the inconstancy and whims of each pupil, this language will be corrupted by the introduction of forms and vices from our languages, and will lose the invaluable advantage of transmitting thought in an immediate manner. [*E*, p. 27]

Although de l'Épée and Sicard had both compiled dictionaries, they were of no use to illiterate deaf pupils and could provide only limited assistance to their teachers for the written descriptions they provided of the signs to be performed.²⁸ Because pupils could not review gestural signs in their notebooks, after their lessons they were left with words but not the knowledge to understand a definition from a dictionary. Bébien reminded his readers that, for deaf people, vowels and consonants were largely meaningless—not unlike a hieroglyph for a hearing person. Regretting that the only dictionary available for deaf pupils was in the person of his teacher, Bébien took it upon himself to create a notational method so that these signs could be easily studied and remembered by teachers and pupils (see *E*, pp. 23–24). Only a writing specific to sign language would allow sign language to be properly recorded and disseminated and to evolve as a language on its own. The method, which he used in his teaching at the institute, could have led to the first real bilingual dictionary—but he unfortunately never provided one. Berthier, who had been Bébien's student and later became a teacher and dean of teachers at the Royal Institute as well as the president of the Société Centrale des Sourds-Muets, was still congratulating the invention some twenty years later in a text written about his master's work and life: “With such a method, the most ignorant deaf-mute could learn in eight to ten days to draw his thoughts on paper, without needing to translate it first into any other language.”²⁹ In fact, had it been adopted throughout the institute, the invention would have radically changed our access to deaf people's works and testimonies, which would not be limited, as they are, to those who mastered writing in French.

Bébien presented his method of mimography—a word he invented—in two works published in 1817 and 1825, respectively, and announced, in the prospectus for his school in Rouen, a publication in four volumes for 1832; he was waiting, the announcement said, for the illustration tables to be perfected before sharing them. This work was published anonymously and ignored the use of sign language or its writing; it consisted, instead, of a nomenclature, compiling very fine etchings of drawings of objects, animals, and activities

²⁸ De l'Épée's dictionary was only published in the late nineteenth century. See also de l'Épée, *Dictionnaire des sourds-muets*, ed. J. A. A. Rattel (Paris, 1896); Roch-Ambroise Cucurron Sicard, *Théorie des signes*, 2 vols. (1801; Paris, 1814); and Sabine Arnaud, “From Gesture to Sign: Sign Language Dictionaries and the Invention of a Language,” *Sign Language Studies* 20 (Fall 2019): 41–82.

²⁹ Berthier, *Notice sur la vie et les ouvrages de Auguste Bébien, ancien censeur de l'Institut Royal des Sourds-Muets de Paris* (Paris, 1839), p. 15.

along with their names.³⁰ Bébien insisted that the closer gestural signs were to spoken French, the further they were from their own economy. Emancipated from French syntax, the sign language conceived by Bébien had the potential to become a universal sign language. In fact, by proposing to write gestural signs, Bébien was reversing de l'Épée and Sicard's project and empowering deaf people with the means of regularizing their language according to its own genius.³¹ When he published his *Manuel d'enseignement pratique des sourds-muets* (Manual for the Practical Teaching of Deaf-Mute Pupils, 1827), Bébien directly expressed the necessity for teachers to investigate the genius of sign language. Condillac's chapter on the topic in *Essay on the Origin of Human Knowledge*, which dated a language's full development to the point at which its principles would start to be fixed and its character decided, doubtless played a role in Bébien's enterprise.³² From then on, sign language would be a language that hearing people would have to learn from these references, instead of basing their signs on the syntax of spoken French. This was probably one reason why the method was not adopted at the institute—loyalty to Sicard allowed teachers to avoid using it. Yet Bébien was prepared to go slowly. He described how, in this first phase, he had narrowed the scope of his project:

I would like to point out that I have made no claim to compose a writing that directly paints ideas. A purely ideographic writing, so often sought and always in vain, even if it were not controversial, which is impossible, could not fulfill my goal, which is to make deaf-mute people know the value of words by means of signs they are familiar with. I have wanted to represent the mimic sign, without considering for now its rightness. Thus, to judge this writing, one should not ask if all the signs we write are the exact expressions of ideas, but only if the characters we employ can faithfully paint the sign, whatever it is. Teachers can later correct and perfect their pupils' signs to make a regular language out of it.³³

With these words, Bébien equated the relationship between gestural signs and mimography to that between speech and writing: a visual trace meant to record and fix. The potential was there to give up signs of syntax and to revise gestural signs, which regularly mixed fingerspelling and iconic signs—for example, fingering the first letter of a word—to adopt, instead, gestural signs conveying nothing else than meaning. Describing fingering the first

³⁰ See Bébien, *Education des sourds-muets mis à la portée des instituteurs primaires et de tous les parents, Cours d'instruction élémentaire dans une suite d'exercices gradués expliqués par des figures* (Paris, 1831).

³¹ See Gilles Siouffi, "Le 'génie de la langue' au XVII^e et au XVIII^e siècle: Modalités d'utilisation d'une notion," *L'Esprit Créateur* 55, no. 2 (2015): 62–72.

³² Bonnot de Condillac, *Essai sur l'origine des connaissances humaines* (Paris, 2002), p. 163.

