



THE TYPOGRAPHIC INCEPTION  
OF THE CHEROKEE SYLLABARY



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## THE TYPOGRAPHIC INCEPTION OF THE CHEROKEE SYLLABARY

The adaptation of most writing systems to print has generally been one of mimesis: typography attempting to replicate the visual appearance of a specific handwritten form of a given writing system. The typography of Latin-script incunabula emulated the Carolingian hand with roman, and the Italian scribal style with italic; Greek typography—from Aldus Manutius on—attempted to replicate the complex Byzantine hand; Chinese and Japanese typography were initially based on their long calligraphic tradition; and so on...

Cherokee typography did not follow that process. In fact, the Cherokee syllabary itself—unlike most writing systems—did not slowly evolve in written form to then eventually be adapted to print. It was invented single-handedly by a Cherokee man named Sequoyah at the beginning of the nineteenth century. In a reversal of the usual process, Sequoyah explicitly developed the syllabary in a shape which would make it 'suitable for print', and deliberately took inspiration from Latin typography for the design of its characters.

The actual translation of his syllabary into print further involved typography in a complex back and forth process involving a number of people's perceptions of typographic shapes and technical constraints to establish its definitive forms.

D	a		R	e		T	i
Ꮝ	ga	Ꮕ	ka	Ꮚ	ge	Ꮝ	gi
Ꮘ	ha		Ꮛ	he		Ꮘ	hi
Ꮚ	la		Ꮜ	le		Ꮜ	li
Ꮝ	ma		Ꮝ	me		Ꮝ	mi
Ꮘ	na	Ꮘ	hna	Ꮚ	ne	Ꮘ	ni
Ꮚ	qua	Ꮚ	nah	Ꮚ	que	Ꮚ	qui
Ꮕ	s	Ꮝ	a	Ꮝ	se	Ꮝ	si
Ꮜ	da	Ꮚ	ga	Ꮝ	de	Ꮝ	di
Ꮘ	dla	Ꮜ	ha	Ꮜ	tle	Ꮜ	tli
Ꮝ	tsa			Ꮝ	tse	Ꮝ	tsi
Ꮜ	wa			Ꮝ	we	Ꮝ	wi
Ꮕ	ya			Ꮝ	ye	Ꮝ	yi
Ꮝ	o			Ꮝ	u	Ꮝ	v
Ꮝ	go			Ꮝ	gu	Ꮝ	gv
Ꮝ	ho			Ꮝ	hu	Ꮝ	hv
Ꮝ	lo			Ꮝ	lu	Ꮝ	lv
Ꮝ	mo			Ꮝ	mu		
Ꮝ	no			Ꮝ	nu	Ꮝ	nv
Ꮝ	quo			Ꮝ	quu	Ꮝ	quv
Ꮝ	so			Ꮝ	su	Ꮝ	sv
Ꮝ	do			Ꮝ	du	Ꮝ	dv
Ꮝ	tlo			Ꮝ	tlu	Ꮝ	tlv
Ꮝ	tso			Ꮝ	tsu	Ꮝ	tsv
Ꮝ	wo			Ꮝ	wu	Ꮝ	wv
Ꮝ	yo			Ꮝ	yu	Ꮝ	yv

Figure 1 The Cherokee syllabary, with the common phonetic transcription of each character.

“U-ne-tla-nv-hi u-we-tsi “I-ga-gu-yv-he-i, “Hna-quo tso-sv wi-yu-lo-se, “I-ga-gu-yv-ho-nv.”	“E-la-ni-gv dv-li-s-qua-di “Ga-lu-tsv-ha i-yu; “Ni-ga-dv da-ye-di-go-i “A-ni e-la-ni-gv.”
“A-se-no i-u-ne-tse-i “I-yu-no du-le-nv, ““Ta-li-ne dv-tsi-lu-tsi-li,’ “U-dv-ne u-ne-tsv.”	“U-na-da-nv-ti a-ne-hv “Do-dv-ya-nv-hi-li, “Tso-sv hna-quo ni-go-hi-lv “Do-hi wa-ne-he-s-di.”

Figure 2 Romanized Cherokee. The use of hyphens to separate syllables is usually limited to dictionaries and language books.



## THE SYLLABARY

The Cherokee syllabary is a writing system specific to the language of Cherokee Native Americans [Figure 1]. It consists of eighty-five characters,<sup>1</sup> written from left to right, top to bottom. Each represents a syllable, with one notable exception: Ꭰ, which has the phonetic value of [s]. This is a clever deviation from the system, as is explained in the inaugural issue of the *Cherokee Phoenix*,<sup>2</sup> a bilingual English/Cherokee weekly newspaper published from 1828 to 1834:

‘Each character expresses a syllable by itself, with the exception of Ꭰ, which has precisely the power of the Roman s, and is never used but as a prefix<sup>3</sup> to a syllable beginning with the sound of g, q, or d, unless, occasionally, before Ꭱ, w, Ꭲ, and Ꭳ. To dispense with this character, and substitute in its stead a separate character for each of its combinations, would require the addition of 17 new characters. This would make the whole number amount to 102, and would render the alphabet entirely syllabic.’

Capitalisation is generally not used.<sup>4</sup> When it is, it is for aesthetic effect and bears no semantic value; therefore fonts with capital and lowercase-sized characters are almost non-existent.

Numbers are written using Arabic numerals or are spelled out in the syllabic characters. Punctuation is marked by using the same characters as in the Latin script.

Nowadays, the syllabary is no longer the primary method used for writing the Cherokee language, having been replaced in that function by a Romanized system [Figure 2] generally referred to as ‘phonetic’ by most Cherokee teachers.<sup>5</sup>

However, for almost a century, the syllabary represented the main—and for Cherokees, the sole—vehicle of the written Cherokee language.

## THE INVENTION OF THE SYLLABARY

As mentioned above, unlike most writing systems, the Cherokee syllabary did not slowly evolve over time, but was single-handedly created by a Cherokee man named Sequoyah.

Sequoyah, also known by his English name George Guess—or Guyst, Guist, or Gist, depending on the source—is said to have been illiterate.<sup>6</sup> In 1809,<sup>7</sup> after seeing how the English language could be transmitted through books and manuscripts, which he famously referred to as ‘talking leaves’,<sup>8</sup> he set out to develop a writing system for the Cherokee language. He worked on a pictographic, then on a logographic writing system<sup>9</sup> until 1821, when he migrated to a syllabic system which he then developed in a matter of weeks.

No record remains of the early pictographic and logographic systems developed by Sequoyah, which were reportedly lost in the fire of his cabin

1. The number of characters was originally 86, but one character was abandoned because it was concluded that the sound it represented was too similar to the sound Ꭰ. Boudinot in *Cherokee Phoenix*, vol. 1, no. 23, 6, August 1828.

2. Worcester in *Cherokee Phoenix*, vol. 1, no. 1, 21 February 1828, p. 1.

3. Onomatopoeic words in Cherokee magical rituals sometimes do terminate with the sound s, but this was unknown to Samuel Worcester, author of the comment. Kilpatrick & Kilpatrick. *New Echota Letters*, p. 9.

4. The use of “capital” characters (identical in form to the standard characters but scaled up) seems to have been limited almost exclusively to religious books published in the second part of the nineteenth century; capital characters were used essentially in the same way as in the Latin script. This is in part explained by the technical possibility of doing so arising only in the late 1850s when a second Cherokee font of a larger size (but on the same body) was cut.

In the nineteenth century, this practice of capitalisation seems to have never found its way into lay publications or written Cherokee, and has since virtually disappeared.

5. Bender, Margaret. *Signs of Cherokee Culture*, p. 56.

6. Anonymous. *Missionary Herald*, vol. 22 no. 2, p. 47.

7. Davis. *The Life and Work of Sequoyah*, p. 159.

8. *ibid*

9. Bender, Margaret. *Signs of Cherokee Culture*, p. 25.

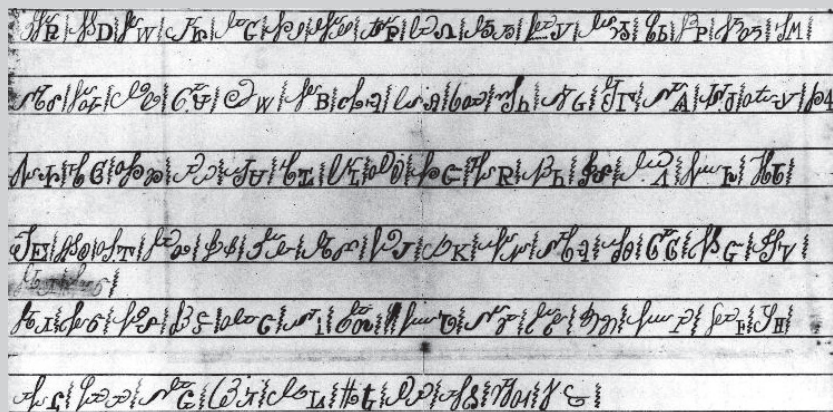


Figure 3 Undated drawing of the syllabary in both forms, attributed to Sequoyah.

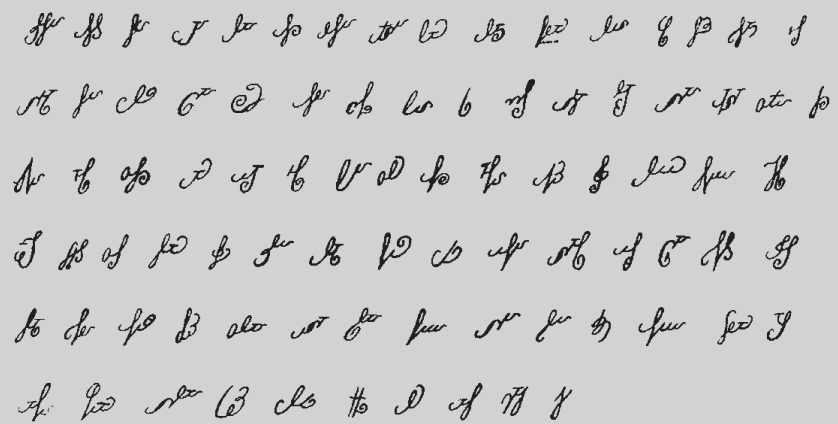


Figure 4 Cherokee cursive syllabic characters extracted from figure 3.

