

The Deseret Alphabet in Unicode

Kenneth R. Beesley
Xerox Research Centre Europe
6, chemin de Maupertuis
38240 Meylan, France
Ken.Beesley@xrce.xerox.com

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Abstract

The Deseret Alphabet was an orthographical reform for English, promoted by the Church of Jesus Christ of Latter-Day Saints (the Mormons) between about 1854 and 1875. An offshoot of Pitman phonotypy, the Deseret Alphabet is remembered mainly for its use of non-Roman glyphs. Though ultimately rejected, the Deseret Alphabet was used in four printed books, several unprinted book manuscripts, newspaper articles, journals, meeting minutes, letters and even a gold coin and a tombstone. This paper reviews the history of the Deseret Alphabet and its Unicode implementation.

1 Introduction

In 1868, heavy freight wagons trundled into Salt Lake City, carrying boxes of two new schoolbooks intended for the children of the Territory of Utah. Prosaically entitled *The Deseret First Book* and *The Deseret Second Book*, these little primers would be completely forgotten today were they not written in a non-Roman orthography called the Deseret Alphabet. The next year, *The Book of Mormon*, a book of Mormon scripture, appeared in Deseret Alphabet in two forms: Part I, which consisted of the first third of the text and was intended as an advanced reader, and the full text of 443 pages. No other books were ever printed.

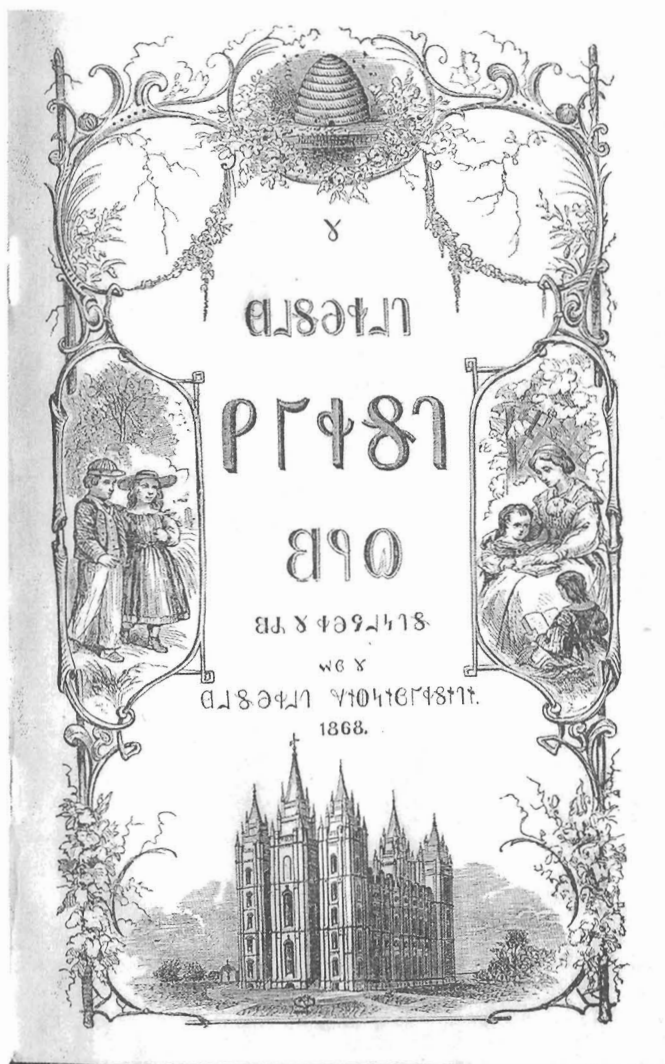


Figure 1: In 1868, *The Deseret First Book*, shown here, and *The Deseret Second Book* were printed by Russell Bros. of New York and shipped to the Territory of Utah. The print run for each book was 10,000 copies.

As can be seen in Figures 1 to 4, the alphabet of the books comprises 38 letters and is bicameral, i.e. the uppercase characters differ from the lowercase versions only in size. In philosophy, the Deseret Alphabet is what phonologists today would call a phonemic alphabet, with one letter for each English phoneme, although the concept of the phoneme and the science of

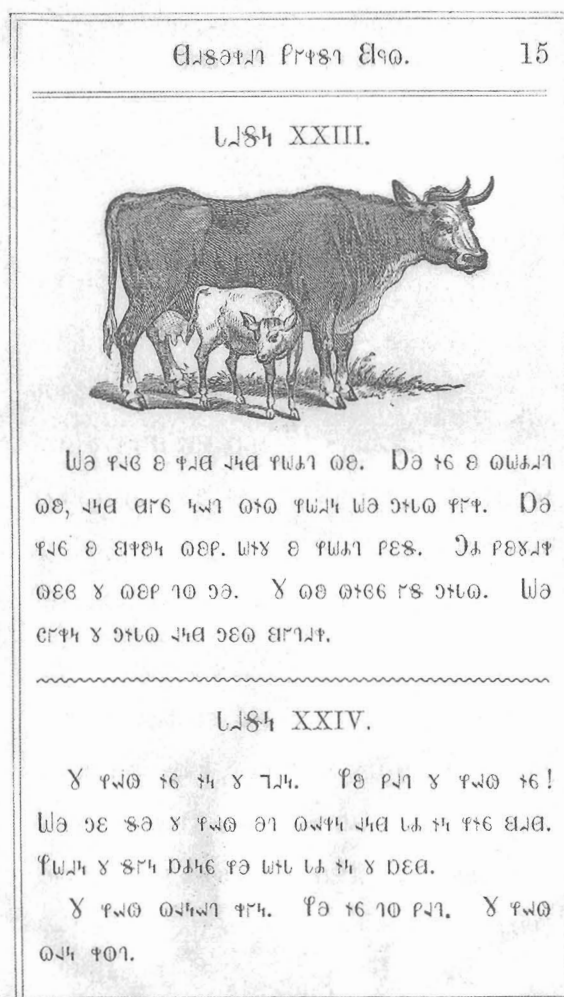


Figure 2: A page from *The Deseret First Book*.

phonology were then imperfectly understood. At the time its promoters called it a “phonetic” alphabet and wrote of letters representing “sounds”, or “simple sounds” or even “elementary sounds”. The left-to-right direction, word spacing, capitalization and punctuation are the same as in traditional English orthography.

The most obvious phonological flaw in the alphabet is the lack of a schwa,

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ᚠ ᚡ ᚢ ᚣ ᚤ ᚥ ᚦ ᚧ ᚨ ᚩ ᚪ ᚫ ᚬ ᚭ ᚮ ᚯ ᚰ ᚱ ᚲ ᚳ ᚴ ᚵ ᚶ ᚷ ᚸ ᚹ ᚺ ᚻ ᚼ ᚽ ᚾ ᚿ

<i>Long Sounds.</i>			Letter.	Name.	Sound.
Letter.	Name.	Sound.	ᚠp	
ᚡ	.....e.....as in.....eat.		ᚢ	.....b	
ᚣ	.....a " ate.		ᚤ	.....t	
ᚥ	.....ah " art.		ᚦ	.....d	
ᚧ	.....aw " aught.		ᚨ	.....che...as in...cheese.	
ᚩ	.....o " oat.		ᚪ	.....g	
ᚫ	.....oo " ooze.		ᚬ	.....k	
<i>Short Sounds of the above.</i>			ᚭ	.....ga...as in...gate.	
ᚮ	.....as in.....it.		ᚯ	.....f	
ᚰ	" et.		ᚱ	.....v	
ᚲ	" at.		ᚳ	.....eth...as in...thigh.	
ᚴ	" ot.		ᚴ	.....the " thy.	
ᚵ	" ut.		ᚵ	.....s	
ᚶ	" book.		ᚶ	.....z	
ᚷ	.....i.....as in.....ice.		ᚷ	.....esh...as in...flesh.	
ᚸ	.....ow " owl.		ᚸ	.....zhe " vision.	
ᚹ	.....woo		ᚹ	.....ur " burn.	
ᚺ	.....ye		ᚺ	.....l	
ᚻ	.....h		ᚻ	.....m	
			ᚼ	.....n	
			ᚽ	.....eng.as in...length.	

Figure 4: The 1868-69 Book Version of the Deseret Alphabet consisted of 38 letters, with uppercase and lowercase characters distinguished only by size.

being artificial and influenced by traditional English orthography.

The First Book sold for 15 cents, the Second Book for 20 cents, Part I of *The Book of Mormon* for 75 cents, and the full *Book of Mormon* for \$2. Or, more to the point, they didn't sell. The Deseret Alphabet soon joined a long

modern linguists. IPA representations in this paper will be shown between slashes, e.g. /fə'netɪk/.

list of failed spelling reforms for English.

Jumping to 2001, the Deseret Alphabet was added to Unicode 3.1 in the surrogate space 10400-1044F,² sponsored by John H. Jenkins of Apple Computer.³

I'm going to give an overview of the history of the Deseret Alphabet, showing the series of proposals and experiments that led to the printing of the primers and *The Book of Mormon*. This is an area of current research, and old documents both in and about the Deseret Alphabet continue to come to light, providing a unique view of the deliberations that went into the design and promotion of a new orthography. Along the way, I'll try to answer the obvious questions: Why were the Mormons promoting an orthographical reform? And why did they adopt non-Roman glyphs, a practice that made the texts opaque to most people and which continues to raise suspicions about secrecy even today?

While the Deseret Alphabet was perhaps not a high-priority script for Unicode, I hope to show that it was a completely serious attempt at orthographical reform, that it really was used by a number of people, who left behind a surprising range of texts interesting to linguists and historians, and that the Deseret Alphabet entirely satisfies Unicode's membership criteria. But lest things get too serious, I will also show how the Alphabet survives in popular memory and culture today, including playing a key role in an outrageous 1994 science-fiction film entitled *Plan 10 from Outer Space*. Finally, getting serious again, I will argue that the current Unicode implementation needs to be augmented slightly to encode some early Deseret manuscripts that used 39- and 40-letter versions of the Alphabet.