³³ Bébien, *Mimographie ou essai d'écriture mimique propre à régulariser le langage des sourds-muets* (Paris, 1825), p. 8.

letter of a word as a “corruption” of sign language,³⁴ he stood at the vanguard of radical thinking about sign language—and unwittingly initiated a discussion that would develop during the second half of the twentieth century about SEE (Signing Exact English) signs, which contested the use of initialized signs in ASL as the inappropriate presence of phonological references in signing.³⁵

With Bébien, the analysis of the diversity of possible gestures represented the start of a very detailed system. As such, from the very beginning mimography stood apart from the alphabetic system.³⁶ Writing the signs down would only emphasize their possible imperfection and incite everyone to revise them. Such a radical change, Bébien contended, would in turn favor the development of the signers’ intelligence. Setting up this challenge, the ambitious subtitle of his 1817 publication read: “Introduction to a natural classification of ideas with their proper signs” (*E*, title page). A sign, he explained in the text, was a compound of several gestures; to write down the sign, one would simply have to indicate the part of the body involved, the movement performed, and possibly the expression of the facial features (see *E*, pp. 30–34). In fact, by fully opening up the potential of a nonalphabetic language, Bébien’s approach moved away from a logocentric understanding of language.

The one point on which Bébien’s claims agreed with those of his predecessors was his characterization of the creation of a regular system of signs as a joint collaboration between teacher and pupils. In his view, as long as the teacher did not try to build sign language in analogy to speech, but instead in relation to connections between ideas, he would guide his pupil rightly and enhance the reflective quality of pupils not experienced enough, in this early stage of development, to come up with the best signs on their own. Sign language was natural

³⁴ Bébien 1817, p. 47.

³⁵ See Supalla and Clark, *Sign Language Archeology*, pp. 97–102, and Bernard Tervoort, “Esoteric Symbolism in the Communication Behavior of Young Deaf Children,” *American Annals of the Deaf* 106 (Nov. 1961): 436–80. The discussion about SEE signs and initialized signs soared in the United States from the late 1980s onward. These signs, used for speed, are present in contemporary ASL in the most common words, such as adding a *B* for *breakfast* to the sign for *eat*, an *L* for *lunch* and a *D* for *dinner*, instead of older signs associating the sign *eat* with the signs *morning*, *noon*, and *evening*. Around 1989, a presentation at Deaf Way advocated the necessity of cleaning up ASL of initialized signs in favor of older ASL signs, or new signs when no other signs were available. Vlogs posted on the internet regularly hosted objections to the use of specific signs and suggested new signs back and forth, leading to a risk of a constant evaluation of the choice of signs that could have destabilized rather than empowered signers. MJ Bienvenu, professor at Gallaudet, calmed the debate by reaffirming the power of ASL signs, initialized or not, and the need to accept all signs that have been in use, with the history they carry. I would like to thank Peggy Lott for her feedback on this topic and more generally for her comments on the draft of this article.

³⁶ I differ here from Jonathan Rée, who understands Bébien’s mimography in relation to the alphabet and to musical notation; see Rée, *I See a Voice: Deafness, Language and the Senses—A Philosophical History* (New York, 1999), pp. 297–306.

insofar as the signs “not only immediately record the idea and are inspired by nature itself, but are also produced without study or art” (*E*, p. 2). They were to present the main quality of an object so that the idea of this object would come to mind as soon as the sign was made. The coherence and aptness of each sign had to stand out or be revised. If de l’Épée had convinced Condillac of the quality of signs for their ability to convey grammatical value, Bébien was emancipating sign language by highlighting its analytical quality.

Mimographie ou Essai d’écriture propre à régulariser le langage des sourds-muets (Mimography, or, An Attempt at a Writing That Would Regularize the Language of Deaf-Mutes, 1825) includes three tables indicating the list of written signs available to represent gestures; there are indications for how their combinations yield bodily signs (figs. 1–3). The first table indicates the full range of signs corresponding to the movements available: their type, direction, speed, and accent. The second table figures the signs for the different body parts involved in their starting position (hands, face, tongue, chest, arms, shoulders, legs, and entire body), as well as the various signs available to characterize the facial features. The third lists a series of examples. One of them enables the reader to compare the speed and ease of Bébien’s method to that of methodical sign language: as he explains, his mimography can express “looking up with extreme pleasure” with one gestural sign represented by three written signs (one for the eye, one for the movement, and one for the facial expression), while methodical signs rely on thirteen to fourteen signs to express these five words and their syntax.