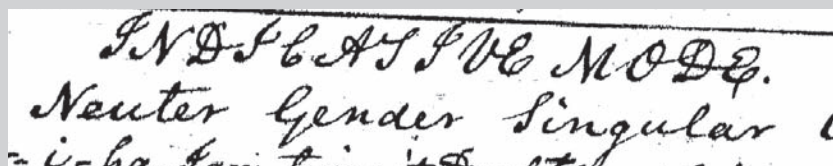


Figure 6 Handwriting of Samuel Worcester.

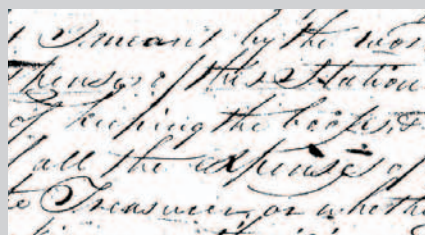


Figure 7 Handwriting of Samuel Worcester.

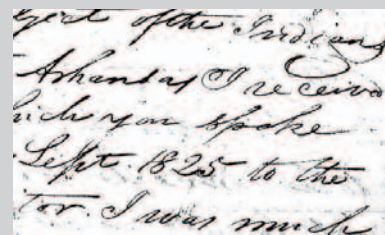


Figure 8 Handwriting of Daniel Brown.

in the 1810s. There are, however, a few documents drawn by Sequoyah himself which display the initial shapes of his syllabic system.

The system consisted of eighty-six syllabic characters [Figure 4] and a numeric notation system of thirty-one characters [Figure 5], extracted from Appendix 1]. The characters had a strongly cursive structure, similar to the latin handwriting of the time [Figures 6, 7 and 8]. The syllabic characters had the same phonetic values as those of the current syllabary [Figure 1], with the addition of an extra one which was subsequently dropped as it was considered redundant, being not distinct enough in phonetic value from two other characters.

The numeric system consisted of:

- Nineteen individual characters with a numeral value of 1 to 19.
- Nine characters representing the values 20 to 100, in increments of ten.
- Two groups of three characters each, the first one representing ‘thousand’ and the second having the value of ‘million’.
- One last character which served to identify the end of a number.

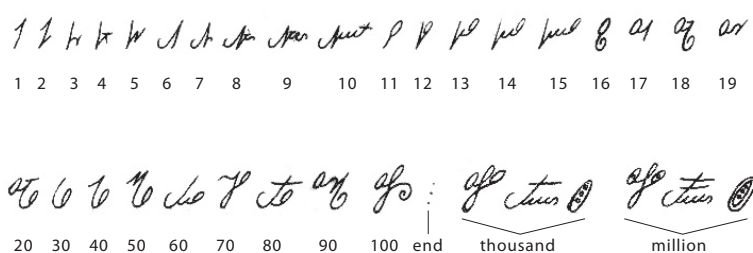


Figure 5 Numeric character system.

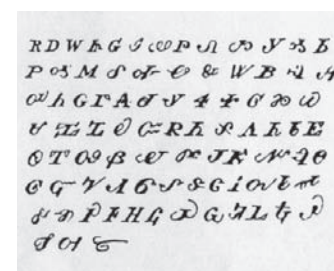
However, Sequoyah did not settle for these cursive characters for his syllabary. In a process which will be detailed later, Sequoyah decided to adapt his syllabary into ‘characters for print’, radically modifying in the process most of the cursive characters to give them the shapes which became the model for the syllabary as it exists today.

In 1821, Sequoyah presented the syllabary to the Cherokee Council; it is unclear whether he presented the cursive characters or the characters for print, or both. Of the two forms of his syllabary, he is reported to have explained that the new ones ‘would do for print and the old one [cursive] for writing.’<sup>10</sup>

After an initial period of rejection—some sources even report that he was accused of sorcery<sup>11</sup>—the syllabary began to generate massive interest, and within a matter of a few months the majority of the Cherokee population knew how to read and write in Sequoyah’s syllabic characters. The numeral system however never was adopted.

If the cursive syllabic characters were ever used, no document written in that script, apart from Sequoyah’s chart, seems to have survived. By 1825—the date of the earliest surviving sample of the syllabary [Figure 8]<sup>12</sup>—the Cherokee language was being written in Sequoyah’s ‘characters for print’.

Figure 9 The Hicks Syllabary, was ‘enclosed in a latter from Charles Renatus Hicks, second principal chief of the Cherokee Nation, to Thomas L. McKenney, head of the Office of the Indian Affairs in the War Department on 14 January 1825.’ Willard, W. and Sarbaugh, *The Early History of the Cherokee Syllabary*, p.85



10. Bass. *Talking Leaves*, no pagination

11. Perdue. *Cherokee Editor*, p.69

12. Walker, W. & Sarbaugh. *The Early History of the Cherokee Syllabary*, p.85



A	B	C	D

Figure 10 Cursive characters and their equivalent characters for print, extracted from figure 3. The new characters in columns A remain essentially cursive; those in B-D take new and more typographic shapes.



Figure 11 Character drawn by Sequoyah.

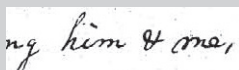


Figure 12 Ampersand in a letter by Samuel Worcester.

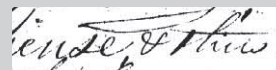


Figure 13 Ampersand in a letter by Reverend Thompson.

## SEQUOYAH'S CHARACTERS FOR PRINT

Sequoyah took his inspiration from the Latin alphabet to adapt his syllabary into characters for print. John Howard Payne, a US Consular official, reporting on the invention of the syllabary related that Sequoyah was 'struck with the Bible Book [and studied it] for characters to make use of in print. He copied out some of the [Latin] letters...'.<sup>13</sup> Various other sources, more or less plausibly, cite other inspirations: an English spelling-book,<sup>14</sup> an unspecified old English book,<sup>15</sup> the McGuffey Reader, and a Greek text.<sup>16</sup>

When looking at Sequoyah's drawings, we can observe that the new characters he created are not uniformly modelled on Latin typographic forms. They display varying degrees of similarity with Latin characters, and varying degrees of adaptation for print. Some characters remain cursive; some are directly modelled on Latin typographic characters; and some are hybrids of both vocabularies, with the majority of them leaning more toward typographic structures.

In Figure 10, the characters in column A are direct adaptations or simplifications of their shapes from the old syllabary and thus remain essentially cursive, even as characters for print.

No mention is made of Sequoyah having consulted handwritten documents in the design of either the cursive syllabary or the new one. But as mentioned previously, his cursive characters display formal characteristics not unlike the contemporary handwriting style of the time, and may have been inspired by it. [Figures 6, 7 and 8]

However the characters of the cursive syllabary are cohesive as a writing system, and not similar enough to the Latin cursive letters to make this supposition plausible on its own; they might in fact simply be the result of the characters of both scripts being written with the same tool. But one character in the new syllabary makes it probable that Sequoyah at least knew of Latin cursive handwriting: the new shape of ꞥ displays a form reminiscent of a common ampersand, but rotated counterclockwise [Figure 11]. It is indeed an ampersand—in a form which was never translated into type<sup>17</sup> but was very common in handwriting in Sequoyah's time, and was notably used by most of the missionaries attached to the American Board of Commissioners for Foreign Missions (ABCFM) living in the Cherokee community. [Figures 12 and 13]

The other characters, displayed in columns B to D, depart in their new shapes from their old cursive counterparts. As we progress through the columns, the characters become increasingly similar in structure to Latin characters, and the last characters appear to be taken directly from the typographic shapes of letters of the Latin alphabet.<sup>18</sup> But Sequoyah's adaptation of Latin shapes to his syllabary was not a simple exercise in mimicry; his interpretation of the Latin characters is a very interesting and idiosyncratic one.

Since he was not familiar with the Latin alphabet, he had no notion of the 'generic shapes' of the characters: he did not perceive the printed characters as stylized renderings of the fundamental structure of Latin letters according to a particular typographic style. He interpreted the

13. Bass. *Talking Leaves*, (no pagination)

14. Anonymous in *The Missionary Herald*, Volume 22, Number 2, February 1826, p.48

15. Davis. *The Life and Work of Sequoyah*, p.160

16. Ehle. *Trail of Tears*, p.153. This source does not provide any reference for making such a precise affirmation. Additionally, while at least one Greek document was present in the Cherokee community at the time—a Cherokee man called David Brown having translated in 1825 his manuscript Cherokee New Testament directly from an original Greek text (Bass. *Talking Leaves*, no pagination and Davis, *The Life and Work of Sequoyah*, p.166)—it seems unlikely that Sequoyah would have had access to it and in the event that he did, it does not seem to have had a significant impact on the design of his syllabary, since very few characters can be interpreted as being specifically inspired from the Greek alphabet.

17. The eminent type designer Matthew Carter was first in noting this particular shape of ampersand on eighteenth century tombstones in New England. He confirmed to me that it never occurred in print.

18. Another character, ꞥ is intriguingly whimsical. It appears to be based on musical notation; in the old syllabary it takes the shape of a *treble clef*, and in the new one, it is replaced by a character very similar to a *dal segno*. He might have seen these characters either in written or printed form.

Taken individually, one could consider the similarities between each of these characters and Latin musical notation a coincidence, but their use for the same syllable seems to validate the parallel.