2 The Pitman Movement

To begin, it's impossible to understand the Deseret Alphabet without knowing a bit about two nineteenth-century orthographic reformers, Isaac Pitman (1813–1897) and his little brother Benn (1822–1910). The Deseret Alphabet experiment, far from being an isolated Mormon aberration, was influenced from beginning to end by the Pitman movement, at a time when many spelling reforms were being promoted.

²<http://www.unicode.org/charts/PDF/U10400.pdf>

³<http://homepage.mac.com/jenkins>

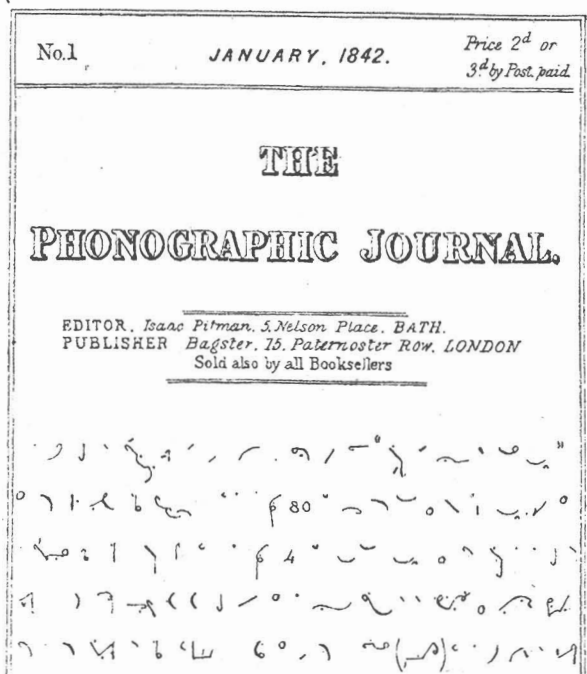


Figure 5: Early Pitman phonography.

2.1 Pitman Shorthand or Phonography

There have been hundreds of systems of stenography, commonly called shorthand, used for English; but Isaac Pitman's system, first published in his 1837 *Stenographic Sound-hand* and called "phonography",⁴ was soon a huge success, spreading through the English-speaking world and eventually being adapted to some fifteen other languages. Modern versions of Pitman shorthand are still used in Britain, Canada, and in most of the cricket-playing countries; in the USA it was taught at least into the 1930s but was eventually overtaken by the Gregg system.

The main goal of any shorthand system is to allow a trained practitioner, called a "reporter", to record speech at speed, including trial proceedings,⁵ parliamentary debates, political speeches, sermons, etc. Pitman's phonography, as the name implies, differs from most earlier systems in representing

⁴In 1839 he wrote *Phonography, or Writing by Sound, being also a New and Improved System of Short Hand*.

⁵In modern parlance we still have the term *court reporter*.

sounds (i.e. phonemes) rather than orthographical combinations. Simplicity and economy at writing time are crucial: most letters are reduced to straight lines and simple curves. The “outline” of a word, typically just a string of consonants, is written as a single connected stroke, without lifting the pen. Voiced consonants are written as thick lines, their unvoiced counterparts as thin lines, which requires that a Pitman reporter use a nib pen or soft pencil. Vowels are optional diacritic marks added above and below the consonant strokes; one is struck by the similarities to Arabic orthography. In advanced styles, vowels are left out whenever possible, and special abbreviation signs are used for whole syllables, common words, and even whole phrases.

2.2 Pitman Phonotypy

Isaac Pitman became justifiably famous for his phonography. With help from several family members, he soon presided over a lecturing and publishing industry with a phenomenal output, including textbooks, correspondence courses, dictionaries, journals, and even books published in shorthand, including selections from Dickens, tales of Sherlock Holmes, *Gulliver's Travels*, *Paradise Lost*, and the entire *Bible*. But while phonography was demonstrably useful, and was both a social and financial success, Pitman's biographers [13, 12, 2] make it clear that his real desire and mission in life was not phonography but *phonotypy*,⁶ his philosophy and movement for reforming English orthography, the everyday script used in books, magazines, newspapers, personal correspondence, etc.

The first phonotypy alphabet for which type was cast was Alphabet No. 11, demonstrated proudly in *The Phonotypic Journal* of January 1844 (see Figure 6). Note that this 1844 alphabet, like the 1868 Deseret Alphabet shown in Figure 4, is bicameral, sometimes characterized as an alphabet of capitals. The letters are stylized, still mostly recognizable as Roman, but with numerous invented, borrowed or modified letters for pure vowels, diphthongs, and the consonants for /θ/, /ð/, /ʃ/, /ʒ/, /tʃ/, /dʒ/ and /ŋ/.

The goals of general spelling reform, to create a new book orthography, are quite different from those of shorthand. While shorthand is intended for use by highly trained scribes, a book orthography is for all of us and should be easily learned and used. Where shorthand requires simplicity, abbrevia-

⁶According to one of Pitman's own early scripts, which indicates stress, he pronounced the word /fo'ntipi/.

ADDRESS TO THE MEMBERS OF THE CORRESPONDING SOCIETY. 3

ADRE'S

TU AU MEMBURZ OV AU "FONOGRAFIK KORESPONDIH SOSA'ETH,"
AND AU SUBSKRABURZ TU AU FONETIK FENT.

DIR FRENZ,—IT IZ WIA PLE'ZURABIL FELIHZ OV NU O'RDINURI KAND
DAT A ADRE'S U IN FONOTIPI, AND AUS OFUR U AU RIZU'LT OV AU FURST
EKSPERIMENT MED WIA AU FENT HWIC UR LIBURA'LITE HAZ ENEBILD
MI TU PROVA'D. TU U WIL FUGER EJIZ LUK, AZ BIH, UNDER DIVA'N
PROVIDENS, AI INTRODUSERZ OV A KOREKT MOD OV RATH AND
PRINTI: AI INSTRUKTURZ OV AU SIVILAZD WURLD IN AU TRU
PRINSIPILZ OV DAT ART HWIC IZ AU MENSPIH OV SIVILIZE'SUN:
AI IMA'NSIPETERZ OV AI INFANT MAND FROM AU GOLIH CENZ OV AU
PREZENT SISTEM OV OROOGRAFI: AND AI ELIVETURZ OV AU GRET MAS
OV MANK'ND FROM AU LOEST DEPOS OV I'GNORANS AND SUPERSTI'SUN
TU AU PLEZURZ OV SAENS, AND AU DILA'TS OV VERUW.

Figure 6: In January 1944, Pitman printed the first examples of his phonotypy. This Alphabet No. 11, and the five experimental variants that followed it, were bicameral, with uppercase and lowercase characters distinguished only by size.

tion and swiftness of writing, varying with the reporter's skill and experience, a book orthography should aim for orthographical consistency, phonological completeness and ease of reading. Finally, a book orthography must lend itself to esthetic typography and easy typesetting; Pitman's phonographic books, in contrast, had to be engraved and printed via the lithographic process.⁷

Pitman saw phonography chiefly as the path leading to phonotypy. His articles in the phonographic (shorthand) journals frequently pushed the spelling reform, and when invited to lecture on phonography, he reportedly managed to spend half the time talking about phonotypy. Through the rest of his life, Pitman proposed a long series of alphabetic experiments, all of them

⁷Starting in 1873, Pitman succeeded in printing phonography with movable type, but many custom outlines had to be engraved as the work progressed.

Romanic, trying in vain to find a winning formula.

Astonishingly, Pitman's phonotypic publications include not only his phonotypic journals but dozens of books, including again the entire *Bible* (1850). But in the end, phonotypy never caught on, and the various printing projects, including the constant engraving and casting of new type, were "from first to last a serious financial drain" [2]. In 1894, a few years before his death, Pitman was knighted by Queen Victoria for his life's work in phonography, with no mention of his beloved phonotypy.

Today Pitman phonotypy is almost completely forgotten, and it has not yet found a champion to sponsor its inclusion in the Unicode standard. But Pitman was not alone—by the 1880s, there were an estimated 50 different spelling-reforms under the consideration of the English Spelling Reform Association. This is the general nineteenth-century environment in which the Deseret Alphabet was born; lots of people were trying to reform English orthography.

Although the influence of Pitman phonotypy on the Deseret Alphabet movement was well understood by Monson [9, 10], most other writers have misunderstood or underestimated it, or have even confused phonography and phonotypy. I hope to show that the Mormon nineteenth-century experiments in spelling reform started and ended with Pitman phonotypy, and that the decision to adopt non-Roman glyphs, in what became the Deseret Alphabet, only barely won out over adopting a variation of the famous 1847 Alphabet devised by Isaac Pitman and phonetician Alexander J. Ellis [8]. Once adopted, the Deseret Alphabet was modified several times and was almost abandoned, several times, in favor of Pitman alphabets.

3 The Mormons Discover the Pitman Movement

The Church of Jesus Christ of Latter-day Saints ("Mormon") was founded in 1830 in upstate New York by Joseph Smith, a farm boy who claimed to have received a vision of God the Father and Jesus Christ, commanding him to restore the true Church of Christ. He also testified that he received from an angel a book, engraved on golden plates, that he translated as *The Book of Mormon*. His followers, who revered him as a prophet, grew rapidly in number and soon, following the western movement and spurred by religious

persecution, they migrated from New York, to Ohio, to Missouri and then to Illinois, where in 1839 they founded the city of Nauvoo on the Mississippi River.