The parallels between William Stokoe’s and Bébien’s notational systems, as Gerald Shea has already noted, are striking.³⁷ Readers familiar with Stokoe’s system have probably recognized the three kinds of symbols that the famous linguist used for writing the signs of ASL. The Tab symbols, designating the part of the body concerned—such as the hand, the face, the ear, the forehead, or the trunk—equate to the first table; the Dez symbols, possibly also used as Tab symbols, describing the position of the body part—for example, in the case of a hand, compact, flat, spread, curved, contracted (Stokoe in most cases uses letters of the alphabet to render the position)—correspond to the second table; and the Sig symbols, indicating movement, have the same function as those in Bébien’s third table. Bébien also indicated the speed and extent of the movement. While my purpose here is not to make a comparative analysis with the developments of sign language linguistics in the early 1960s, one can wonder at the sudden success and scope of the use of such a notational system 140 years later in the establishment of sign language as a language of its own. Certainly, if Bébien did mention the need to build a dictionary, his first goal with such a system was to have it as a pedagogical instrument in class so that pupils would register signs for themselves, with

³⁷ See William C. Stokoe, Dorothy C. Casterline, Carl G. Croneberg, *A Dictionary of American Sign Language on Linguistic Principles* (1965; Silver Spring, Md., 1976).

their equivalents. Stokoe's intention was to publish a dictionary that would attest to the existence of a complete language at the user's disposal.

What, then, were the potential benefits of mimography in comparison with alphabetical language? Bébian developed an analytical writing by the intermediary of symbols that identify the parts of the body involved in a gesture (chest, leg, arm, head), the type of movement, and its direction. Writing is here a notation without any independence from signs. Looking at the tables, it seems that people who did not know sign language could, slowly but correctly, begin using it; they would be able to decipher the meanings of what was signed to them.

For Bébian, notation was also a way of observing sign language. Mimography allowed for its ordering and documentation and could also serve as a reference to identify and further establish conventions. Thanks to mimography, one could precisely trace the history of sign language as it varied and changed. For the teacher, there was no doubt about the superiority of gestural signs for their adequacy to ideas. But while the only value of alphabetical language comes from general consent, the value of gestural signs comes, as theorized by Bébian, from their pertinence: their capacity to designate, identify, and isolate the principal characteristic of an object or an idea. The fact that the teaching of signs had begun relatively recently made it easy to modify them and thereby endow them with a rigor that, according to Bébian, could not be found in words. With mimography, signs could be studied completely apart from social life, according to their analytic strength. Signs had to fit the concept; that was the only rule. Language could be evaluated and criticized, allowing the user to exercise their intellect by maintaining a distance in relation to expressive tools, and by judging the quality and authenticity of signs independent from the veracity or correctness of what was being said.

The point was to move from a moment of the mutability of signs to their fixation, and then toward their persistence and their spread, turning contextual signs into conventional signs that would not lose their natural dimension. It allowed for signs to be corrected and standardized. While phonetic writing had in part assumed priority and authority over speech, sign language notation was not to take the place of signs but to serve signs, record them, and allow them to be memorized. The fixation of signs through writing allowed for their perfection and granted them a new authority.

As such, Bébian reversed the widespread prejudice that signing was mere gesticulation to which one attributed meaning simply for lack of any other means of communication. With Bébian's work, signing becomes an act of intellection, even more than a social one. Gestural signs not only indicate an idea, they also explain and analyze it. More than simple appellations for things and ideas, signing actually *produced* the acquisition of

knowledge, since signs involve an understanding. Mimography, in effect, strengthened the epistemological function of sign language.

Writing sign language with mimography was the start of a revision that was to reimagine sign language and even lead to a questioning and revising of spoken language. In fact, in an 1828 letter to the journal *Constitutionnel*, Bébien called for a spelling revision as part of a movement suggesting the reduction of French varieties of writing the same sound.³⁸ He was envisioning both easier access to reading for the entire population, who could then be taught quickly, but also the chance to liberate language from corrupted forms of writing which overburden the exercise of reason.

Several teachers, in briefly mentioning Bébien's work, paid homage to his mimography without analyzing it. Most of them, however, and in particular the teachers at the Royal Institute for Deaf-Mutes, chose to dismiss it, or mentioned it only to criticize it, claiming that proceeding a priori it did not analyze the signs in use and remained ineffective.³⁹ Berthier also recounts that Bébien asked the board of directors of the Royal Institute to be given eight days to train pupils in mimography so that his method could be evaluated upon experience; the request was not granted. Following various quarrels and calumnies, Bébien was forced to leave the institute in 1821, not having remained long enough to establish his method. Despite a petition and a delegation to the king by Berthier and Alphonse Lenoir in 1830, when Charles X assumed the throne, he was never to return.⁴⁰ It was a testament to the tensions working against Bébien at the institute that physicians from outside reviewed his work the most favorably.⁴¹ Théodore Perrin, physician at the Institute for Deaf-Mutes in Lyon, recorded that Garay de Monglave and Ferdinand Berthier adopted it in their teaching at that institute.⁴² While congratulating Bébien for the system's potential use among deaf people, he nevertheless expressed his disapproval of it; the fact that deaf people would have to adopt the writing in use by the majority was a major drawback, he felt. Victor-

³⁸ Reproduced in Bébien, *Appel aux français* (Paris, Corréard jeune, 1829), pp. 105–10.

³⁹ See Édouard Morel, *Quatrième Circulaire de l'Institut Royal des Sourds-Muets* (Paris, 1836), p. 477, and Joseph-Marie de Gérando, *De l'Éducation des sourds-muets de naissance*, 2 vols. (Paris, 1827), 2:264–68.

⁴⁰ See Berthier and Alphonse Lenoir, “Les sourds-muets vont réclamer au Roi Louis-Philippe leur ci-devant instituteur Bébien,” *Sentinelle du Peuple* 3 (Nov. 1830): 1–2.