A a	<i>A a</i>	long, as in <i>ah</i> ; short (ă) as in the first, or unaccented syllable of <i>aha</i> '.
Ā ā	<i>Ā ā</i>	long, as in <i>all</i> ; short (ǎ) as in <i>although</i> . See <i>Remarks</i> , p. 13.
D d	<i>D d</i>	as in <i>English</i> , nearly. See <i>Remarks</i> , p. 13.
E e	<i>E e</i>	long, as the first <i>e</i> in <i>where</i> , or like <i>a</i> in <i>made</i> ; short (ĕ) as in <i>when</i> , <i>met</i> .
G g	<i>G g</i>	always hard, as in <i>gate</i> , <i>get</i> , <i>give</i> , &c.
H h	<i>H h</i>	as in <i>English</i> . See <i>Remarks</i> , p. 13.
I i	<i>I i</i>	long, as in <i>antique</i> , or like <i>ee</i> ; short (ĭ) as in <i>antick</i> .
K k	<i>K k</i>	as in <i>English</i> . See <i>Remarks</i> , p. 13.
L l	<i>L l</i>	as in <i>English</i> .
M m	<i>M m</i>	as in <i>English</i> .
N n	<i>N n</i>	as in <i>English</i> .
O o	<i>O o</i>	long, as in <i>tone</i> , <i>mole</i> ; short (ō) as in <i>intonate</i> , <i>immolate</i> .
S s	<i>S s</i>	as in <i>English</i> at the beginning of words.
T t	<i>T t</i>	as in <i>English</i> . See <i>Remarks</i> , p. 14.
U u	<i>U u</i>	long, as <i>u</i> in <i>rule</i> , or <i>oo</i> in <i>pool</i> ; short (ŭ) as <i>u</i> in <i>bull</i> , or <i>oo</i> in <i>wool</i> .
Ū ū	<i>Ū ū</i>	as in <i>dumb</i> ; short (ŭ) as in <i>undo</i> . See <i>Remarks</i> , p. 14.
Ų ų	<i>Ų ų</i>	nasal, as in pronouncing the first part of the words <i>uncle</i> , <i>hunger</i> , &c. See <i>Remarks</i> , p. 14.
W w	<i>W w</i>	as in <i>English</i> .
Y y	<i>Y y</i>	as in <i>English</i> .

Figure 20 Romanized Cherokee developed by John Pickering.



typographic aspects of the letters in their printed forms—such as serifs and ball terminals—as structural parts of the characters rather than variable stylistic elements.

Consequently, Sequoyah used these typographic features as tools for creating his characters—serifs and ball terminals went from being merely typographic features to become inherent parts of a character’s structure. In some cases, these typographic features even became the sole structural elements used to differentiate otherwise similar characters:

- The characters **R** and **Ṛ**, both based on the Latin R, differ only in the elaboration of the tip of their leg.[Figure 14]
- The characters **Ÿ** and **Ṛ** are both represented by a shape similar to the Latin lowercase y, but are distinguished from each other solely by their different use of serifs and ball terminal.[Figure 15]
- Only the top serif differentiates **Ḥ** and **ḥ**. [Figure 16]
- **W** and **w** vary slightly in structure [Figure 17], but to a user of the Latin script look like two design variations of the same Latin character.
- The characters **G**, **C**, **Ḡ**, **Ḣ**, **Ḥ**, **Ḧ** and the now obsolete **G** are all based on a shape similar to the Latin G and are essentially distinguished from each other by serif and ball terminals which are distributed in a manner not subject to the rules of Latin typography.[Figure 18]

This idiosyncratic use of serif-derived elements can also be observed in other characters. This is unmistakable in the character **Ṛ** [Figure 19], where the stroke terminals are deliberately constructed as dissimilar graphic structures—one serif-like and one beak-like, where someone accustomed to serif distribution in the Latin script would expect to see symmetrical beaks.

## A PARALLEL WRITING SYSTEM

During the early 1820s, the same period in which Sequoyah was developing his syllabary, another writing system for the Cherokee language was being developed in Boston by the linguist John Pickering.

An alphabetic system adapted from the Latin alphabet [Figure 20], it consisted of the Latin letters a,d,e,g,h,i,k,l,m,n,o,s,t,u,w,y—used in upper and lowercase forms, with italics—to which set were added three new characters created specifically for this Cherokee writing system:

- A character based on the lowercase a, with the stem extending up to the x-height and the top stroke looping back down to join the lower bowl. In its uppercase, an macron-like horizontal stroke intersects A at its apex. [Figure 21]
- A character resembling an inverted Greek capital omega, both in lowercase and uppercase. [Figure 22]
- A character identical to the preceding one, with the addition of a cedilla mark. [Figure 23]



Figure 14



Figure 15

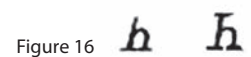


Figure 16



Figure 17



Figure 18



Figure 19



Figure 21



Figure 22

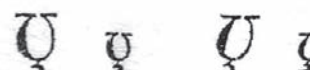


Figure 23



To this basic repertoire, four marks—identical in shape to the Latin apostrophe, cedilla, dieresis and breve—were used as diacritics to modify the phonetic value of the characters;<sup>19</sup> [ ' ] to mark a glottal stop, [ , ] for nasalisation, [ ¨ ] to dissolve a diphthong, [ ˘ ] to note shortened vowels. Another diacritic, similar to the Latin acute, was used above or following a vowel to denote emphasis on a syllable. [Figure 24]

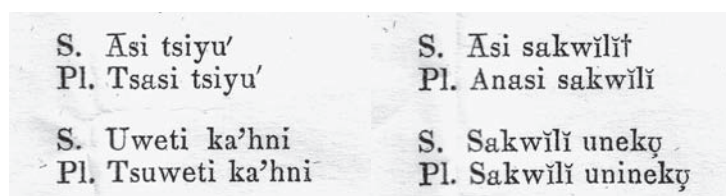


Figure 24 Three accents of the accents in use. *A grammar of the Cherokee language.*

While this writing system was favoured by the ABCFM, whose missionaries were active in developing a literacy program in the Cherokee community to disseminate their religious beliefs, it was met with little interest from the Cherokee themselves. Conversely, Sequoyah's syllabary was well-suited to the Cherokee language, and since its presentation to the Council in 1821 was rapidly being taken up by a sizeable portion of the Cherokee community. Furthermore, having been developed by a Cherokee man it had become a subject of national pride for the Cherokee people. In only a few years, it became the de facto embodiment of the Cherokee language.

As Samuel Worcester, a missionary of the ABCFM who arrived in the Cherokee nation in September 1825 and who was to play an important role in the translation of the Cherokee syllabary to print, reported to Rufus Anderson, assistant secretary of the Board, in a letter dated 27 March, 1826:

'If books are printed in Guess's characters, they will be read; if in any other, they will lie useless. [...] Whether or not the impression of the Cherokees is correct, in regard to the superiority of their own alphabet for their own use, that impression they have, and it is not easy to be eradicated.[...] At their national council, [the Cherokee people] have listened to a proposal to substitute an alphabet like that of Mr. Pickering, and have rejected it.'<sup>20</sup>

As Sequoyah's syllabary quickly came into general use, the Cherokee Council adopted it as the Nation's official script in 1825.<sup>21</sup> Pickering's Cherokee alphabet remained an object of consideration and discussion only among the members of the ABCFM, and as Worcester became better acquainted with the Cherokee language, in his correspondence with the Board he came to be an ardent supporter of Sequoyah's syllabary and increasingly critical of Pickering's alphabet and the ABCFM's support for it, noting in particular that he 'found no use of Mr. Pickering's vowel v....'.<sup>22</sup>

Pickering's alphabetic system never found more than marginal use—essentially by English speakers unfamiliar with the Cherokee language—and subsequently fell out of use entirely.

19. Pickering. *A Grammar of the Cherokee Language*, p.11-15

20. ABCFM 18.3.1 v.5, 230

21. Davis. *The Life and Work of Sequoyah*, p.166

22. ABCFM 18.3.1. v.5, 234



I intended to give you in my last a copy of my alphabet, but I believe I am not there yet. These is W. R D W T O C C C P O J Y Y Z B P B M S A C O S W B Z . A O B L G T A J Y A F G P W E U L P C R R H A A A C E O T P O C C P O J K M O B B G G 7 J J S S G I O U V P O O P P P H L L O Q L L L O S O E

This is the order in which they stand in the alphabet. I will write them again on the other side of the leaf, with in a different order with their sounds.

Figure 26 (above) Syllabary reproduced by Samuel Worcester, in a letter dated 22 December 1825  
Figure 27 (below) Model for the punchcutter by Worcester in his letter of 2 September 1826.

## WORCESTER'S MODEL FOR THE FONT

On 15 October 1825, Sequoyah's syllabary was made official by the General Council of the Cherokee Nation and a committee was appointed 'to raise funds for establishing a [Cherokee] government printing office'.<sup>23</sup> For this purpose a formal decree was passed to have a font cast in the Cherokee syllabary, and to purchase a font of 'English' type and a printing press.<sup>24</sup>

Sequoyah himself was not involved in the process of creating the typographic characters; by 1823, he has moved to the western branch of the Cherokee Nation, in Arkansas.<sup>25</sup>

The Council delegated to Samuel Worcester the task of providing the drawings for, and coordinating the creation of, the first Cherokee font. Being the son of a printer, and having worked in his father's print shop as a youth,<sup>26</sup> he had a basic knowledge of typography and printing.

He shortly undertook the process of preparing drawings to serve as models for the cutting of the Cherokee characters. In a letter to Jeremiah Evarts, corresponding secretary of the ABCFM, dated 2 September 1826,<sup>27</sup> Worcester mentions having given to Charles Renatus Hicks, principal chief of the Cherokee Nation since 1825, a copy of the syllabary drawn by himself 'for the use of the artist [punchcutter]' to be forwarded to Reverend David Steiner of the ABCFM, who had been 'directed [by Hicks] to procure the casting of types'. The contract for the cutting and casting of the font (and the provision of additional Latin fonts) was granted<sup>28</sup> to the foundry of 'Messrs. Baker and Greele' in Boston.<sup>29</sup>

In this letter, Worcester provided a set [Figure 27] of his renderings of the syllabary similar to the one he had prepared to serve as model for the cutting of the punches, along with specific instructions regarding the design of some characters and casting of the font:

'With regard to the size, Mr. Hicks agreed with me that it should be made to correspond with a fount of English small pica, so that both may be printed in the same line; the Cherokee letters being of the small capitals.'

About the characters specifically, he then added:

'Thus I think there will be no occasion for matrices for 16 of the characters, viz R D W G P M B A Z E T J K S H L, as the small capitals of the English fount will answer every purpose.'