Missionary work had started immediately, both at home and abroad, and in 1837, the same year that Pitman published his *Phonographic Sound-hand*, a certain George D. Watt was baptized as the first Mormon convert in England. Despite an unpromising childhood, which included time in a workhouse, young George had learned to read and write; and between the time of his baptism and his emigration to Nauvoo in 1842, he had also learned Pitman phonography. The arrival of Watt and other Pitman phonographers in Nauvoo revolutionized the reporting of meeting minutes, speeches and sermons. Other converts flowed into Nauvoo, so that by 1846 it became, by some reports, the largest city in Illinois, with some 20,000 inhabitants.

But violence broke out between the Mormons and their “gentile” neighbors, and in 1844 Joseph Smith was assassinated by a mob. In 1845, even during the ensuing confusion and power struggles, Watt gave phonography classes; one notable student was Mormon Apostle Brigham Young. Watt was also President of the Phonographic Club of Nauvoo [1]. In addition to phonography, Watt was almost certainly aware of the new phonotypic spelling reforms being proposed by Pitman, and it is likely that he planted the idea in Brigham Young’s mind at this time.

In 1846, Watt was sent on a mission back to England. The majority of the Church regrouped behind Brigham Young, abandoned their new city to the mobs, and crossed the Mississippi River to spend the bleak winter of 1846-1847 at Winter Quarters, near modern Florence, Nebraska. From here Brigham Young wrote to Watt in April 1847:⁸

It is the wish of the council, that you procure 200 lbs of phonotype, or thereabouts, as you may find necessary, to print a small book for the benefit of the Saints and cause same to be forwarded to Winter Quarters before navigation closes, by some trusty brother on his return, so that we have the type to use next winter.

The “phonotype” referred to is the actual lead type used for phonotypy. The Saints, meaning the members of the Church, were still in difficult times—600 would die from exposure and disease at Winter Quarters—and while there

⁸*Latter-day Saints’ Millennial Star*, vol. 11, 1847, p. 8.

is no record that this type was ever delivered, it shows that the Mormons' first extant plans for spelling reform involved nothing more exotic than an off-the-shelf Pitman phonotypy alphabet.

It is not known exactly which Pitman alphabet Brigham Young had in mind in April 1847—Pitman's alphabets went through no fewer than 15 variations between January 1844 and January 1847,⁹ and Brigham Young's information may well have been out of date. It is especially interesting to compare the chart of Pitman's "Phonotypic Alphabet.—No. 15" (see Figure 7), presented in *The Phonotypic Journal* of October 1844,¹⁰ with the Deseret Alphabet charts in the books of 1868-69 (see Figure 4).

Alphabet No. 15 marked Pitman's abandonment of the stylized "capital" alphabets, and his adoption of more traditional uppercase vs. lowercase glyphs, which he called "lowercase" or "small letter" alphabets. This particular Pitman alphabet contained 41 letters, including a pure vowel /ɜ/ as in *cur* or *bird*, never distinguished in the Deseret Alphabet,¹¹ and dedicated letters for the diphthongs /ɔʰ/ and /jʉ/, which were represented in the book version of the Deseret Alphabet by the digraphs ʌ† and †⊙, respectively. Despite these differences, the similarities in ordering and layout are obvious. As we shall see, earlier versions of the Deseret Alphabet also provided dedicated letters for the /ɔʰ/ and /jʉ/ diphthongs.

The Mormons started leaving Winter Quarters as soon as the trails were passable, and the first party, including Brigham Young, arrived in the valley of the Great Salt Lake in July of 1847, founding Salt Lake City. Mormon colonists were soon sent throughout the mountain west. They called their new land Deseret, a word from *The Book of Mormon* meaning honey bee. In response to Mormon petitions to found a State of Deseret, Congress established instead a Territory of Utah, naming it after the local Ute Indians. In spite of this nominal rebuff, Brigham Young was appointed Governor, and the name Deseret would be applied to a newspaper, a bank, a university, numerous businesses and associations, and even a spelling-reform alphabet. The name Deseret, and the beehive symbol, remain common and largely secularized in Utah today.¹²

⁹*The Phonetic Journal*, vol. 7, no. 1, 1848 pp. 9-19.

¹⁰*The Phonotypic Journal*, vol. 3, no. 35, Oct. 1844.

¹¹This vowel /ɜ/ as in *bird* was proposed for a revised Deseret Alphabet by George D. Watt in a letter to Brigham Young, 21 August 1854, but Watt's proposals were not accepted.

¹²Ivins [7] cites a 1932 cigar stand named "Deseret", and a Salt Lake bar known as

4 The Path to the Deseret Alphabet

Education was always a high priority for the Mormons, and on 13 March 1850 the Deseret University, now the University of Utah, was established under a Chancellor and Board of Regents that included the leading men of the new society. Actual teaching would not begin for several years, and the first task given to the Regents was to design and implement a spelling reform.

Although serious discussion of spelling reform began in 1850, we will jump ahead to 1853, when the Regency met in a series of meetings leading eventually to the adoption of the Deseret Alphabet. The records of these meetings, including minutes, personal journals, and newspaper accounts, provide a fascinating picture of the birth of a new orthography, and they are still being studied. George D. Watt, who returned from his mission in 1851, served as scribe and kept verbatim shorthand “reports” as well as the summary minutes.

Brigham Young, president of the Church of Jesus Christ of Latter-day Saints and Governor of the Territory of Utah, took a personal interest in the 1853 meetings, attending many and participating actively. All the individual Regents, and some non-Regents, were invited to present orthographical schemes (their own, or some established scheme) to the Board for discussion and consideration.

The records show that on 12 April 1853, John Vance presented his own orthography, which apparently tried to shorten written texts by “amalgamating” multiple letters into single glyphs. He re-pitched his orthography several times during the year, sometimes showing frustration at his inability to get his ideas across.

At the meeting of 27 October 1853, Parley P. Pratt (a Mormon Apostle), Heber C. Kimball (First Counselor to Brigham Young), and George D. Watt (the Pitman reporter) were assigned as a committee to prepare a small school book in a reformed orthography. It seems that at this time they were instructed to propose a Romanic alphabet, keeping as many of the old letters as possible. Reporting for this committee on the 7th of November, Parley P. Pratt presented “Pittman’s [sic] phonotypic alphabet in small letters, comprising forty characters”. Surviving notes, a chart, and subsequent letter-by-letter discussion show that this was none other than the 1847 Alphabet designed by Isaac Pitman and Alexander J. Ellis. See Figure 8.

The Pitman-Ellis 1847 Alphabet appeared to have official weight behind it, but during the meeting of 15 November, Brigham Young called again for

fonetic alfabet.

pyr lon vʒelz..... ε a q θ ω u.
pyr fort vʒelz.... i e α o u u.
compʒnd vʒelz. j σ ʒ υ, y w.
asperit..... h.
consonants..... p b t d ɟ j c g
 f v ṭ ḍ s z ʃ ʒ
 r l m n ŋ.

Figure 8: In November 1853, Parley P. Pratt presented “Pitman’s Alphabet in Small Letters” to the Board of Regents in the form of this chart. These are in fact just the lowercase letters of the 1847 Alphabet devised by Isaac Pitman and Alexander J. Ellis. More stable than Pitman’s other alphabets, it lasted several years and was used to print a newspaper called *The Phonetic News*, the *Bible*, and other books. The 1847 Alphabet was also the starting point for the International Phonetic Alphabet, still used by linguists today. Original in the collection of the LDS Church Library Archives.

the members of the Board to submit more alphabets for consideration. The orthography question was still wide open.

The meeting of 18 November 1853 was a busy one. Daniel H. Wells “presented the phonetic short hand alphabet, and in a neat speech gave his

reasons for so doing”. Ezra T. Benson presented “the old alphabet”, presumably advocating the retention of the traditional 26-letter English alphabet, but with a consistent use of digraphs. Wilford Woodruff presented “the phonetic alphabet for long hand writing and printing with changes made upon /ʃ/, /θ/ and /ð/”. Parley P. Pratt again presented “the phonetic alphabet for writing and printing”. The lean toward this last solution is indicated by the fact that George D. Watt actually wrote the minutes for this meeting in a longhand form of the 1847 Alphabet.

In the meeting of 22 November, a decision was made: the Board would use the 1847 Alphabet as a basis of their new orthography. On the 22nd and continuing on the 23rd, with active participation by Brigham Young, the Board then went into a strikingly businesslike session where each 1847 letter was examined in turn, some glyphs were modified or switched, and names for the letters were adopted. A couple of Pitman letters were simply voted out, namely those for the diphthongs /ɔʰ/ and /jʉ/. The result was a 38-letter alphabet, still very pitmanesque and Romanic. In a display of scribal virtuosity, George D. Watt switches into the just defined orthography for writing the minutes. At the meeting of 26 November, the Regents spent the evening “learning the new alphabet, and practicing upon it on the blackboard”. For the second time (the first was in 1847) the Mormons were about to embark on a Pitman-based spelling reform.

However, no one had anticipated the sudden arrival of Willard Richards at the meeting of 29 November. Second Counselor to Brigham Young, Richards had not attended the previous meetings and was not up to date on the Board’s plans. But when he saw the Board’s new Romanic alphabet on the wall, he could not contain his disappointment. The following excerpts, shown here in equivalent IPA to give the flavor of Watt’s original minutes, speak for themselves:

wi wɔnt e nju ka'nd ɒv ælfæbet, dɪfərɪŋ frɒm ði kɔmpaʊnd mɛs ɒv stɑf ʌpɒn ðæt fɪt.... ðɔz kærækterz me bi ɛmplɔɪd ɪn ɪmpruviŋ ði ɪŋɡlɪʃ ɒrθɔgræfɪ, ðo æt ði sem ta'm, ɪt ɪz æz a' hæv sɑmta'mz sɛd, ɪt sɪmz la'k pɑtɪŋ nju wa'n ɪntu old bɔtɪlz.... a' æm ɪnkla'nd tu θɪŋk hwɛn wi hæv rɪflɛktɛd lɔŋɛr wi ʃæl stɪl mɛk sɑm ædvæns ʌpɒn ðæt ælfæbet, ænd prhæps θro æwe ɔl kærækterz ðæt bɛr mɑtʃ rɪzɛmblɛns tu ði ɪŋɡlɪʃ kæræktɛrs, ænd ɪntrodʒus æn ælfæbet ðæt ɪz ɒrɪʒɪnæl, so fɑr æz wi no, æn ælfæbet ɛnta'rlɪ dɪfərɛnt frɒm ɛnɪ ælfæbet ɪn ju:s.