⁴¹ Presneau and Buton have retraced the tension between Degérando and Bébien: see Jean-René Presneau, *Signes et institutions des sourds* (Ceyzérieu, 1998), pp. 162–170; François Buton, “Ce qu’administrer veut dire. Gérando et l’éducation des sourds-muets (1814-1841),” in *Observer, normaliser et réformer la société du premier XIX^e siècle: Joseph-Marie de Gérando (1772-1842)*, ed. Jean-Luc Chappey, Carole Christen, and Igor Moullier (Rennes, 2014), pp. 143–156; and Florence Encrevé, “Gérando et les professeurs sourds de l’Institution royale des sourds-muets de Paris,” *Observer*, pp. 157–166.

⁴² See Théodore Perrin, *De l’écriture alphabétique dans ses rapports à l’intelligence du sourd-muet* (Lyon, 1837), p. 7.

François Bally, physician at the Hôpital de la Pitié and member of the higher committee of health, was fascinated by Bébien's achievements. He praised the method and presented a detailed description of it in his review. Insisting on the pragmatic qualities of the work, he believed Bébien had brought the use and writing of sign language to perfection.⁴³

Bébien's approach paved the way for other teachers to present such systems, especially Piroux, who, although he never devised a system as precise and structured as Bébien's, also struggled to develop sign language as an autonomous language with a writing of its own. He moved away from the principles of mimography to attempt, instead, an ideographic writing that fit the definition of ideographic language Bébien had offered: one that "establish[ed] the nature of each expression considered in its relationships to the other terms of the proposition."⁴⁴ As such, he was again venturing beyond a logocentric conception of language, instead attempting to fully develop its expressive qualities and to center it on the interlocutors.

After training as a teacher at the Royal Institute for Deaf-Mutes in Paris, Piroux opened an institute in Nancy in 1828. In his *Compte rendu de l'état actuel de l'Institut des Sourds-muets de Nancy* (Report of the Current State of the Institute for Deaf-Mutes in Nancy), he recounts how he used his time in Paris to conduct discussions with the teachers there.⁴⁵ His claims are at first very similar to those of Bébien. He writes that "ordinary people see writing as that which paints speech, which itself paints thought, while for deaf-mute people, writing paints sign language and sign language paints thought."⁴⁶ In the report, submitted two years after he founded the institute, Piroux explains how he had long sought a graphic system to facilitate the analysis of sign language and announces that he opted for "straight lines [to represent] people, curved lines for qualities, and broken lines for the relationship, adding to these lines a modification similar to the variations of the three fundamental things they each represent."⁴⁷ He initially left it at this most abstract statement, only to come back to it four years later in another publication about the organization and methods at his institute. He then described his use of arrows to indicate the movement determining the gesture, explaining that his intention was simply to offer a mnemonic tool to pupils; he abbreviated the sign to offer just its root.⁴⁸ He also recommended the use of

⁴³ See Victor-François Bally, "Mimographie, ou Essai d'écriture mimique, propre à régulariser le langage des sourds-muets, par M. Bébien," *Extrait de la Revue Encyclopédique* 87 (Mar. 1826): 1–8.

⁴⁴ Bébien, *Mimographie*, p. 9.

⁴⁵ See Joseph Piroux, *Compte rendu de l'état actuel de l'Institut des Sourds-muets de Nancy* (Nancy, 1830).

⁴⁶ *Ibid.*, p. 5.

⁴⁷ *Ibid.*, p. 9.

⁴⁸ See Joseph Piroux, *Organisation, situation et méthode de l'Institut des sourds-muets de Nancy* (Paris, 1834), p. 21.

iconographic and mimographic cards for children to learn words but unfortunately never published the set of cards he compiled for his courses.⁴⁹ Some examples of these cards were included in his deaf colleague Claude Joseph Richardin's publication of the same year, which reproduced a series of dactylogical tables and a table with the recto and verso of these cards (fig. 4).⁵⁰

Piroux called his graphic notes on sign language either mimography or tachymimography and offered very few examples of this initiative. Sign language communication was represented by capturing gestures with a few traits. The challenge of these graphic notations was to capture the movement without representing the body performing it, which makes them look almost like scores (fig. 5). The visual appearance of the writing is close to stenography, yet Piroux never provided any tables like the ones in stenography manuals, in which syllables are equated with various slants. And indeed, Piroux did not intend to base his tachymimography on phonology in a straightforward way. Piroux's graphic writing accounted for the expressive quality of sign language: drawing, with the pen on the page, the speed, the openings, the ruptures in thought. The *Quatrième Circulaire de l'Institut Royal des Sourds-Muets* (Fourth Newsletter of the Royal Institute for Deaf-Mutes), which was addressed to "all the institutions of Deaf-Mutes in Europe, America, and Asia," described it as a "mnemonic of gestures," limited to "grasp[ing] the salient character of each sign and fix[ing] it with a stroke."⁵¹ Of Bébien and Piroux's attempts, which the writer of the newsletter considered unsuccessful, it concluded that they should have taken the writing of Chinese as a model insofar as it groups characters for each idea; they ought to have first deconstructed all of the gestures into simple elementary gestures that could be drawn or written.