With these instructions Worcester made design decisions which depart from Sequoyah's design. He appears careful to try to respect Sequoyah's drawings, adding in the same letter: 'I would not have the figure 4 substituted for the character 4 [...] nor would it be well to use an inverted V for v, but rather to have a distinct type, as u and n in English'.

However, in Sequoyah's design of his characters for print several character shapes are consistent and inter-related with other characters. It seems that several of these graphic consistencies were lost on Worcester,

23. Davis. *The Life and Work of Sequoyah*, p.155

24. Anonymous in *The Missionary Herald*, vol. 23, no. 12, p.382

25. Davis. *The Life and Work of Sequoyah*, p.165

26. Bass. *Cherokee Messenger*, p.126

27. ABCFM 18.3.1. v.5, 232

28. Bass. *Cherokee Messenger*, p.78

29. During its short and troubled life, from 1824 to 1886, the foundry which is now referred to as the New England Type Foundry changed management no less than eight times. From its inception to circa 1829, it was headed by Baker and Greele. Annenberg. *Type Foundries of America*, p.203

Sequoyah [from figure 3]

Sequoyah [from figure 3]

Hicks [from figure 9]

Worcester [from figure 36]

Worcester's model  
[from figure 27]

Figure 28

B	B	<i>B</i>	<i>B</i>	<b>B</b>
D	D	<i>D</i>	<i>D</i>	<b>D</b>
E	E	<i>E</i>	<i>E</i>	<b>E</b>
H	H	<i>H</i>	<i>H</i>	<b>H</b>
J	J	<i>J</i>	<i>J</i>	<b>J</b>
K	K	<i>K</i>	<i>K</i>	<b>K</b>
L	L	<i>L</i>	<i>L</i>	<b>L</b>
P	P	<i>P</i>	<i>P</i>	<b>P</b>
R	R	<i>R</i>	<i>R</i>	<b>R</b>
T	T	<i>T</i>	<i>T</i>	<b>T</b>
W	W	<i>W</i>	<i>W</i>	<b>W</b>
A	A	<i>A</i>	<i>A</i>	<b>A</b>
G	G	<i>G</i>	<i>G</i>	<b>G</b>
M	M	<i>M</i>	<i>M</i>	<b>M</b>
S	S	<i>S</i>	<i>S</i>	<b>S</b>
Z	Z	<i>Z</i>	<i>Z</i>	<b>Z</b>



but also for the most part on other users of the script including Hicks, and as a result many of the formal consistencies between the characters—especially those totally invented characters which bore no formal reference to Latin letters—as they were initially intended by Sequoyah were subsequently lost.

This can be observed by comparing, in Figures 28 to 37, Sequoyah's drawings of the syllabary [extracted from figures 3 and 25] with those of another Cherokee man literate in the syllabary, such as Hicks [extracted from Figure 9] and then Worcester's handwriting [from figure 26] and model for print [from figure 27].

Figure 28 displays those sixteen characters which Worcester perceived to have been directly inspired by the Latin capital letters and for which he consequently instructed the punchcutter to use Latin small caps matrices. Eleven of these characters appear, in Sequoyah's drawing, very close indeed to their latin counterparts. Of the remaining five characters, three—**G**, **M**, **A**—are not exactly modeled on the Latin characters:

- In **A**, the perpendicular segment on the crossbar is absent in Worcester's model, which could probably be attributed to the wish to avoid a potential filling-in of the counter in print.
- The character **G** differs slightly from Sequoyah's shape in that a spur has been added to its right lower joint.
- In Sequoyah's drawings, the character **M**'s apexes are serifless and the vertex does not descend to the baseline. In Worcester's drawing, the character is rendered by borrowing a serified design of the latin cap **M**.

Interestingly, although Sequoyah's shapes were indeed faithfully reproduced in written form by Worcester, a conscious decision was made to use the latin characters **G**, **M**, **A** instead. The remaining two of the sixteen characters, **s** and **z** as drawn by Sequoyah differ completely from the Latin letters attributed to them. Their likening to the latin **S** and **Z** is an interpretation specific to Worcester; he seems to have interpreted these characters in a manner biased by his familiarity with the appearance of the Latin script:

- Sequoyah's shape for **s** is not unlike a Latin **S**, but is drawn rotated 90°. Worcester substituted an upright Latin **S** in its stead.
- **z** is drawn by both Sequoyah and Hicks with a clearly upright stem terminated by two horizontal segment which extend on both sides of the stem; but Worcester significantly interpreted the character (as will be further detailed later), drawing it with a slanted stem and shortened horizontal strokes joining it at its ends—essentially making it into a Latin letter **Z**.

As has been highlighted, Sequoyah used typographic elements—serifs, beaks, ball terminals—in a manner unorthodox for Latin typography. Worcester, in his model for cutting the punches, restrained several of those elements to shapes which obeyed latin typographic convention.

Sequoyah, undated drawing [fig. 3]

Sequoyah, drawing, 1839 [fig. 25]

Hicks, drawing, 1825 [fig. 9]

Worcester, handwriting, 1825 [fig. 26]

Worcester's model for the punches,  
1826 [fig. 27]

Figure 29



Figure 30



Figure 31



For example, at the end of some strokes, Sequoyah put small triangular elements which he clearly modeled on Latin beaks. Such triangular elements in Sequoyah's drawings are consistently translated [Figure 29] as beaks in Worcester's model for print. In the character **ᄠ**, this translation is carried to the triangular shapes but also to the two opposed serif-like straight segments, transforming Sequoyah's intentionally asymmetrical character into a symmetrical one with four beaks.

Worcester's deliberate restraining of Sequoyah's vertical serif-like strokes—those which extend equally on both sides of the horizontal stroke to which they are attached—is clear in the characters in Figure 30. Their translation to typographic shapes is inconsistent: in some cases they are rendered as beak-like structures, like the triangular elements in Figure 29 from which they differ: in the remaining characters, they are rendered as a short segment extending only on the inner side of the character. It is even more significant in **ᄡ**: Worcester does again reduce the vertical serifs to beaks, but completely changes the character's shape by rendering it as a Z despite its basic structure being clearly related to **ᄠ** and **ᄢ** in both Sequoyah's and Hicks' renderings.

Several of the characters invented by Sequoyah shared other common visual elements. However several of these common features were interpreted differently from one character to another—particularly in the case of the more cursive characters detailed in Figures 31 to 33—in their preparation for print in Worcester's model for the punchcutter.

In Figure 31 all the characters have an elliptical element of similar proportion in Sequoyah's drawing, particularly the five first five characters. However, in Worcester's model they are given different widths and stroke modulations, making them look significantly less related. In each character, some elements also differ from Sequoyah's model:

- The sinuous bar diagonally crossing the counter of **ᄢ** has been made more angular and horizontal in Worcester's interpretation.
- The small diacritic-like sharp hook on the right side of the **ᄣ** in Worcester's rendering is far removed from Sequoyah's more sinuous stroke which extended almost to the full height of the character and as wide as the elliptical part of the character.
- It can also be noted that the significant reduction of the size of the oval in **ᄤ** echoes Hicks and Worcester's drawings more than Sequoyah's, but not significantly so.

In Sequoyah's designs, all the characters of Figure 32 display a similar swash stroke on the bottom left side. Some of that consistency is lacking in Worcester's interpretations, and even more so in the Hicks syllabary, and it is almost completely absent in Worcester's model for the punchcutter. The first six characters—**ᄥ**, **ᄦ**, **ᄧ**, **ᄨ**, **ᄩ**, **ᄪ**—have a somewhat similar stroke, but that stroke is totally different in the remaining characters: **ᄫ**'s stroke no longer extends to the baseline, and a ball terminal is added to the corresponding stroke in **ᄬ**, **ᄭ**, **ᄮ** (it is worth noting that a ball terminal does appear in Hicks' drawing of **ᄭ**) with the stroke of the latter also being

Sequoyah, undated drawing [fig. 3]

Sequoyah, drawing, 1839 [fig. 25]

Hicks, drawing, 1825 [fig. 9]

Worcester, handwriting, 1825 [fig. 26]

Worcester's model for the punches, 1826 [fig. 27]

Figure 36



Sequoyah, undated drawing [fig. 3]

Sequoyah, drawing, 1839 [fig. 25]

Hicks, drawing, 1825 [fig. 9]

Worcester, handwriting, 1825 [fig. 26]

Worcester's model for the punches, 1826 [fig. 27]

Figure 32



Figure 33



Figure 34

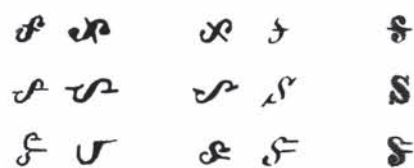
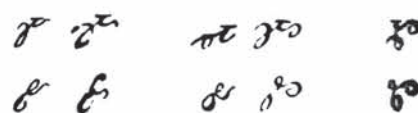


Figure 35





raised to the character's mid-height. Furthermore, the first six characters possess a similar cursive diagonal angle in Sequoyah's drawing, but have their bottom part brought down to the baseline in Hicks' and Worcester's drawings. In the latter's model for print, the similarities are further reduced; the first three characters are still related to each other, and so is the other group of three, but the formal similarities between the two groups is almost completely gone: the first group being modulated on a vertical axis, the second on a hybrid, but mostly horizontal, one.

The closed loops of ʘ and ʘ in Figure 33 are similar to each other and also have similar proportions to those found in the characters in Figure 32. In Worcester's model, ʘ is defaced and illegible, but we can observe that at least ʘ no longer shares similarities with the characters of Figure 32. The character is rendered in a shape more similar to the cursive shape of the Latin letter e, as it is also presented in Hicks' drawing. Moreover, in Sequoyah's design, the loop extends up to the standard characters' height and the upward curved stroke extends above it. In Worcester's rendering the upward stroke of ʘ only extends up to the other characters' height, so the loop is scaled down accordingly.