Some objections were tentatively raised. Daniel H. Wells reported that Brigham Young had already discussed ordering 200 pounds of type for the Board's alphabet. Watt pointed out that his committee had been instructed to keep as many of the old Roman letters as possible. Richards then attenuated his criticism, but renewed his call for a complete redesign, waxing rhetorical:

whɔt hæv ju gend ba' ði ælfæbet ɔn ðæt kɑrd a' æsk ju. ʃo mi
wɑn a'tem, kæn ju pɔɪnt a'ʊt ði fɛrst ædvæntɛdʒ ðæt ju hæv gend
ovɛr ði old wɑn? ... hwɔt hæv ju gend, ju hæv ði sem old ælfæbet
ovɛr ægɛn, onli a fju ædɪʃnəl mɑrks, ænd ðe onli mɪstɪfɑ' ɪt mɔr,
ænd mɔr.

Richards believed fervently that the old letters varied too much in their values, and that keeping them would be a hindrance; a successful, lasting reform would require starting with a clean slate. He also argued for economy in writing time, paper and ink. These arguments would be heard again in the twentieth century from Bernard Shaw.

Brigham Young and the Board of Regents were persuaded, the modified Pitman alphabet was defenestrated, and the first version of a new non-Roman alphabet was adopted 22 December 1853. The Deseret Alphabet was born.

5 Early Deseret Alphabet: 1854–1855

In Salt Lake City, the *Deseret News* announced the Alphabet to its readers 19 January 1854:

The Board of Regents, in company with the Governor and heads of departments, have adopted a new alphabet, consisting of 38 characters. The Board have held frequent sittings this winter, with the sanguine hope of simplifying the English language, and especially its Orthography. After many fruitless attempts to render the common alphabet of the day subservient to their purpose, they found it expedient to invent an entirely new and original set of characters.

These characters are much more simple in their structure than the usual alphabetical characters; every superfluous mark supposable,

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is wholly excluded from them. The written and printed hand are substantially merged into one....

In the new alphabet every letter has a fixed and unalterable sound and every word is spelt with reference to given sounds. By this means strangers can not only acquire a knowledge of our language much more readily, but a practiced reporter can also report a strange language so that the strange language when spoken can be legible by one conversant with the tongue.

THE DESERET ALPHABET.

Long E	3	⊖	⊖	0	00
Short E	∨	4	W	∩	9
I	⊖	W	Y	Y	
P	⊖	∩	⊖	⊖	9
K	⊖	∩	⊖	∩	∩
S	6	⊖	S		
R	∩	9	I	N	

WORDS OF ONE SYLLABLE.

EACH	AIM	AFT	ALL	OATH	OOZE
INK	EDGE	AM	ON	UP	FOOT
EYE	OWL	WOOD	YIELD	HANK	
FLOUGH	BOUGHT	TWIST	DROUGHT		
CHEAT	GRASS	CREEK	GAIN		
PAGE	VERSE	BREATH	THOUGHT		
SAIN'T	ZEST	DISH	AZURE		
RIGHT	LAUGH	ARMON	SING		

Figure 9: Although this broadside is undated, it is almost certainly the chart that Regent Hosea Stout copied into his journal 24 March 1854 [16]. Image courtesy of the Utah State Historical Society. Used by permission.

Type of some kind, perhaps wooden, was soon prepared, and on 24 March 1854 a printed broadside with a chart of the Deseret Alphabet was presented to the Board (see Figure 9). In this early 1854 version of the Alphabet, we

The Deseret Alphabet in Unicode



Alphabet des Mormons
The Mormon Alphabet.

Figure 11: Rémy and Brenchley almost certainly copied this chart from an almost identical one in W. W. Phelps' *Deseret Almanac* of 1855. I show the Rémy chart here only because it is sharper than my copy of the Almanac chart.

Existing texts show that the Almanac version of the Alphabet was current 6 June 1854, when it was used by George D. Watt to report the minutes of a Bishops' meeting on the support of the poor (see Figure 12). In addition, I have seen a letter of introduction, dated 2 August 1854, and two undated letters, all in the same style, and all from Watt to Brigham Young.

For decades students of the Deseret Alphabet, who were acquainted almost exclusively with the texts of the printed books of 1868-69, have reported that the letters were always written separately, that there was no cursive form

The Deseret Alphabet in Unicode

13⁴ uoA sDaa qnq
 5 7. 7. nooas qoA 6² 1854.

apnqst ny nsoy ro oca tms s sista m sraas ush.
 apny nroo uoe oca ro s ex ro n nnu apny qny sra.
 "s spt no oca us 3 sra s arm," . . . uoe sra, sra nra
 sa apny srao.
 s nra no s ush nra us ma sra sra sra.
 apny qny m sra sra roo s ex.
 s 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17,
 ush srao, nra sra sra oca sra ma (ua) uoas us sra sra.
 apny qny sra "sra uoe qny ro nra us s apny, sra
 sra uoas us 3 oca sra no n, sra us sra sra sra.
 7 us s sra no s apny ro nra s sra sra sra uoas, sra
 sra sra sra sra sra sra sra; oca ro sra sra sra oca
 sra sra. us sra sra sra sra sra sra sra sra sra sra

Figure 12: Extract from the minutes of a Bishops' meeting, 6 June 1854, concerning the support of the poor. These minutes, written in a cursive, stenographic style, were prepared by George D. Watt and addressed directly to Brigham Young. LDS Church Library Archives.

of the script. We were dead wrong. The early documents of 1854 and 1855 now show clearly that the Alphabet was written cursively, at least by skilled scribes like George D. Watt and James Henry Martineau; and indeed the demands of cursive writing seem to have influenced the design of several of the letters. In particular, the fussy little loops on the \mathcal{D} (/d/), \mathcal{S} (/s/), \mathcal{G} (/g/), \mathcal{O} (/o/) and \mathcal{A} (/a^u/) were used to link these letters with their neighbors.

In addition, these early documents are written in a distinctly stenographic style. Watt writes the outline of each word cursively, without lifting the pen. Short vowels, shown smaller than the other glyphs in the chart, are incorporated into the linking strokes between the consonants. The writer has to go back and cross the \dagger vowels after finishing the outline; and often short vowels are simply left out.

Letters are often joined together with virtuosity, amalgamating them together to save space, but at the expense of legibility. Another lamentable characteristic of the early style is the inconsistent use of letters, sometimes

to represent their phonemic value and sometimes to represent their name. Thus Watt writes *people* as the equivalent of /ppl/, expecting the reader to pronounce the first p-letter as /pi/, that being the letter's conventional name when the alphabet is recited. Similarly, Watt can spell *being* as the equivalent of just /bŋ/, the letters having names pronounced /bi/ and /iŋ/ respectively. While probably seen by shorthand writers as a clever way to abbreviate and speed their writing, the confusion of letter names and letter values is a mistake in any book orthography.

After some months of practice with the new alphabet, George D. Watt was unhappy with his own creation. "I candidly confess that I never did like the present construction of the alphabet," he wrote to Brigham Young,¹⁴ citing problems for legibility, handwriting, and eventual typesetting. In a new proposal, he rejected the principle of amalgamation, but non-Roman glyphs and cursive handwriting were still central features. He proposed new glyphs for over a dozen letters, and by representing diphthongs and affricates as digraphs, and by eliminating the letters for /j/ and /w/ (making the letters for /i/ and /u/ do double-duty), he reduced the alphabet's inventory from 40 to 33 letters.

Watt's 33-letter Deseret Alphabet variation was never adopted, but it shows once more how closely the Mormons were following Pitman phonotypy. At the end of his proposal, he compares the current 40-letter 1854 Deseret Alphabet and his proposed 33-letter Deseret modification side by side, using the First Psalm as his text; and for further comparison he adds "a specimen of Mr Pittmans system of long hand writing"—a specimen that he writes in the 32-Letter Alphabet that Isaac Pitman had been promoting since 1853. Watt's modified phonemic inventory and digraphs mirror Pitman's in all details except that he provided a new letter for the vowel in *bird*, giving him 33 as opposed to Pitman's 32 letters.

There are records of the Regents traveling through Mormon settlements to teach the new Alphabet, and evidence that it caught on a bit in southern Utah. One particularly solid piece of evidence in Cedar City is the tombstone of John T. Morris, who died February 20, 1855, carved almost completely in the Deseret Alphabet except for his Welsh birthplace, Lanfair Talhairn.

At some point, probably after the sandstone was wearing away, the stone was replaced; touchingly, part of the Deseret inscription was reproduced,

¹⁴Letter, 21 August 1854, G. W. Watt to Brigham Young, LDS Church Library Archives.



Figure 13: The original sandstone headstone of John T. Morris, who died 20 February 1855. Photo courtesy of the Utah State Historical Society. Used by permission.

although with four errors.¹⁵

The Brigham Young University Library also holds some 1855 Deseret Alphabet meeting records from the Stake (diocese) of Parowan,¹⁶ in southern Utah, written by James Henry Martineau. I have transcribed the early Watt letters described above, and the Parowan records were transcribed by J. Robert Bingham in 1981. Both of us can testify that they are a hard read, involving an archaic form of the Alphabet, the amalgamation of letters, ambiguities caused by the linking strokes, the omission of some short vowels, and inconsistencies resulting from the confusion of letter values and their names.