Several of the articles Piroux published in his journal *L'Ami des sourds-muets* (The Deaf-Mute's Friend), a publication addressed to deaf pupils and their parents, to teachers, and to members of the government, evoke his own mimography as the equivalent of alphabetical writing to put down gestural signs.⁵² In 1840, Piroux divided gestures and their signification according to five body parts, creating a hierarchy of the limbs involved. The first sphere, devoted to the primary needs and instincts, relies on the eyes, fingers, and hands; the second sphere, devoted to intelligence, relies on the hand and the facial features; the third, devoted to

⁴⁹ See *ibid.*, p. 26.

⁵⁰ See Claude Joseph Richardin, *Réflexions et citations sur l'état moral des sourds-muets sans instruction, sur les sourds-muets qu'on instruit* (Paris, 1834).

⁵¹ Institut Royale de Sourds-Muets de Paris, *Quatrième circulaire de l'Institut Royal des Sourds-Muets* (Paris, 1836), p. 477.

⁵² See Piroux, "Didactique, instrument de communication, parole artificielle et lecture sur les lèvres (suite)," *L'Ami des sourds-muets* 2 (Feb. 1839–1840): 49–56, 53; hereafter abbreviated "DI."

intelligence and feeling, relies on the facial features, the head, chest, and arms; the fourth, related to intelligence, feeling, and will, relies on the head, chest, arms, and legs; and the final sphere, which gathers all of the other needs and instincts, relies on the part below the chest, as well as the legs. For Piroux, gestural signs were directly in tune with a moral dimension and evolved along with a linguistic and moral education: “As their mind comes into use, and their heart rises, and their will gets prioritized, each of these spheres of their language participates with the others, and seem to start from a deeper point” (“DI,” p. 55). He insists that “to stop at the imitative gesture with people who are deaf from birth is thus sacrificing depth to form, reality to appearance, inside to outside” (“DI,” p. 55). Education was to foster the elevation of the body and the soul, which could be appreciated in the new bearing of the pupils, who learned to stand upright, facing their interlocutors, when signing their thoughts.

Keeping his distance from the usual conception of sign language as a natural language, Piroux instead advocates “artificial or precise gestures” that express thought following the line of speech.⁵³ He considers phonetic and signing languages to be complementary, stating: “The vocal apparatus absolutely needs the assistance of the mimicking apparatus, as it is not enough to *be* intellectually and morally, one must also *appear* to be so” (“DI,” pp. 53–54). He goes on to emphasize the need for phonetic and signing languages to stand in perfect equivalence, going so far as to conceive the existence of “mimic words,” “mimic syllables,” and “mimic vocals and consonants” and to consider alphabetic writing as a form of mimography (“DL,” p. 66). In his view, a mimic word is the compound of two or three postures, possibly with mimicking moves; as such, just like alphabetical words, they can be monosyllabic or disyllabic. Postures, positions, movements, and bending moves correspond to sounds and articulations. In a conception that may appear to many as paradoxical, Piroux conceives of vowels and consonants as the result of gestures and not independent of them. The origin of words lies, for him, in gestures; letters are simply the expression of postures. Letters as such become the reference of both spoken and signed language, as they are the direct expression of gestures. They guarantee that full expression exists through the connection between the mind and the body. As an example, he takes the word “*ami*” (friend):

A indicates that the arms open; *M* that they close; *I* that they press. In the partial or reduced sign (which is done with only one hand), *A* indicates that the hand opens; *M* that it closes; *I* that it presses. While pronouncing the word *AMI*, the mouth opens for

⁵³ Piroux, “Didactique, Lettres sur l’éducation des sourds-muets,” *L’Ami des sourds-muets* 2 (Mar. 1839): 66; hereafter abbreviated “DL.”

A; closes for *M*; tightens for *I*. The soul itself, in its own way, opens for *A*, attracts for *M*, and keeps for *I*.⁵⁴

Sign language and speech were thus no longer to be united on the basis of stage of articulation but on the physiological and moral demands the body was ready to express. He writes that “the signing apparatus and the vocal apparatus take the shape of the personality, and if the vocal apparatus gives a decided sound, it is because it cannot avoid functioning so under the influence of the signing action, which forces the chest to contract and air to escape” (“DL,” p. 70). He even established equivalence between the graphic, mimic, oral, and mental representations of a series of vowels and syllables. Here was his conceptualization of the letter *A*:

1. Graphic: sharp angle erected and bisected through its middle by a small horizontal line
2. Mimic: open arms, legs, and all other organs acting in harmony
3. Oral: open mouth, emptying lungs and contracted larynx
4. Mental: Ah!, friend, tree, to have, to act, avid, to wait (all words starting with the letter *a* in French) [“DL,” p. 71]

Thus, logos was no longer the main reference point for understanding speech, which was nothing more than the effect of gestural motions and respiration, just like sign language. Piroux’s holistic approach moved beyond identifying separate gestural signs, as Bébien had favored, and instead advocated a verticality, an openness of the body and the projection of a message forward.