The characters in Figure 34 are not related in Sequoyah's design of the syllabary, but they are made similar in Worcester's model for the punch-cutter. In Sequoyah's design, ʂ shares formal characteristics with characters such as ʂ, ʂ and ʂ: it has a lunate-shaped stroke terminated on top by a serif-like segment and under which is adjunct a cedilla-like curved small stroke. In Hicks and Worcester's interpretations, however it takes the shape of an s-like character, to which is adjunct a horizontal segment at its mid-height. In the model for the punchcutter, it now closely relates in shape to the characters ʂ and ʂ which have both been rotated 90° counter-clockwise to resemble more the Latin s—the matrix of which was to be used for ʂ, as seen previously.

In Figure 35, the characters in the model appear to be based on Worcester's interpretation and differ significantly from Sequoyah's characters.

Worcester also altered the vertical span of some of the characters. All the characters in Figure 36 are based on a central stroke similar to the Latin I. In Sequoyah's model, ʂ has a curved stroke extending from the center of its stem to ascend above the characters' height. In Worcester's model, the whole character shape is shrunk down to make the apex of the curved stroke only reach up to the characters' regular height.



Figure 37

As already noted in Figure 33, this scaling down of a character was also applied to ʘ. Two more characters, in Worcester's model, are altered to fit the standard vertical alignment: ʂ is not scaled down but has its top and bottom segments truncated; the same procedure is applied to the descending stroke of ʂ. [Figure 37]



## ALTERATIONS TO THE MODEL

When Worcester received proofs of the font in the late spring or early summer of 1827, the political landscape of the Cherokee Nation had changed: Charles Hicks had died of illness in early 1827,<sup>30</sup> and was succeeded by John Ross in the position of Principal Chief of the Cherokee Nation.

Ross, along with George Lowry (referred to by Worcester and some other sources as Major Lowry, who would become in 1828<sup>31</sup> Assistant Principal Chief), subsequently became involved in the process of the creation of the Cherokee font. Not being literate in the syllabary,<sup>32</sup> Ross' comments remained general. Maj. Lowry, however, took a very active part in supervising the work of Worcester and took a role which would now be considered art direction; Worcester explicitly expressed his wish to have the font designed in such a way that it would meet their satisfaction.<sup>33</sup>

In a letter dated 12 June 1827,<sup>34</sup> Worcester relates Ross and Lowry's reaction to the proof of the characters cut according to his model and instructions. Ross was displeased with the decision to have the font cast on the small pica body size, and on a small caps height to harmonize with Latin lowercase characters as Worcester had instructed with Hicks' approval:

‘...I had [Ross’s] opinion in writing that the characters ought to be a size larger. [He] wishes to have the Cherokee characters larger than the English, because he thought the small pica large enough for perspicacity in regard to some of the letters, and because, being made larger, when a Cherokee word was printed in an English line, as might frequently be done, the difference would more readily strike the eye.’

Lowry, for his part, severely critiqued some of the characters' shapes. Consequently, Worcester provided a new model for the characters (now lost), redrawn according to Lowry's directives, and specifically highlighted some of them:

‘The following are such as I think should by all means be altered, in conformity with [Lowry’s] wishes [...], ୮ ୨ ୩ ୪ ୫ ୬ ୭ ୮ ୯ ୧୦ ୧୧ ୧୨. [...] Respecting the character ୧୩ [...] the new is not suited to my taste but Maj. Lowry was very particular respecting that one letter and I made it perhaps a hundred times before I could suit him. ୧୪ should have the space between the first and final strokes...’

Lowry also made the decision to not have the character G cast into type, concluding that the syllable it represented was not distinct enough from two others, and rendering it redundant.<sup>35</sup>

The new characters' models and directives were forwarded to the foundry of Baker & Greele. The punches were recut, and the Cherokee font was finally cast in the summer of 1827.

30. Carselowey. *Cherokee Old Timers*,  
p.39

31. *ibid*

32. McLoughlin. *Cherokees and Missionaries*, p.184

33. ABCFM 18.3.1. v.5, 237

34. *ibid*

35. Boudinott in *Cherokee Phoenix*, vol. 1, no.23, 6 August 1828, p.2

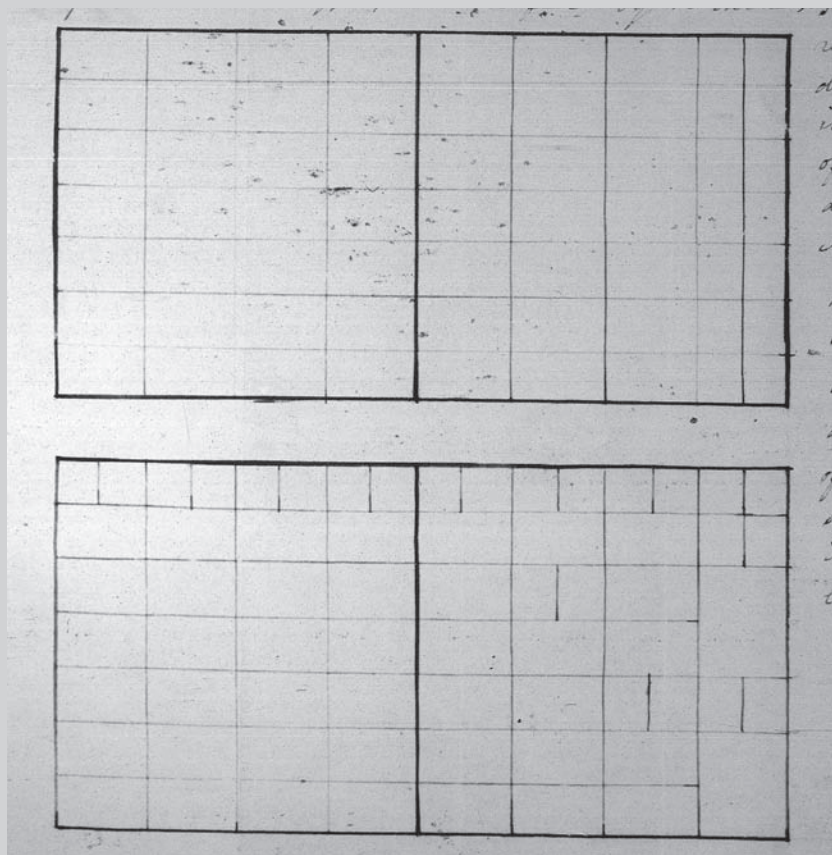


Figure 38 Layout of the Cherokee cases.



Figure 39 Syllabic characters of the Cherokee font.



## THE FONT

In November 1827, the Cherokee font was shipped—along with a printing press—from Boston to the Cherokee Nation, where it arrived in late January 1828.<sup>36</sup> In order to accommodate the Cherokee font, John Foster Wheeler,<sup>37</sup> the printer appointed in December 1827 to operate the Cherokee Press, designed new cases specifically according to the range of characters in the script.<sup>38</sup>

Despite the Cherokee script having a single form for each syllabic character, the type was separated into two cases, each one measuring three feet wide by eighteen inches long<sup>39</sup>: the upper case was divided into 63 boxes, and the lowercase into 66, for a total of 129 units. [Figure 39]

The arrangement of the sorts in the cases is unknown. In fact, it seems that no precise list of which characters comprised this original Cherokee character set has been preserved; but Worcester, in his various correspondence, cumulatively mentioned one hundred of them:

- The eighty-five syllabic characters. [Figure 39]  
In an order for a completely new set of type,<sup>40</sup> Worcester detailed, in ounces, the amount of sorts for each character. [Appendix 8]
- The ten figures 0-9 (in lining form only).
- Five accents/diacritic marks. [Figure 40]

These accents were likely not created by Sequoyah. However, no mention of their creation, design or even existence seems to be found in any correspondence related to the font. In the surveyed archives, an explanation of the function of only one of these marks seem to exist: the one similar to a scaled-down colon. In the Cherokee Hymns book of 1829, it is explained that it indicates that ‘the syllable to which it is prefixed is either omitted in singing, or loses its vowel sound’.<sup>41</sup> In all the publication surveyed in this research, it is also the only one which seem to be used. [Figure 40]



Figure 40 Cherokee accents.

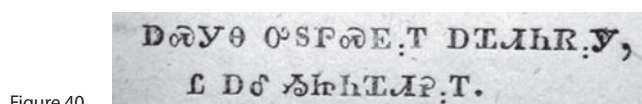


Figure 40

Worcester also vaguely indicated that ‘punctuation marks’ were to be provided in the same proportions as in the equivalent Latin small pica font.<sup>42</sup> As to the remaining twenty-nine units, fourteen punctuation and non-syllabic characters—all with the same grammatical function as in the Latin script—can be seen used in Cherokee text settings: period, comma, colon,<sup>43</sup> semicolon, hyphen, double opening and double closing quotes, exclamation mark, question mark, asterisk, left and right parenthesis, fist, and a long stroke (similar to the em dash but roughly twice the length of the widest character). One additional glyph was no doubt the wordspace character, and the remaining fourteen boxes likely included, among others, the five additional spaces (em-, en-, thick-, mid- and thin) traditionally included in a font. A few of the boxes may have remained empty.

36. Anonymous in *The Missionary Herald*, Volume 23, Number 12, December 1827, p.382

37. Bass. *Cherokee Messenger*, p.81

38. Bass. *Cherokee Messenger*, p.80

39. ABCFM 18.3.1. v.7, 21(5)

40. ABCFM 18.3.1. v.7, 234

41. Boudinott and Worcester. *Cherokee Hymns*

42. ABCFM 18.3.1. v.7, 234

43. Worcester mentions the colon not being used in Cherokee (*ABCFM 18.3.1 v.7, 234*) but I saw it being used several times in various Cherokee texts.

It may have been borrowed from the equivalent English font when needed.