¹⁵ \mathcal{P} (/f/) is substituted for the original \mathcal{V} (/v/) in the word *of*; \mathcal{S} (/z/) is substituted for the original \mathcal{S} (/s/) in the word *Morris*; and the \mathcal{O} (/o/) letters in *John* and *born* are replaced with \mathcal{O} (/o/) letters. The thin loop that distinguishes \mathcal{O} from \mathcal{O} is difficult to see even in the original. Similar thin loops are left off the \mathcal{D} (/d/) letters in *died*, but this causes no confusion with other letters; one such \mathcal{D} loop is missing even on the original stone.

¹⁶Brigham Young University Library, Special Collections



Figure 14: The replacement gravestone of John T. Morris, with part of the original Deseret Alphabet inscription copied. Photo by the author, circa 1977.

In September 1855, adventurers and travel writers Jules Rémy and Julius Brenchley reached Salt Lake City and later published a description of their trip [14]. Though from the start ill-disposed toward the Mormons, they were pleasantly surprised by their friendly reception and proved fairly even-handed observers.¹⁷ Here is what they wrote about the early Deseret Alphabet:

The only discovery of which the University of Deseret can claim the honor, is that of an alphabet composed of forty characters, as simple as they are inelegant. Some persons have supposed that the object of this alphabet was to prevent access to the Mormon books and writings; but it is more probable that the only thing intended was to simplify the reading of the English language by establishing a determinate and uniform relation between the sign

¹⁷Of Joseph Smith, whom they never met, they wrote, “he was, to the whole extent of the word, a cheat and impostor”. They did meet Brigham Young, concluding that “the actual Prophet is neither the associate nor the accomplice of the great juggler Joseph, but that, on the contrary, he is honestly and sincerely the dupe of sacrilegious imposture”.

and its sound; in fact, a *phonetic* alphabet. The new characters, intended for the printing-presses of Salt Lake, were cast at St. Louis;¹⁸ but up to this day nothing has been published, as far as we know, with these singular types. We have known them used in private correspondence, and seen them on some shop signs.

The reform was moving a bit slowly. On 4 February 1856 the Regents appointed George D. Watt, Wilford Woodruff, and Samuel W. Richards to prepare and arrange for the printing of books. Richards' journal shows that they went at it hammer and tongs, working on elementary readers and a catechism intended for teaching religious principles to children.

In 1857, Erastus Snow was sent to St. Louis to procure type, but he abandoned the type and hurried back to Utah when he discovered that President Buchanan had dispatched General Albert Sydney Johnston to Utah with 2500 troops from Fort Leavenworth, Kansas to put down a reported Mormon rebellion and install a new non-Mormon governor. The news of "Johnston's Army" reached Salt Lake City 24 July 1857, when the alleged rebels were gathered for a picnic in a local canyon to celebrate the tenth anniversary of their arrival in Utah. In the ensuing panic, Salt Lake City and other northern settlements were abandoned, and 30,000 people packed up their wagons and moved at least 45 miles south to Provo. The territorial government, including records and the printing press, were moved all the way to Fillmore in central Utah. While this bizarre and costly fiasco, often called the Utah War or Buchanan's Blunder, was eventually solved peacefully, it was another setback to the Deseret Alphabet movement. In particular, the texts prepared by the committee of Woodruff, Richards and Watt were lost; unfazed, Brigham Young told Woodruff to "take hold with Geo. D. Watt and get up some more".¹⁹

6 The Revival of 1859–1860

The period of 1859-60 was a busy one for the Deseret Alphabet. The type was finally available, and on 16 February the *Deseret News* printed a sample

¹⁸The reference to type is either a mistake or an outstanding mystery: type was cast in St. Louis, but not until 1857.

¹⁹*Journal History*, 20 November 1858. The manuscripts were eventually found.

The Deseret Alphabet in Unicode

text of the Fifth Chapter of Matthew. Similar practice texts, almost all scriptural, appeared almost every week to May 1860.

The 1859 *Deseret News* version of the Alphabet had reverted to 38 letters, lacking dedicated letters for the diphthongs /ɔʰ/ and /jʉ/, but the *Deseret News* apologized for the lack of the latter and promised a correction.²⁰ The /e/ glyph in this version was 3, opening to the left; otherwise it was just like the book version (see Figure 4).

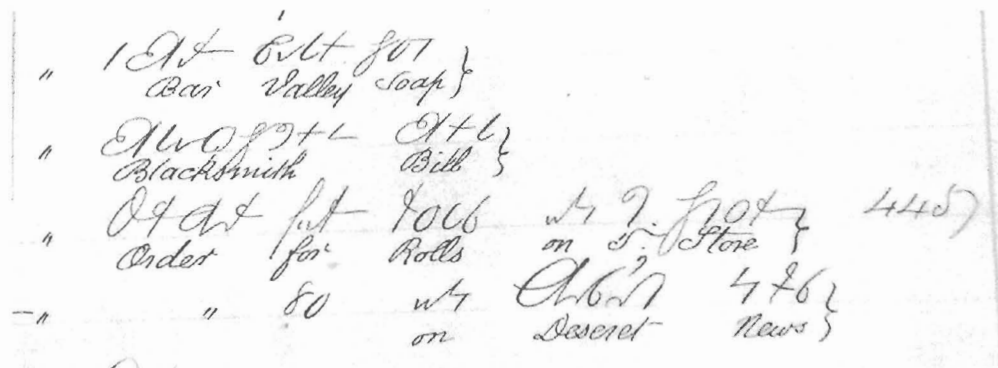


Figure 15: *Ledger C* of 1859-60, probably kept by T. W. Ellerbeck, illustrates a 39-letter version of the Deseret Alphabet. There are still cursive links and amalgamations in this text, but far fewer than in the early texts of 1854-55. Interlinear glosses in traditional orthography were added later. Utah State University.

Brigham Young directed his clerks to use the Alphabet, and the history or biography of Brigham Young was also kept in Deseret Alphabet at this time. One surviving text from this period is the financial “Ledger C”, now held at Utah State University (see Figure 15). This ledger was probably kept by clerk T.W. Ellerbeck who later wrote, “During one whole year the ledger account of President Young were kept by me in those characters, exclusively, except that the figures of the old style were used, not having been changed.” The Ledger C alphabet has 39 letters, including the glyph ʘ for /jʉ/ but using a digraph for /ɔʰ/. The ledger abandons the Alphabet in May of 1860, at the same time the *Deseret News* stopped printing sample articles, and the Deseret text was at some point given interlinear glosses in standard orthography.

²⁰The *Deseret News* also promised a new letter for the vowel in *air*, which was a highly suspect distinction made in some Pitman alphabets.

The Deseret Alphabet in Unicode

An outside witness to this state of the Alphabet was Captain Sir Richard F. Burton, the man who searched for the source of the Nile, translated the 1001 Arabian Nights and the Kama Sutra, and once passed himself off as a Muslim and entered Mecca. Continuing his tour of holy cities he visited Salt Lake City in the summer of 1860 [5] and wrote the following:

One of my favorite places of visiting was the Historian and Recorder's Office, opposite Mr. Brigham Young's block. It contained a small collection of volumes, together with papers, official and private, plans, designs, and other requisites, many of them written in the Deserét alphabet, of which I subjoin a copy. It is, as will readily be seen, a stereographic modification of Pitman's and other systems. Types have been cast for it, and articles are printed in the newspapers at times; as man, however, prefers two alphabets to one, it will probably share the fate of the "Fonetik Nuz."

Burton's reference to "two alphabets" probably means that people prefer having distinct glyphs for uppercase and lowercase characters, and the "Fonetik Nuz" was a short-lived newspaper produced in 1849 by Alexander J. Ellis, using the Pitman-Ellis 1847 Alphabet.

In 1860, the Territory of Utah also minted a \$5 gold piece with ʃOʌʃɪs ʁO ʌ ʌOʃʌ ("Holiness to the Lord") in the Deseret Alphabet (see Figure 16). This inscription, and some of the articles printed in the *Deseret News*, show remnants of the old confusion of letter values and letter names. The word ʃOʌʃɪs , which would be /holms/ in parallel IPA, is expected to be read here as /holmes/ because the name of the ɪ letter is pronounced /es/.

My own favorite document from this era is the Deseret Alphabet journal of Thales H. Haskell, kept from 4 October 1859 to the end of that year while he and Marion J. Shelton²¹ were serving as Mormon missionaries to the Hopis. They were staying in the third-mesa village of Oribe (Orayvi), now celebrated as the oldest continuously inhabited village in North America. Haskell used a 40-letter version of the alphabet, like the contemporary *Deseret News* version, but adding ʃ for /jʉ/ and ʌ for /ɔʃ/. The original manuscript²² is faint and fragile; the following is a sample in typeset Deseret Alphabet and equivalent IPA:

²¹Shelton also kept a journal at this time, partly in Deseret Alphabet, but mostly in Pitman shorthand.

²²Brigham Young University Library, Special Collections

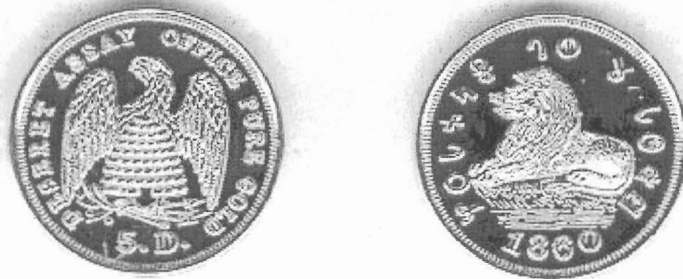


Figure 16: In 1860, the Territory of Utah issued a gold \$5 gold piece with “Holiness to the Lord” stamped in the Deseret Alphabet. This photo is of a reproduction.