In an article conceived in the form of a letter to the mother of a deaf-mute child, he included a figurative table in which he represented how to express “God is good” in sign language. Contrary to Bébien, Piroux saw the syntax of sign language as equivalent to that of spoken and written French—not because the inferiority of sign language would mean it had to follow French, but because their roots are the same (fig. 6). Insisting on the moral dimension of sign language, he located in the straightness of the body a mark of respect. He warned the mother against a purely imitative use of sign language and insisted on the necessity of the child locating the origin of any of his expressions in his own heart; he also wrote about the role of the facial features in attesting the communion of his body, heart, and

⁵⁴ Piroux, “Didactique, Lettres sur l’éducation des sourds-muets,” *L’Ami des sourds-muets* 2 (Apr. 1839): 85.

soul.⁵⁵ But it was left to the reader to decipher the lines he drew on the table as indications of the gestural signs. There were no explanations of the equivalence between these lines and the words. Were the curves of the lines specific to the direct expression of ideas? Was one supposed to decipher them without the mediation of words? The reader was left with only the gestural signs of this single sentence.

It was in his *Méthode de dactylogogie*, published in 1846 and reissued in a revised version in 1867, that Piroux provided the most details about his conception and also included illustrations of tachymimographic versions of several sentences,⁵⁶ such as “One should not be impolite,” “Oh, I am so grateful,” and “If you do wrong, you’ll be punished,” as well as the Lord’s Prayer (figs. 7–8).⁵⁷ He returned to the moral dimension of signs and their link to gestures of oratory, thus breaking with a tradition that saw in speech a civilized and intellectual version of language and in sign language a physical and inferior one. The point was now to “represent the organized intelligence, either with the head for thought, or with the hand for the signs, while a straight or curved line ending with an arrow would adequately figure the movement.”⁵⁸ By equating the head and the hand, he made the possibility of thinking in signs clear. The body, in its gestural ability, appeared as a stage for thought. Yet giving up any claim to provide a means to translate back and forth, tachymimography into words, Piroux stated that he was not claiming to present a serious attempt at devising a system for writing down sign language. While he had criticized the “extreme complexity” of Bébien’s mimography, his own attempt failed due to its lack of systematization. Tachymimography appears to have been a mirage.⁵⁹

An 1850 manuscript on his teaching methods with one of his pupils also included a series of sentences juxtaposed with the tachymimographic versions (figs. 9–10).⁶⁰ Their presence attests to Piroux’s continued interest in the expressive quality of written signs. His attempts to develop a writing specific to gestural signs, however, appears to have gotten no further, as, starting in the 1840s, he himself favored the use of dactylogogie.⁶¹

⁵⁵ Piroux, “Didactique, Lettres sur l’éducation des sourds-muets, huitième lettre” *L’Ami des sourds-muets* 4 (Jan–Feb. 1841): 45.

⁵⁶ See Piroux, *Méthode de Dactylogogie de lecture et d’écriture à l’usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde* (Paris, 1846), p. 55.

⁵⁷ *Ibid.*, pp. 56–57.

⁵⁸ *Ibid.*, p. 63.

⁵⁹ Piroux, *Organisation*, p. 21.

⁶⁰ See manuscript Piroux, *Notes fournies par Mr. Piroux sur les moyens de développer l’audition et la parole chez Albert Scrive* (Paris, 1850).

⁶¹ On the use and widely differing conceptions of *dactylogogie*, see Arnaud, “Fingerspelling and the Appropriation of Language: The Shifting Stakes of a Practice of Signs,” *Sign Language Studies* 19 (Summer 2019): 565–605.

Piroux tried to recover an original relationship to the language, building upon a natural relationship between the linguistic sign and the graphic sign. To this aim, he explored the potential relationship between the visual, the linguistic, the physiological, and the psychological. His ideographic writing ascribed all importance to the expansion of movement and its directions: verticality, horizontality, and width. Through the creation of a notational form, he developed a metaphysics of signing while positing that gestural signs become the instrument of thought, the tool for the transformation of language and simultaneously a tool for self-education. Individuals, he believed, evolve along with the development of their expression, and what this entails for thinking cannot stand apart from language as they develop its forms and scope. People grow in their language, in its always more perfect expression. The writing allows him to emphasize the scope of the relationship between people and language.

Developing an opposite approach to that of Bébien, Piroux was interested not in laying out the signs of a series of nouns but in the articulation between the signs—strictly speaking, what turns a series of signs into language, the expression they convey. By avoiding any classification of signs, Piroux favored an individual approach to language. The writing of sign language allowed for speculation about how much movement enables one to express oneself while following acquired conventional forms.

For Piroux, coordination involved more than syntactical or any other linguistic demands; it engaged a psychological and a moral dimension. The body does not remain foreign to the language it signs, and parts of the body are not to be individualized as those of a puppet. The body signs and is affected by signing. One educates oneself through the expression and reaches full humanity in signing. Education occurs in the search for the correct expression, which results in growth and transcendence. The writing of sign language emphasizes how much gestural signs are to function bound together, in a cohesion necessary to meaning. Thus, he lays the emphasis on a level usually taken for granted, such as the position of the interlocutor in relation to other people. With Piroux, writing captures expression, intention, attitude toward the other and a form of respect and of authority.