Figure 43

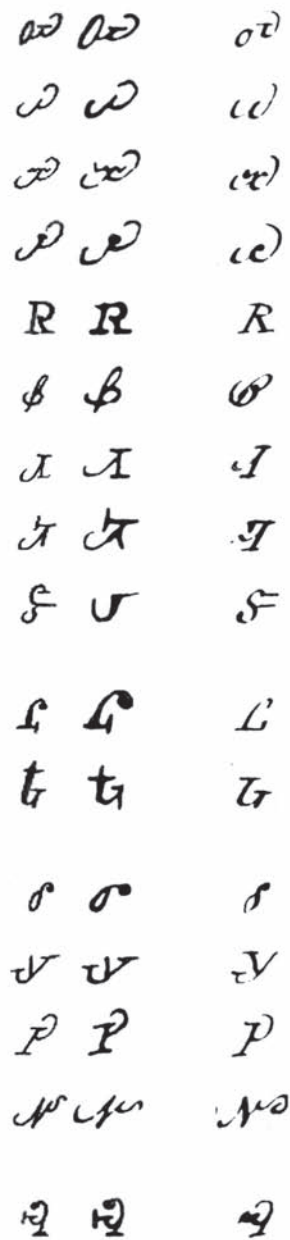


Sequoyah, undated drawing [fig. 3]

Sequoyah, drawing, 1839 [fig. 35]

Worcester, handwriting, 1825 [fig. 26]

Figure 44



ABCDEFGHIJKLMNOPQRSTUVWXYZ

Figure 42 Small capitals of the Baker and Greele small pica fonts.

The font was cut and cast on a small pica body [Figure 41], as originally instructed by Worcester and despite Ross' objection, which seems to have been subsequently abandoned. Also following Worcester's initial instructions, the characters R D W G P M B A Z E T J K S H L were taken directly from the small capitals [Figure 42] of the only small pica font [Appendix 3] available from Baker & Greele. More precisely, three fonts in the small pica body—Small Pica No 1, Small Pica No 2 and Small Pica No 3—can actually be found in the 1827 (and subsequent) catalogues<sup>44</sup> of Baker & Greele; but the three fonts differ in design only in the lowercase, sharing the same capitals and small capitals.

Nine of the fifteen characters which Lowry specifically instructed to be recut according to his directives—*Ꭰ* *Ꭱ* *Ꭲ* *Ꭳ* *Ꭴ* *Ꭵ* *Ꭶ* *Ꭷ* *Ꭸ*—were indeed modified and, interestingly, brought back closer to Sequoyah's models [Figures 43 and 44]:

- the *Ꭰ*, *Ꭱ*, *Ꭲ*, and *Ꭳ*, while still being brought down to the baseline as in Worcester's drawings, have their swash-like stroke reduced to extend only over the right half of the characters, as in Sequoyah's design.
- the *Ꭴ* is altered as requested to open up in its middle part, a feature which was present, though somewhat unclear, in Sequoyah's drawings.
- the descender stroke in *Ꭵ* is reinstated.
- the leg of *Ꭶ* and *Ꭷ* is brought back down to the baseline, but the finial ends in a ball terminal which is from Worcester's model. Additionally, in *Ꭷ* the bottom serif is now absent as in Sequoyah's model.
- the new design of *Ꭸ* goes back to being the character created by Sequoyah rather than being an S-derived one as in Worcester's drawings.

Two other characters were also partially reverted back to Sequoyah's original drawings:

- the top stroke of *Ꭹ* again ends in a ball terminal instead of looping back into the stem.
- the stem of *Ꭺ* extends above the crossbar.

Of the five remaining characters listed in Worcester's letter, four—*Ꭻ*, *Ꭼ*, *Ꭽ* and surprisingly *Ꭾ*, about which Lowry was so specific—show only marginal differences with Worcester's initial model.

The remaining character, *Ꭿ*, appears in a new form different from both models. It is a shape derived from both: the lunate shape drawn by Sequoyah has been replaced by a stem curving at its top, as in Worcester's drawing; but its left arm is a simplification of the equivalent part in Sequoyah's model.

The other characters remained essentially as Worcester first drafted them, in his first model of September 1826.



Figure 41 Detail of the Cherokee characters, which were cast on small cap height.

44. New England Type and Stereotype Foundry. *Specimen of printing types from the New England Type Foundry*, (no pagination)

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on  
con  
div  
res

5 0ΛW0ΛZ T880 T8 S0RT;  
0F0YZ RZ8 S0RT.

EXTRACTS FROM THE CORRESPONDENCE OF MR. WASHBURN.

Figure 45 First appearance of the Cherokee syllabary in print, in the *Missionary Herald*, in 1827.



Figure 46 The *Cherokee Phoenix* newspaper, published from 21 February 1828 until May 1834.



## ‘CHEROKEE INCUNABULA’

Barely five years after its introduction in Cherokee society, the Cherokee syllabary made its first appearance in print,<sup>45</sup> in the *Missionary Herald* of December 1827 [Figure 45]—though it was printed not from the types themselves, but from a stereotype.

The Cherokee Press began operation in February 1828 with the publication of the first issue of the *Cherokee Phoenix* [Figure 46], which was to be published in English and Cherokee weekly—with a few intermissions—for seven years. It also marked the beginning of the prolific publication of religious books and pamphlets—as well as secular materials such as legal documents and notices, hymn books, and almanacs—in the Cherokee script.

While the Cherokee Press was thriving—with up to three presses running simultaneously,<sup>46</sup> conditions in the Cherokee Nation were beginning to deteriorate. In the early 1830s the state of Georgia was rapidly expanding, leading Georgian settlers to begin to claim land in the Cherokee Nation; and crucially, gold was discovered in Cherokee territory. The situation gradually degenerated and led to unrest. The *Cherokee Phoenix* ceased to be published in May 1834, and all the Cherokee Press printing activities were put on hiatus. In 1835, the Cherokee Press was seized by the Georgia Guard.<sup>47</sup>

In 1835, a unofficial group of Cherokee representatives called the Cherokee Treaty Party signed the controversial Treaty of New Echota, by which the Cherokee Nation renounced its land in Georgia in exchange for land west of the Mississippi river, in a new ‘Indian Territory’ (now Oklahoma).<sup>48</sup> The ratification of this treaty led to the darkest period in Cherokee history, referred to as The Trail of Tears—the forced removal in 1838–39 of fifteen to seventeen thousand of Cherokees, about four thousand of whom died before reaching their new land.<sup>49</sup>

## NEW LAND, NEW TYPEFACE

In summer 1834, shortly before the political situation unravelled, Worcester had undertaken the process of having a revised version of the Cherokee font cast. It had become apparent that some characters’ shapes were proving problematic when printed: ten of the syllabic characters often looked too similar to other characters and/or were prone to breakage. As Worcester details<sup>50</sup>:

‘It [is] thought necessary that some of the characters should be altered on account of too great a resemblance to others. They are all perhaps sufficiently distinct when the print is clear but we find that we cannot always rely upon it...’

45. Walker, R. *Torchlights to the Cherokees*, p.232

46. Foster. *Story of the Cherokee Bible*, p.33

47. Walker. *Native American Writing Systems*, p. 147

48. McLoughlin. *Cherokees and Missionaries*, p.306

49. Ehle. *Trail of Tears*

50. ABCFM 18.3.1 v.7, 234

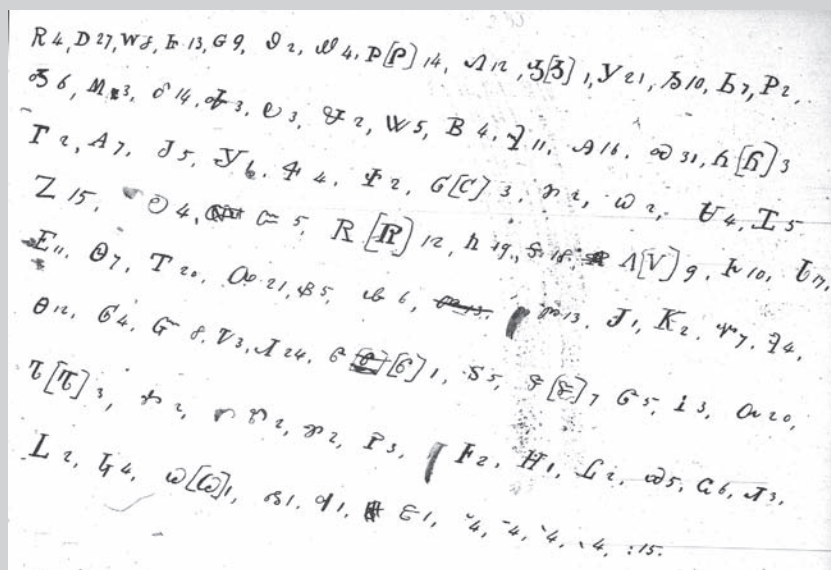


Figure 47 Drawing by Worcester of the characters to be amended; new character shapes in brackets.

<u>A</u>	<u>B</u>	<u>C</u>
Λ	→ V	A
ſ	→ S	ſ
G	→ C	G
h	→ h	h
F	→ F	P
R	→ R	R
ℓ	→ ℓ	ℓ
6	→ 6	
3	→ 3	

Figure 48 Characters modified in the recut of the font; in column A, the characters in their 1828 shape; in column B, their new shape designed to better differentiate them from the characters in column C.

Worcester provided a character scheme with a rendering of new shapes decided for the problematic characters. His drawings [Figure 47], which were much sloppier than the ones he had provided for the cutting of the original characters, served as the model for the new ones; he instructed that the punchcutter ‘correct the roughness of the stroke of [his] pen and reduce to their proper size the characters which were made too large, carefully retaining the form’.<sup>51</sup> Some of the changes were relatively minor adjustments, but some others represented significant changes to the syllabary [Figure 48]:

- The most significant change was the 180° rotation of the character v, now appearing as a V, rather than Λ, in order to avoid confusion of this character with A. Worcester explicitly instructed the use of ‘the small capital roman v’.<sup>52</sup>
- The 1835 shape of s was very different from its previous form, which was closely modeled on Sequoyah’s design. It now appeared in a form which very closely matched Worcester’s transcription (and Hicks’ to a lesser extent) of the character in his letter of December 1825 [Figure 49]. This new shape distinguished it more clearly from \$, beside which it frequently occurs.
- The 1827 shape of the character c was replaced by the Latin small capital letter C from the Latin small pica font, also as instructed by Worcester<sup>53</sup> to avoid confusion with the character c̣. This modification represents a significant change to the character’s shape, especially considering that the characters c̣, c, c̣, and c̣ are all quite similar in appearance and are only made distinct from each other by small structural elements. [Figure 50]
- A hook with a ball terminal was added to the ascender of the character h to better differentiate it from h.
- The character f was rounded off to reduce its confusion with P.
- The counter of R was opened up further than had been requested by Lowry in 1827, and its leg made more vertical to bring it further away from R.
- For the modification of character ṭ, Worcester indicated what was needed thus: ‘a little enlargement of the short perpendicular left hand stroke, [which has been] found too liable to be broken off, thus transforming the character into the other one ṭ’. Those parts of the character indicated by Worcester differed slightly in shape in the final punch from Worcester’s instructions; additionally the spiral tail was closed into a loop.
- Worcester did not specify the reasons for his request to modify the character 6; in its new shape, it lost its serif-like terminal stroke and was made more similar to a Latin numeral 6.
- The last character, 3, was recut in a pattern which differs fairly significantly from Worcester’s design.