᠘ᠠᠨ ᠮᠠ ᠶ᠋᠋᠋ ᠪᠠᠨᠠᠨᠠᠨ [sic] ᠵᠠᠳ ᠰᠢᠨᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ
ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ

gᠠᠮ ᠠᠨ ᠲᠤᠭ ᠪᠡᠭᠮᠠᠰᠲ [sic] ᠠᠨᠳ ᠰᠲᠠᠳ ᠮᠠᠳᠠᠨ ᠠᠨᠠᠨ ᠲᠤ ᠠᠨᠠᠨ
ᠠᠨᠠᠨ ᠲᠤ ᠲᠡᠮ ᠳᠠᠲ ᠠᠨ ᠠᠨᠠᠨ ᠠᠨᠠᠨ

In standard orthography, this reads, “Got up, took b[r]eakfast and sta[r]ted [;] Indian went ahead to Oraib village to tell them that we were coming.” The missing *r* in “breakfast” is just an isolated error, but the spelling of /statid/ for “started” is characteristic; Haskell was from North New Salem, Franklin Country, Massachusetts, and he dropped his *rs* after the /a/ vowel [4].

7 The 1860s and the Printed Books

By 1862, the Deseret Alphabet was dead, except in the determined mind of Brigham Young. When Superintendent of Common Schools Robert L. Campbell presented Brigham Young with a manuscript of a “first Reader” in standard orthography, Young rejected it emphatically:²³ “he would not consent to have his type, ink or paper used to print such trash.”

In 1864, the Regents discussed the adoption of Pitman phonotypy, but the ultimate response was a recommitment to the Deseret Alphabet; the sample

²³Journal History, 22 May 1862

The Deseret Alphabet in Unicode

articles in the *Deseret News* started again defiantly 11 May 1864 and ran to 28 December.

Æ ALFABET

Ov ðe Kapitalz and Smel Leterz.

Ɔ	ɛ	Ɔ	j	F	f
E	ɛ	Ɔ	ɛ	V	v
Ɔ	a	Ɔ	ɛ	H	h
A	ɑ	Ɔ	ɛ	Ɔ	ɛ
Ɔ	ɑ	Y	y	S	s
Ɔ	e	W	w	Z	z
Ɔ	o	H	h	Σ	ʃ
I	i	P	p	Ɔ	ɛ
E	e	B	b	L	l
A	a	T	t	R	r
Ɔ	ɑ	D	d		
O	o	Ɔ	g	M	m
U	u	J	j	N	n
W	u	K	k	Ɔ	ɛ
		G	g		

Figure 17: The 1855 Benn Pitman or American Pitman Alphabet. In 1852, Benn Pitman carried the Pitman stenography and phonotypy movement to the United States, setting up The Phonographic Institute in Cincinnati in 1853.

In December of 1867,²⁴ the Board of Regents, with Brigham Young, resolved unanimously to adopt “the phonetic characters employed by Ben [sic] Pitman of Cincinnati, for printing purposes, thereby gaining the advantage of the books already printed in those phonetic characters....” However, on 3

²⁴Deseret News, 19 December 1867

February 1868,²⁵ the Board once again recommitted to the Deseret Alphabet and started the serious and expensive work of getting books prepared for publication. Apostle Orson Pratt was hired to transcribe *The Deseret First Book* and *The Deseret Second Book*. These books were printed and delivered to Salt Lake City in late 1868, when Pratt had already turned his dogged energy to the transcription of *The Book of Mormon*, which appeared in 1869. As already stated, the books sold poorly.

8 The 1870s: Decline and Fall

By the mid 1870s, the Deseret Alphabet was recognized as a failure even by Brigham Young. The bottom line was that books were expensive to produce, and not even loyal Mormons could be persuaded to buy and study them.

On 2 October 1875 *The Juvenile Instructor*, an official magazine for Mormon youth, laid the Deseret Alphabet to rest.

The Book of Mormon has been printed in the Deseret Alphabet, but President Young has decided that they are not so well adapted for the purpose designed as it was hoped they would be. There being no shanks to the letters, all being very even, they are trying to they eye, because of their uniformity. Another objection some have urged against them has been that they are entirely new, and we should have characters as far as possible with which we are familiar: and they have felt that we should use them as far as they go and adopt new characters only for the sounds which our present letters do not represent.

There is a system known as the [Benn] Pitman system of phonetics which possesses the advantages alluded to. Mr. Pitman has used all the letters of the alphabet as far as possible and has added seventeen new characters to them, making an alphabet of forty-three letters. The Bible, a dictionary and a number of other works, school books, etc., have been printed in these new characters, and it is found that a person familiar with our present method of reading can learn in a few minutes to read those works printed after this system. We think it altogether likely that the

²⁵*Deseret News*, 3 February 1868

regents of the University will upon further examination adopt this system for use in this Territory.

So while the Deseret Alphabet was dead, the Mormons hadn't yet given up on spelling reform. In July of 1877, Orson Pratt was sent to Liverpool to arrange to have *The Book of Mormon* and *The Book of Doctrine and Covenants* printed in the Benn Pitman orthography, "with the exception of two or three characters".²⁶ But in August of that year, after most of the specially ordered phonotype had arrived from London, Brigham Young died; Orson Pratt was called back home, and the Mormons never dabbled in orthographical reform again.

It has been written and repeated many times that "the Deseret Alphabet died with Brigham Young"; however, the Deseret Alphabet had already been dead for years, and what died with Brigham Young was a very serious project, well in progress, to print Mormon scripture in a slight modification of Benn Pitman's "American" phonotypy.

9 Typography

I cannot go here into the speculation and debate on where the Deseret glyphs came from. Suggested sources have included Pitman shorthand, the Ethiopic alphabet and other alphabets printed in a Webster's Unabridged Dictionary,²⁷ and George D. Watt's own imagination [1]. In any case, tradition and all good evidence point to Watt as the man who invented or selected the glyphs for the new Deseret Alphabet. The only worrisome counter-claim comes from Rémy and Brenchley, who state, "To give every man his due, we ought to say that the idea originated with the apostle W. W. Phelps, one of the regents of the University, and that it was he who worked out the letters". However, it is pretty obvious that Rémy copied his chart of the Deseret Alphabet from the *Deseret Almanac* of 1855, which was printed by W. W. Phelps, and this may account for the confusion.

However, being recognized as the designer of the Deseret Alphabet is a dubious honor, for sincere critics, both contemporary and modern, are unanimous in calling it awkward and ugly. Even we Deseretophiles must agree that it's a typographical disaster. Simmonds [15] writes, "Aesthetically

²⁶ *Journal of Discourses*, vol. XIX, p. 112.

²⁷ Letter, T. W. Ellerbeck to Hon. Franklin D. Richards, 24 Feb 1885; see also [11].

it was deadly.” Nash [11, pp. 23–29] lays out in devastating detail how the Deseret Alphabet violates principle after principle of good book type, including the lack of ascenders and descenders. In the words of printing historian Roby Wentz [17], “The result was a very monotonous-looking line of type.”

Watt and the Board of Regents were amateurs in typeface design, and it shows. Sometimes they were led by sincere but misguided principles: I have tried to show that some of the over-complication of some Deseret glyphs, especially the fussy little loops, came from a desire to facilitate cursive writing. When translated into printing type, this over-complication makes for poor legibility at smaller type sizes. Ascenders and descenders (“shanks”, “tops and tails”) were eliminated deliberately in an attempt to create type that would wear longer.

In addition to amateur design, the Deseret Alphabet was also plagued by failures in punch-cutting and/or casting when it came to producing printing type. Some kind of type, perhaps wooden, was produced fairly competently in Salt Lake City to print the broadside of March 1854. It appears that there was at least one abortive attempt in Salt Lake City, by a David Sabins (or Sabin), to cut punches;²⁸ Brigham Young was reportedly unhappy with the results. In 1857, Regent Erastus Snow went to St. Louis to supervise the casting of the type that was eventually used in the *Deseret News* articles of 1859-60; the resulting font was so crude as to suggest sabotage, and *everybody* was unhappy with it.²⁹ The type used in 1868-69 by Russell Bros. of New York³⁰ for the printing of the primers and *The Book of Mormon* is sharp, clean and professionally done, but it cannot compensate for the Alphabet’s basic design flaws; the rigidly upright Bodini typeface with its exaggeration of the difference between thick and thin strokes also strikes the modern eye as quaint at best.

The history of Deseret type-casting and printing still needs attention.

²⁸*Deseret News*, 15 August 1855. Punches are steel rods with the reversed shape of a letter cut into the end using files and gouges. The punch is driven into a copper plate called a matrix, leaving an imprint of the letter; and then the matrices are used in molds to produce lead type.

²⁹Wentz identifies the source as the St. Louis Type Foundry of Ladew & Peer, apparently the only foundry operating in St. Louis at the time.

³⁰Wentz identifies this more fully as “Russell’s American Steam Printing House, located at 28, 30 and 32 Centre Street, New York City, Joseph and Theodore Russell, Props.” Where the punches were cut and the type cast is still unclear.

Wentz's short treatment [17] is fascinating but raises as many questions as it answers. In the summer of 2002, I found a set of steel punches, perhaps the ill-fated Sabins punches, in the LDS Church Library Archives. Perhaps more research will uncover other surviving punches, matrices and type.

10 Who Cares about the Deseret Alphabet?

10.1 Historians

The interest of historians is rather obvious—there are extant letters, diaries, minutes, newspaper articles, histories and ledgers written in Deseret Alphabet, with potentially interesting content, and some of them haven't been studied properly or even read at all for 130 years.