A couple of other attempts emerged around this time, yet they are even more difficult to reconstitute for lack of sources. Jean Rambosson, director of the Royal Institute of Deaf-Mutes in Chambéry, famous for his publications aimed at popularizing the natural sciences, joined Bébien and Piroux in advocating for the creation of a form of writing specific to signs, but the remaining traces of this project are limited to the title he gave to one of his works.⁶² Valade, teacher at the now Imperial Institute for Deaf-Mutes in Paris, was the next to try a

⁶² See Jean Rambosson, *Langue Universelle, Langage mimique mimé et écrit, développement philosophique et pratique* (Paris, 1853).

new system. *Etudes sur la lexicologie et la grammaire du langage naturel des signes* (Studies on the Lexicology and Grammar of Natural Sign Language, 1854) was the first to offer a grammar specific to sign language, newly articulating in the introduction the singularity afforded by sign language and paving the way for a new writing system.⁶³

Quoting Bébien in the epigraph to his work, he insisted on the necessity of formalizing sign language. Valade firmly believed that drawing would be necessary to supplement speech, since descriptions of signs could hardly convey the necessary information on their own; in his view, Bébien's mimography failed because it tried to be as quick as speech. The type of writing he resorted to, instead, was schematic drawings indicating the position of the body. He called these figures, meant to delineate the two defining features of the sign—the attitude and the action, or the position of the body part and the movement performed—*symgraphie* (symmography), and he suggested dividing the height of the body into eight parts to identify the movements. Included were the disposition of the body; the physiognomy; the horizontal, vertical, or oblique direction of the movement; the height of the movement and its distance from the body; the range of the gesture; and its speed and duration. Drawing the initial and final phases—and possibly intermediary phases too—involved in the completion of a gesture was meant to fully illustrate each sign. Yet Valade provided neither a table to classify the gestures nor a bilingual text, leaving us to doubt that symmography ever developed into anything more than just a project and leaving the question of the representation of gestural signs, once more, fully open.

While historians and linguists agree that the Milan Congress represented a radical break in the use of sign language, very little research has been done on the different sign language systems in use before it, to the point that sign language linguists commonly date the start of the conceptualization of sign languages as proper languages to Stokoe's work.⁶⁴ My intention in this article is to suggest the richness of conceptualization that was taking place in nineteenth-century France. Throughout the works I have described here, sign language was both transformed and endowed with radically different functions. De l'Épée adopted a pragmatic conception of methodical signs, considering them first and foremost as a means of

⁶³ See Valade, *Etudes sur la lexicologie et la grammaire du langage naturel des signes* (Paris, 1854). On Valade's analysis of syntax, see Ree, *I See a Voice*, pp. 303–08; Arnaud, "The Order of Signs: Perspectives on the Relationship between Language and Thought during the First Century of Widespread Sign Language Teaching, 1760-1880," *History of Education Quarterly* 60 no. 4 (Fall 2020).

⁶⁴ Such a statement can only call for nuance in light of the sociolinguistic work of Françoise Bonnal-Vergès, Cuxac, Delaporte, and Fischer; see especially Bonnal-Vergès, "Langue des Signes Française: des lexiques des XVIII^e et XIX^e siècles à la dictionnaire du XXI^e siècle," *Glottopol* 7 (Jan. 2006): 160–89; Cuxac, "Présentation" *La Langue des signes française: histoire et linguistique*, *Surdités* 5, ed. Cuxac (2004): 11–15; Delaporte and Renard, *Aux Origines de la langue des signes française* (Paris, 2002); and Fischer, "Language of Action," pp. 429–55.

acquiring mainstream language; he also used them to transform the image of deaf people in society. The innovations he worked for were both pedagogical and social, providing access to knowledge, both worldly and religious, to children assumed to not have a future. Desloges saw sign language as an autonomous means of communication among deaf people and used his defense of de l'Épée to affirm the power of those who were believed to have no access to knowledge. While de l'Épée opened society's door to deaf people, Bébien laid the foundation for establishing their full intellectual emancipation through language, creating a method of writing with which pupils were able to develop their own language. Aiming for a revolution both pedagogical and linguistic, he positioned sign language as the first language for deaf people and a step toward bilingualism. More than anything, with mimography he provided the core method for the invention and transmission of a language beyond all logocentric dimensions. As for Piroux, he was aiming at a pedagogical and moral transformation, engaging the body in its entirety. Tachymimography was to convey the expression of a way to position oneself toward others and toward God and to inscribe respect, obedience, and reverence into any conversation. Postures and movements were to personify a person's thoughts as much as they were to convey specific messages—something like how gestures complement spoken words.⁶⁵ Thus, sign language was to facilitate access to a dimension of full communication, in which the body, the mind, and the soul were in unison. Writing would not simply record a voice, as text does; it was itself a space of intellectual analysis. More than a message, it was to transmit a way of relating to oneself and the world and could not simply be reduced to linguistic skills and rules.