By the time the revised font was ready, in early 1835, Worcester had already moved to the Indian Territory. With the approval of the local Cherokee

Figure 49 s drawn by Hicks (left), and by Worcester (right). Extracted from figure 34.



Figure 50

51. ABCFM 18.3.1 v.7, 234

52. *ibid*

53. *ibid*



Figure 51 Syllabic characters of the second Cherokee font.



authorities, a new Indian Press<sup>54</sup> was set up temporarily at a missionary station called Union. Worcester and John Wheeler undertook to resume the printing activities which had been suspended in 1834. The printing press having been seized, they arranged to have a new one sent from Boston,<sup>55</sup> and with it the new revised version of the Cherokee font.

Worcester appeared not to have been overly satisfied with the new characters. In a letter<sup>56</sup> from Dwight, in the Indian Territory, dated 2 August 1835, he writes:

‘I think the artist who made the alterations in the Cherokee type, which I requested last year, cannot be the same with the one who formed the original matrices, nor equally skilful in imitation..’

He is particularly critical of the new shape of the character ʒ:

‘[It] will not answer at all. It is so unlike the pattern which I sent, that I am led to suppose the pattern must have been defaced, before it came into the artist’s [punchcutter’s] hands... Be so kind as to have a new punch made, and type cast, and forwarded with our next supplies. I must attempt a new pattern...’

The character was promptly recut and added to the font; it appeared in its corrected shape in the 1835 specimen sheet. This and all the other characters amended in the 1834 recut of the font became the standard shapes for the syllables they represented in the syllabary.

## A SECOND CHEROKEE FONT

In the letter of 17 July 1835, Worcester also mentioned the wish to have a second Cherokee font, ‘cast on a long-primer body’.<sup>57</sup> Such a font was never created. It would not be until the late 1850s that a second Cherokee font was created, and no documentation of its creation process seems to have been preserved.

This second font [Figure 51] differs in typographic style from the first one. The first font was in the then contemporary, and ubiquitous, Scotch Roman style. The second font was instead modeled on an earlier style, the Didone.

Typographic style aside, most of the characters of the second font retain essentially the same structure as those of the 1834 amended version of the first font. The only character to differ noticeably is ʒ; its shape in the second font is closer to the shape it had in the first font before the modifications of 1834 [Figure 52]. More significantly, the decision was apparently taken not to include the character ɠ in the second font, probably because it was almost never used.

Despite having been cut in a different style and with the character differences highlighted above, it seems that the second font was intended to



Figure 52 Character ʒ. Left: 1828 shape. Middle: 1834 shape. Right: Second font.

54. Walker. *Native American writing systems*, p.147

55. Bass. *Cherokee Messenger*, p.187

56. ABCFM 18.3.1 v.7 23(5)

57. ABCFM 18.3.1 v.7 234



Figure 53 The second Cherokee font (eg. last character on the right) cast on the same body, small pica, as the first font.

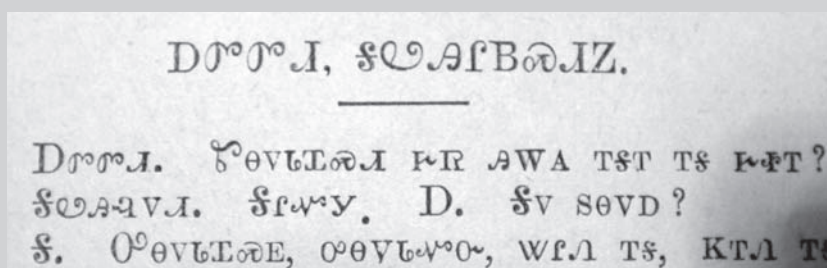


Figure 54 The second Cherokee font used for capitalisation purpose.

serve as a companion to the first, rather than being a new independent one. The characters are indeed larger, but they were cast on the same small pica size as the first font. They were in effect cast as capital-height characters rather than small capitals. [Figure 53]

It was indeed essentially for the purpose of ‘capitalisation’—in basically the same manner that capital letters are used in the Latin script—that this second font found use: it was used in text set in the first font, at the beginning of sentences, or to capitalise proper nouns; it was used to create full-caps titles [Figure 54]. It was apparently never used independently to set text at a larger size.

So while this was indeed a new set of Cherokee characters, it only served to supplement the existing Cherokee font. In practice, the first font remained the sole font used to set documents in Cherokee.

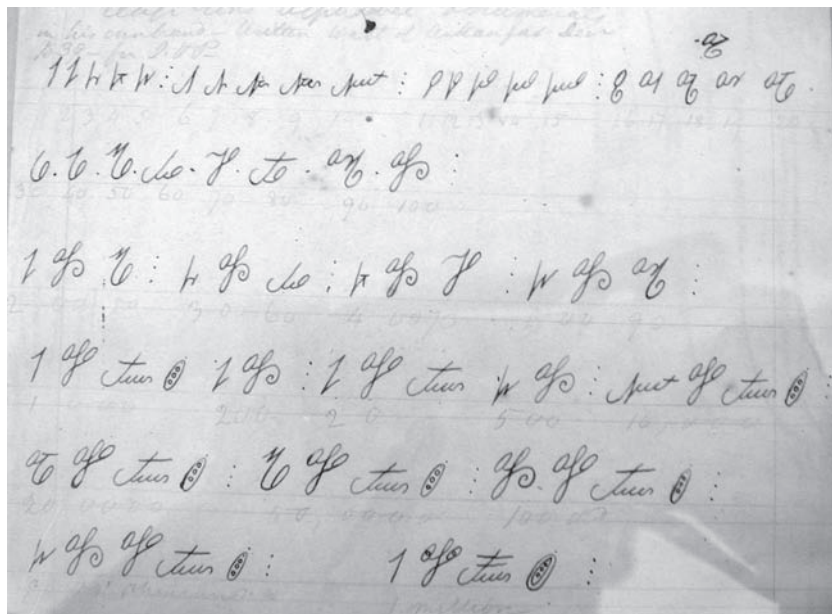
In what may represent an exceptional case in the history of writing systems, a single typeface (with the minor support of a secondary one) was used to produce all the printed documents, numbering thousands of pages, in this writing system for nearly one hundred and fifty years: from 1828 until the revival of the syllabary in the 1970s, and its associated adaptation to new typesetting technologies.

This typeface—the embodiment of the Cherokee script—was essentially the creation of Sequoyah, the very person who invented the writing system itself. Having taken his inspiration for its characters from the language of typography, he thus created an essentially typographic writing system.



## APPENDICES





Appendix 1 Numeric system created by Sequoyah, in his own hand.



SMALL PICA, No. 1.

Quousque tandem abutere, Catilina, patientia nostra? quam diu nos etiam furor iste tuus eludet? quem ad finem sese effrenata jactabit audacia? nihilne te nocturnum præsidium palatii nihî urbis vigiliæ, nihil timor populi, nihil consensus bonorum omnium, nihil hic munitissimus habendi senatus locus, nihil horum ora vultusque moverunt? patere tua consilia non sentis? constrictam jam omnium horum conscientia teneri conjurationem tuam non vides? quid proxima, quid superiore nocte egeris, ubi fueris, quos convocaveris, quid consilii ceperis, quem nostrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, consul vidit: hic tamen vivit. Vivit? imo vero etiam in senatum venit: fit publici consilii particeps: no-

ABCDEFGHIJKLMNOPQRSTUVWXYZÆ

ABCDEFGHIJKLMNOPQRSTUVWXYZÆ

SMALL PICA, No. 2.

Quousque tandem abutere, Catilina, patientia nostra? quamdiu nos etiam furor iste tuus eludet? quem ad finem sese effrenata jactabit audacia? nihilne te nocturnum præsidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil consensus bonorum omnium nihil hic munitissimus habendi senatus locus, nihil horum ora vultusque moverunt? patere tua consilia non sentis? constrictam jam omnium horum conscientia teneri conjurationem tuam non vides? quid proxima, quid superiore nocte egeris, ubi fueris, quos convocaveris, quid consilii ceperis, quem nostrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, consul vidit: hic tamen vivit. Vivit? imo vero etiam in senatum venit: fit publici consilii particeps: notat et designat oculis ad cædem unumquemque

*Quousque tandem abutere, Catilina, patientia nostra? quamdiu nos etiam furor iste tuus eludet? quem ad finem sese effrenata jactabit audacia? nihilne te nocturnum præsidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil consensus bonorum omnium, nihil hic munitissimus habendi senatus locus, nihil horum ora vultusque moverunt? patere tua consilia non sentis? constrictam jam omnium horum conscientia teneri conjurationem tuam non vides? quid proxima, quid superiore nocte egeris, ubi fueris, quos convocaveris, quid consilii ceperis, quem nostrum ignorare arbitraris? O tempo*

ABCDEFGHIJKLMNOPQRSTUVWXYZ.