10.2 Linguists

For linguists, the Deseret Alphabet is interesting from several viewpoints. Sociolinguistically, it's a well documented case of a society devising and promoting a new orthography. Lexicographically, one of the missionary documents³¹ includes an early Shoshoni word and phrase list, with some entries provided with pronunciation guides in Deseret Alphabet. Phonologically, the Deseret Alphabet is a phonemic alphabet, and each writer tends to reflect his or her accent as they write.

Several linguists have worked on encoding. Starting with the texts of *The Book of Mormon*, *The Doctrine and Covenants* and *The Pearl of Great Price* in traditional orthography, John H. Jenkins converted them into Deseret Alphabet in 1997 and made the results available as PDF files.³²

The original Deseret Alphabet *Book of Mormon* was scanned and OCR'ed under the direction of Prof. John Robertson of the Brigham Young University Linguistics department, and the text was proofread by Kristen McKendry.³³ This and other original documents should shed light on the accent of the transcriber Orson Pratt and other writers.

³¹Glossary of Isaac Bullock, University of Utah Library, Special Collections.

³²<http://homepage.mac.com/jenkins/Deseret/BoM.html>

³³This project, circa 1985-86, used a Kurzweil scanner, which was trained to recognize Deseret text. However, McKendry reports (personal communication) that the results of the OCR were poor and that the proofreading was so onerous that it might have been easier just to type in the text manually.

I myself have been working on a critical edition of the Thales H. Haskell diary, which recounts the second Mormon mission to the Hopis in 1859-60. You can almost hear Haskell's central-Massachusetts accent as you read.

11 What Significant Texts Survive?

The only printed books in the Deseret Alphabet are *The Deseret First Book*, *The Deseret Second Book*, the *The Book of Mormon, Part I*, and the whole *Book of Mormon*.

In 1967, LDS Church archivists found a bundle of other Deseret Alphabet manuscripts, ready for the typesetter but never printed [18]. These include *The Doctrine and Covenants*, with the *Lectures on Faith*; the *Catechism* of John Jaques; and the entire text of the *Bible*. The LDS Archives also hold the *History of Brigham Young*, several letters, an unfinished *Deseret Phonetic Speller*, journals, and probably many other documents still to be found.

All of these texts need attention from historians and linguists.

12 The Big Questions

12.1 Why the Mormons?

I have tried to show that the Deseret Alphabet was a completely serious and open attempt at English spelling reform, inspired constantly by the Pitman movement. The Mormons were also predisposed to such a reform, practicing a religion with a millennial vision and consciously building a new society from scratch. The religious angle has been explored very competently in other work [7, 10, 1] and will not be repeated here.

However, it is interesting to note that Isaac Pitman was also religiously motivated, being a devoted follower of Emanuel Swedenborg (1688-1772), the Swedish scientist, philosopher, polyglot, generally acknowledged genius, Christian mystic and theologian whose New Church or New Jerusalem continues to have a small following even today.³⁴ Pitman devoted himself to his reforms with religious intensity, and he eschewed alcohol and tobacco, ate no meat, fish or fowl, and opposed vivisection.

³⁴<http://swedenborg.newearth.org/>

12.2 Why Non-Roman Glyphs?

The history shows that the Mormons very nearly adopted a Romanic Pitman alphabet in 1847, again in 1853, a third time in 1864, a fourth time in 1867, and a fifth time in 1877 after the Deseret Alphabet was abandoned. The influence to go non-Roman, in late 1853, came somewhat out of the blue from Willard Richards, who argued that a successful reform would require sweeping out the old alphabet and starting fresh: new bottles for new wine.

In the twentieth Century, George Bernard Shaw held similar views about spelling reform, pointing out that phonemic Roman-based spellings like *hed* for *head*, *alfabet* for *alphabet*, and *woz* for *was* appear ignorant and uncouth to educated people, for whom proper spelling has become a shibboleth. To avoid knee-jerk rejection by the educated, he believed that a successful spelling reform would have to be based on a non-Roman alphabet, and in his will he left money to fund a competition for a new orthography. This led to the Shaw (or “Shavian”) Alphabet of Kingsley Read, which still has a following and has inspired some excellent font designers.³⁵

12.3 Secrecy?

Charges that the Deseret Alphabet was intended to hide information run in two directions: looking inward, by teaching only the Deseret Alphabet to their children, the Mormons could help isolate them from the outside world; looking outward, the Deseret Alphabet could hide Mormon secrets from the gentiles.

12.3.1 Mormon Isolationism?

As for the question of self-isolation, there are a couple of *Deseret News* editorials, waxing eloquent about the benefits of the orthographic reform, that cite the protection of Utah children from the “yellow-colored” literature of the age,³⁶ such as the *Police Gazette*.³⁷ But as Ronald G. Watt [1] correctly points out, you find no such rhetoric in any of the well documented deliberations of the Board of Regents who invented the Alphabet. The Regents, it

³⁵<http://www.simonbarne.com/shavian/>

³⁶*Deseret News*, 13 August 1868.

³⁷*Deseret Evening News*, vol. 2, no. 105, 25 March 1869.

will be remembered, almost adopted a more accessible Pitman alphabet not once but several times.

12.3.2 Hide Secrets from Outsiders?

The second charge, that the Deseret Alphabet was designed to hide Mormon secrets from outsiders, is the more interesting one. The knee-jerk anti-Mormon reaction to the Deseret Alphabet was predictable; seeing the new type, one eastern paper wrote

So the Deseret News will probably hereafter be a profound mystery, at least in part, to all but the initiated.... The ukases of Brother Brigham will hereafter be a sealed letter, literally, to Gentile eyes.

It was even suggested, in an address at a recent Unicode conference, that the Deseret Alphabet was the only script in the whole Unicode set that was designed to obscure information rather than reveal it.

These views have been openly discussed and rejected by all informed students of the Alphabet, including contemporary non-Mormon visitors to Salt Lake City like Sir Richard F. Burton (1860) and the frequently anti-Mormon Jules Rémy (1855). They immediately recognized the Deseret Alphabet as just a variation on Pitman phonotypy. There is simply no evidence that the Deseret Alphabet was intended for secrecy; on the contrary, all available evidence shows that the Mormons were contributing, as best they knew how, to a public, international orthographical reform movement, that they were trying to promote universal literacy.

For internal evidence, one need only look at the subject matter encoded in the Deseret Alphabet. I've seen most of it, and the overwhelming majority is scriptural, including the *Bible*, *The Doctrine and Covenants*, and *The Book of Mormon*, which was actually printed. By 1855 the tirelessly proselytizing Mormons had already translated *The Book of Mormon* into Danish, French, German, Italian, Welsh and Hawaiian, and by the end of 2000 they proudly announced a total of 100 translations, either in whole or in a significant subset known as the Selections. To believe that the Mormons were trying to hide the *Bible*, *The Book of Mormon* and these other books behind a sinister veil of Deseret Alphabet takes a lot of imagination, to put it kindly.

Far from being secret, the Deseret Alphabet was open and promoted publicly, published several times on broadsides and cards, and the key to the

Alphabet appeared right at the front of all the printed books and the practice articles in the *Deseret News*. The *Deseret News* and the ukases of Brigham Young were a closed book only to those who chose to remain ignorant of the Alphabet.

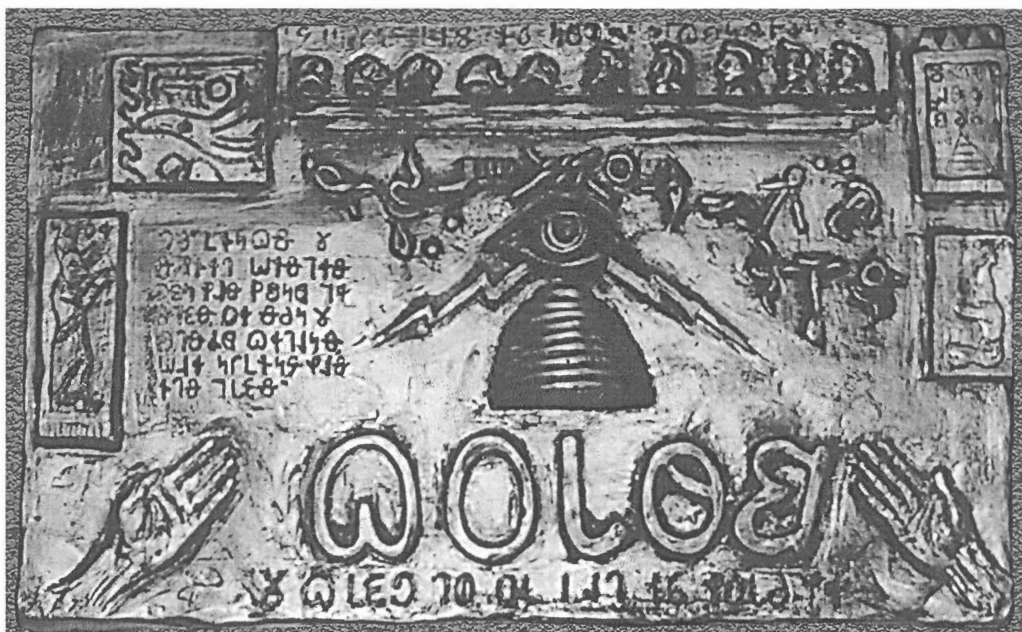


Figure 18: The 1994 film *Plan 10 from Outer Space* features bee-men, a “lost” Deseret Alphabet book, and the mysterious *Plaque of Kolob*, written in Deseret Alphabet and found in a cave by the shore of the Great Salt Lake. Photo courtesy of Trent Harris. Used by permission.

13 The Deseret Alphabet Today

Surprisingly, the Deseret Alphabet continues to pop up today in scholarly work, not-so-scholarly newspaper and magazine articles, and even in popular culture. It’s not as dead as it might appear.