Throughout all these writings, the potential inherent in signs and sign language kept changing, challenging both hearing and deaf people's relationship to language. Examining them yields rich insights into attempts to imagine a nonphonocentric approach to language. Language was no longer limited to communication but radically took on the production of thought. In fact, with these teachers and with Desloges, sign language became an instrument of knowledge and analysis of the world. If the etymological grounds de l'Épée gave to methodical signs avoided a new epistemological approach, for Desloges, Bébien, and Piroux, signing meant appropriating the world by creating signs directly related to sensations and

⁶⁵ Since the publication of Aaron V. Cicourel's article in 1974, gesture studies have surged over the last twenty years to analyze the role of gesture and distinguish especially the role of gestures and sign in sign language. See especially Aaron V. Cicourel, "Gestural Sign Language and the Study of Nonverbal Communication," *Sign Language Studies* 4 (1974): 35–76; Adam Kendon, "Gesticulation and Speech: Two Aspects of the Process of Utterance" in *Relationship of verbal and nonverbal communication*, ed. Mary R. Key (Berlin, 1980), pp. 207–28; David McNeill, *Hand and Mind: What Gestures Reveal about Thought* (Chicago, 1992); and Diane Brentari and Goldin-Meadow "Gesture, Sign, and Language: The Coming of Age of Sign Language and Gesture Studies," *Brain and Behavioral Sciences* 40 (Jan. 2017): 1–82.

ideas. Whereas methodical signs strictly constituted a new form of presentation of written French, the writing of natural signs opened the potential for a new form of pedagogy. The challenge lay in opening up an analytic approach to signs while retaining their natural character, so that their formal features could spread according to agreed-upon conventions. The convenience of the phonocentric approach could then appear to be limited, while sign language reintroduced the relationship between users and their language. Spoken French was challenged by its users on grounds of pronunciation and spelling only; it remained invisible to most of its users. Sign language, however, appeared fully in its role as an intermediary. By posing new epistemological grounds for language, as marginalized as they remained from the canonical corpus, the invention of these writings constituted some of the most radical linguistic approaches of the nineteenth century.

While many saw sign language as constantly changing and imprecise, questioning its reliability, such notational systems challenged such claims. The meaning and the connotation of a word could change according to the context, but it is the form of the (gestural) sign that would change, varying with the exact degree of the idea involved. The speed, width, and height of the sign might change; the writing could keep track of the variations when the movement had to be adapted to give the sign its proper scope. Whereas a word might lose precision with the number of connotations it carries, a sign, instead, gains in specificity as it changes along with the idea, in order to express what the signer aims to communicate.

It was foremost at the level of the authenticity and integrity of signs that the notational system allowed for the differences between vocal language and sign language to stand out. The power of sign language as a natural language was to offer not only a mode of expression but a mode of learning and conceptualizing. Signs were not meant to function in a linguistic space locked into itself but to involve knowledge of things and of the self. With Bébien's work, signs provide and develop an understanding of ideas, and with Piroux's, they place responsibility upon interlocutors in terms of what they stand for and what they say.

While filming sign language, for example in vlogs, has been seen by some as the equivalent of the invention of the printing press for sign language,⁶⁶ Bébien's and Piroux's attempts to find a proper notation for sign language had already led them to a whole new level of questioning the scope of signs and their function in development.⁶⁷ By being limited to providing a repertoire of signs, such a notation enabled the positioning of sign language with critical distance, which enforced its specificity and its potentials. Beyond the standardization that could have taken place through the use of Bébien's system, one can wonder how much

⁶⁶ See Krentz, "The Camera as Printing Press: How Film has Influenced ASL Literature."

⁶⁷ Contemporary attempts at creating a writing for sign language include Valerie Sutton's method: see www.omniglot.com. See also Robert Arnold's si5s, web.archive.org/web/20160729205559/http://www.si5s.org

the adoption of the notation of sign language might have changed nineteenth-century uses and conceptions of sign language, and signs themselves; the accepted view of sign language as contextual could have been challenged by the conventions set by writing.

[fl]FIGURE 1. Roch-Ambroise Bébien, *Mimographie ou Essai d'écriture propre à régulariser le langage des sourds-muets* (Paris, 1825), Institut Baguer.

[fl]FIGURE 2. Roch-Ambroise Bébien, *Mimographie ou Essai d'écriture propre à régulariser le langage des sourds-muets* (Paris, 1825), Institut Baguer

[fl]FIGURE 3. Roch-Ambroise Bébien, *Mimographie ou Essai d'écriture propre à régulariser le langage des sourds-muets* (Paris, 1825), Institut Baguer

[fl]FIGURE 4. Claude Joseph Richardin, *Réflexions et citations sur l'état moral des sourds-muets sans instruction, sur les sourds-muets qu'on instruit* (Paris, 1834). Institut Baguer.

[fl]FIGURE 5. Joseph Piroux, *Ami des Sourds-Muets*, 1841, Bibliothèque Municipale de Dijon

[fl]FIGURE 6. Joseph Piroux, *Méthode de Dactylologie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde* (Paris, 1846) © Bibliothèque de l'Académie nationale de médecine, Paris

[fl]FIGURE 7. Joseph Piroux, *Méthode de Dactylologie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde* (Paris, 1846) © Bibliothèque de l'Académie nationale de médecine, Paris

[fl]FIGURE 8. Joseph Piroux, *Méthode de Dactylologie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde* (Paris, 1846) © Bibliothèque de l'Académie nationale de médecine, Paris

[fl]FIGURE 9. Joseph Piroux, Manuscript, Institut Baguer, Asnières.

[fl]FIGURE 10. Joseph Piroux, Manuscript, Institut Baguer, Asnières.