☞ \$1234567890£ ¼½¾¾¾¾¾¾¾¾☞

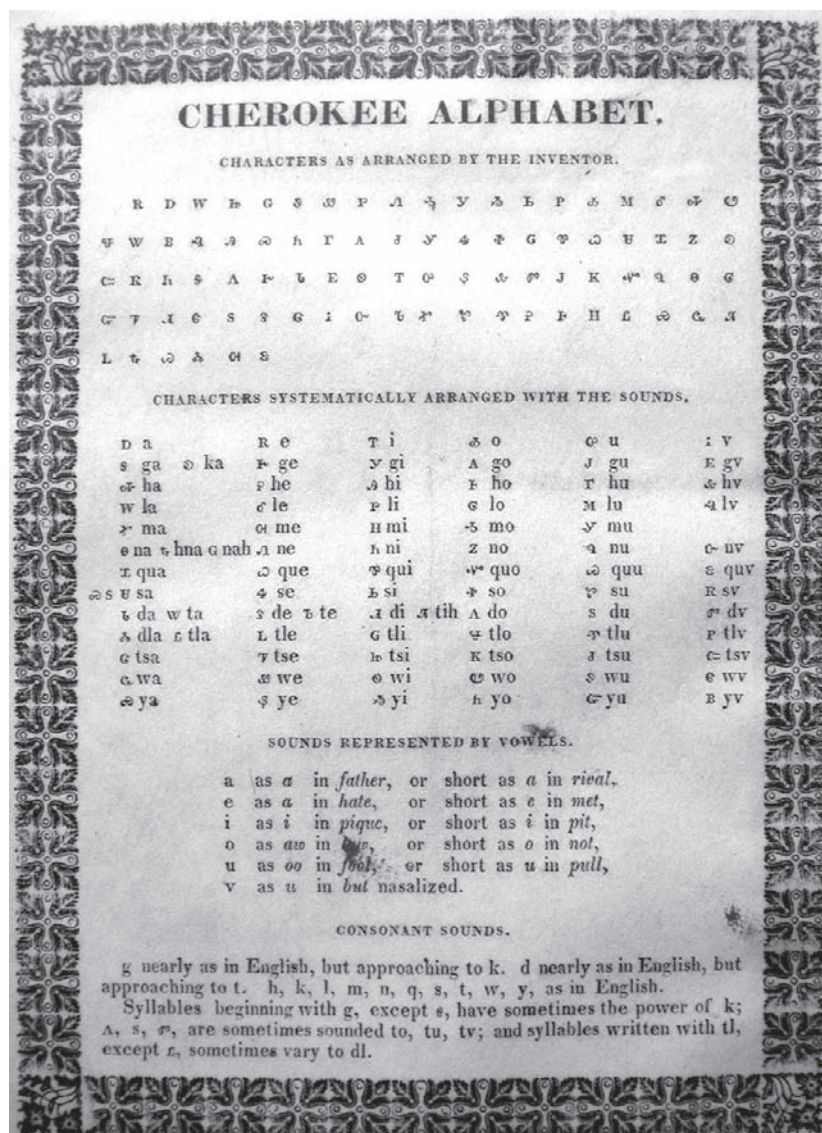


R	D	W	h	G	o	u	F	l	3
y	o	b	p	o	M	o	o	o	o
W	B	o	A	o	h	Γ	A	J	y
4	o	G	o	o	U	T	Z	o	o
R	h	o	Λ	h	l	E	o	T	o
β	o	o	J	K	o	o	o	G	o
γ	Λ	o	S	o	G	i	o	o	o
o	o	p	F	H	l	o	G	Λ	L
o	o	o	o	o					

Appendix 4 Syllabic characters of the 1828 version of the first Cherokee font.

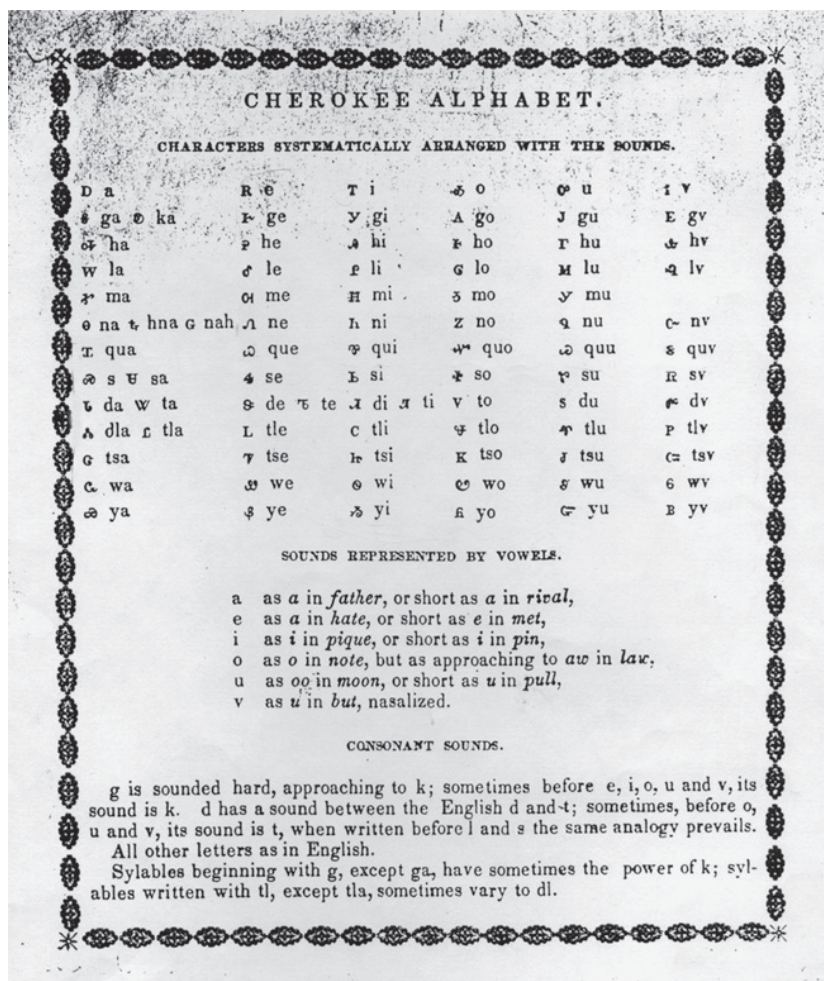
R	D	W	h	G	o	u	o	l	3
y	o	b	p	o	M	o	o	o	o
W	B	o	A	o	h	Γ	A	J	y
4	o	C	o	o	U	T	Z	o	o
R	h	o	V	h	l	E	o	T	o
β	o	o	J	K	o	o	o	G	o
γ	Λ	o	S	o	G	i	o	o	o
o	o	p	F	H	l	o	G	Λ	L
o	o	o	o	o					

Appendix 5 Definitive version of the first Cherokee font with the characters amended in 1834.



Appendix 6 Type specimen of 1828.





Appendix 7 Type specimen of 1835.

R 4	P 2	Γ 2	∞ 5	∞ 13	G 5	∞ 3
D 27	o 6	A 7	R 12	J 1	i 3	L 2
W 8	M 3	J 5	h 19	K 2	o 20	t 4
h 13	c 14	v 1	s 18	∞ 7	∞ 3	∞ 1
G 9	∞ 3	4 4	v 9	∞ 4	∞ 2	∞ 1
o 2	∞ 3	∞ 2	∞ 10	∞ 12	∞ 2	∞ 1
∞ 4	∞ 2	C 3	∞ 17	∞ 4	∞ 2	∞ 1
∞ 14	W 5	∞ 2	E 11	∞ 8	∞ 3	
∞ 12	B 4	∞ 2	∞ 7	∞ 3	∞ 2	
∞ 1	∞ 11	∞ 4	T 20	∞ 24	H 1	
∞ 21	∞ 16	∞ 5	∞ 21	∞ 1	∞ 2	
∞ 10	∞ 31	Z 15	∞ 5	s 5	∞ 5	
∞ 7	∞ 3	∞ 4	∞ 6	∞ 7	∞ 6	

Appendix 8 Amount, in ounces, of each character in a font of the Cherokee type.



## VISUAL SOURCES

All images are original photographs, unless otherwise noted.

- Figure 2 Nefire, Eli, Scott, David and Meredith, Howard. *Cherokee Teaching Grammar*, p.20. Oklahoma City and Park Hill: Notsi Press, 2001
- Figure 3 Gilcrease Museum, catalogue number 4926.448
- Figure 6 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.5, item 234
- Figure 7 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.9, item 67
- Figure 8 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.7 v.5, item 290
- Figure 9 Gilcrease Museum, catalogue number 3526.343
- Figure 11 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.7 v.5, item 234
- Figure 12 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.7 v.5, item 121
- Figure 20 Pickering, John. *A Grammar of the Cherokee Language*. Boston, 1825
- Figure 21 Ibid
- Figure 22 Ibid
- Figure 23 Ibid
- Figure 24 Ibid
- Figure 25 Gilcrease Museum, catalogue number 4026.312
- Figure 26 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.5, item 229
- Figure 27 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.7, item 235
- Figure 38 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.7, item 21(5)
- Figure 40 Boudinott, Elias and Worcester, Samuel. *Cherokee Hymns*. New Echota: Mission press, 1828
- Figure 41 University of Tulsa, McFarlin Library. Schleppey ephemera, 6.1
- Figure 45 *Missionary Herald*, volume 23 number 12, December 1827
- Figure 46 *Cherokee Phoenix*, volume 1, number 9, 17 April 1828
- Figure 47 Harvard University, Lamont library, archives of the American Board of Commissioners for Foreign Missions, 18.3.1 v.7, item 234
- Figure 53 University of Tulsa, McFarlin Library. Schleppey ephemera, 6.1
- Figure 54 American Baptist Society. *Cherokee Hymns*. Philadelphia: American Baptist Publication Society, 1866
  
- Appendix 1 Gilcrease Museum, catalogue number 4026.312
- Appendix 3 New England Type and Stereotype Foundry. *Specimen of Printing Types from the New England Type Foundry*. Boston, 1834
- Appendix 6 Bass, Althea. "Talking Leaves: John Howard Payne's Story of Sequoyah". In *The Colophon: A Book Collectors Quarterly*, part 9, 1932
- Appendix 7 Columbia University, Houghton Library. Cherokee alphabet, 1835

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