13.1 Trent Harris

The Deseret Alphabet was a thoroughly serious attempt to reform English orthography, but we would be grim people indeed if we couldn’t get a laugh

out of it. And the man who gets the most laughs is Utah author/film-director Trent Harris. The Deseret Alphabet rates an entry entitled “Our Own Damn Alphabet” in *Mondo Utah*, his irreverent collection of “extreme weirdness” coming from the state [6]; and Harris also wrote and directed a 1994 feature-length film, *Plan 10 from Outer Space*,³⁸ featuring beehive-headed cyclops aliens and a strange plaque, written in Deseret Alphabet. In the director’s own breathless words,

It all begins when Lucinda Hall discovers the mysterious *Plaque of Kolob* in a cave near the Great Salt Lake. Her search for its meaning leads her on a strange journey through time and space. She ventures into alien discos, meets the infamous gun-slinger, Porter Rockwell, and confronts space queen, Nehor (Karen Black) from the planet Kolob. Will Lucinda uncover Nehor’s secret plan and decipher the *Secret of the Bees* before it’s too late?

Plan 10 was named “Number one sci-fi film of the year!” by the New York Review of Science Fiction, but it never got much distribution outside of Utah. It’s still available on video, and as you can see from the stills (see Figures 18, 19 and 20), no expense was spared in the production. See it with a Mormon friend who can explain the insider jokes and references.

13.2 Bob Moss

Utah folk artist Rob Moss sings, plays guitar, and reportedly incorporates Deseret Alphabet into his stoneware and wood-burning art. While he somehow has a web page,³⁹ he seems to lack other little things like a telephone or email, so at this writing I’ve not been able to contact him.

13.3 New Books and Fonts

John Jenkins informs me that Brion Zion produced an “activity book”, printed largely in Deseret Alphabet, for Utah’s Centennial celebrations in 1996; I’m still looking for a copy. Zion’s website, which I’ve never been able to reach, included a tutorial and even a song for learning the Deseret letters. He also created a Deseret Alphabet computer font named Beehive.

³⁸<http://www.cc.utah.edu/~ht3597/kolob1.htm>

³⁹<http://www.tech-inc.com/bob/>

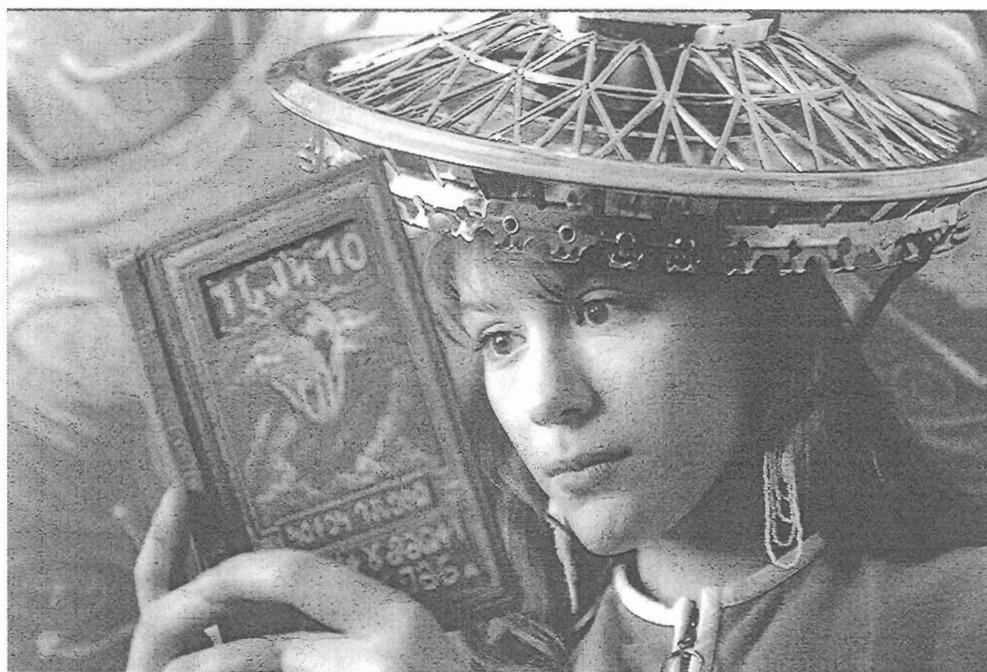


Figure 19: Lucinda must decipher the Secret of the Bees in a “lost” Deseret Alphabet book. Photo courtesy of Trent Harris. Used by permission.

A font named Deseret was reportedly created by Greg Kearney. A webpage⁴⁰ dedicated to Deseret Alphabet fonts is a virtual cemetery of dead links.

Ed Bateman’s font is still available from Trent Harris, director of *Plan 10 from Outer Space*.⁴¹

Jenkins has also designed a font and a Deseret Language Kit⁴² that allows Deseret Alphabet to be typed on Apple computers using operating systems through OS 9; and he’s now working to make his implementation ready for OS X.

⁴⁰<http://cgm.cs.mcgill.ca/~luc/deseret.html>

⁴¹<http://www.cc.utah.edu/~th3597/kolob1.htm>

⁴²<http://homepage.mac.com/jenkins/Deseret/DLK.sea.hqx>



Figure 20: *Plan 10 from Outer Space*: Will our heroine discover *The Secret of the Bees* before it's too late? Photo courtesy of Trent Harris. Used by permission.

13.4 Whatever Happened to the Old Books?

The four books printed in 1868-69 did not sell well, and soon the *Deseret News* was advertising hefty discounts for wholesale purchasers. A couple of writers report that the Deseret University, now the University of Utah, ended up with thousands of the unsold books. I have been unable to confirm this, but there always seem to be a few Deseret Alphabet books available from Utah bookshops; one writer (Wentz) suggests openly that the books are being released judiciously from a “stash”. The books are often advertised proudly as being in excellent condition, though this is one case in which an honestly worn book, with Deseret scribbles in it, would be far more interesting.

In 2002, the going price for a primer, of which 10,000 each were printed, seems to be from \$200 up, with Part I of *The Book of Mormon*, 8,000 copies printed, going for about \$300 up. But only 500 copies of the full *Book of Mormon* were printed, and its price has blasted into Outer Space. In 2002 I saw four-book Deseret sets on sale at \$8000 and \$10,000, and one copy of

the *Book of Mormon* alone sold on Ebay for over \$11,000.

For tourists and those more interested in the Alphabet than in collecting rare books, *The Deseret First Book* has been reprinted in paperback. The text of *The Deseret First Book* has also been keyed in by John Jenkins, and proofread by Michael Everson and by myself. It is hoped that the OCR'ed text of *The Book of Mormon* will be re-encoded in Unicode and made available to linguists in the near future.

14 Status of the Unicode Implementation

The Deseret Alphabet was added to the Unicode standard in 2001 in Unicode version 3.1, through the efforts of John H. Jenkins of Apple Computer. It holds some distinction as the first script proposed for the surrogate space; as Jenkins describes it, “Nobody started to implement surrogates because there were no characters using them, and nobody wanted their characters to be encoded using surrogates because nobody was implementing them.”⁴³ The Deseret Alphabet, being a real but pretty dead script, broke the vicious circle.

The current Unicode encoding handles only the 38-letter version of the Deseret Alphabet used in the printed books of 1868-69. I have argued vigorously⁴⁴ that the encoding needs to be augmented slightly to include the /ɔː/ and /ju/ letters used in some earlier versions of the Alphabet, including the one used in the Haskell journal that I have transcribed. John Jenkins has backed me up⁴⁵ and again deserves the credit for dealing with most of the paperwork and bureaucracy. You have to know the ropes, and care deeply, to sponsor a new script, or a modification to a script, in Unicode. The two new letters are on track for inclusion in Unicode 4.0 next year.

Forty Deseret letters, being 80 characters to cover uppercase and lowercase, represent the full phonemic inventory of the Deseret Alphabet versions that were really used; differences in glyph shape from one version to another can be handled by using different fonts.

⁴³<http://homepage.mac.com/jenkins/Deseret/Unicode.html>,
<http://homepage.mac.com/jenkins/Deseret/Computers.html>

⁴⁴N2474 2002-05-17

⁴⁵N2473 2002-05-17

15 Conclusion

The Deseret Alphabet experiment left behind a corpus of four printed books, numerous printed newspaper articles, printed broadsides and cards, several unprinted manuscripts (including the entire *Bible*), meeting minutes, financial ledgers, journals, letters, a gold coin, and a tombstone. Some of the documents haven't been read for at least 130 years, and current research is revealing a number of long-forgotten texts. These documents are important to historians, sociolinguists, Americanist lexicographers, and especially phonologists, who want to encode the texts and search them for clues to nineteenth-century pronunciation. A set of punches, still to be identified precisely, has also survived.

The Deseret Alphabet is certainly a colorful, unusual and memorable script, but viewed in context it is clearly not the weird or even sinister Mormon plot that some would have us believe. It is not a fantasy script like Klingon; it is not from Outer Space. It was a sincere attempt to reform English orthography, based strongly on the Pitman phonotypy reforms already active in both Britain and the US. The Deseret Alphabet deserves its place in Unicode.

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Corrections to The Deseret Alphabet in Unicode

Kenneth R. Beesley

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Abstract

Since the publication of “The Deseret Alphabet in Unicode” in the Proceedings of the Twenty-second International Unicode Conference, San Jose, CA, 2002, research has continued, prompting the following corrections and clarifications.

1. The Deseret First Book and The Deseret Second Book are often called “primers” today. However, the Regents of the University of Deseret in fact anticipated an even simpler primer that would teach the Deseret Alphabet itself, letter by letter; the school books were generally referred to as “readers”. The manuscript “Deseret Speller” in the LDS Church Archives may have been intended as a primer, but it was apparently never completed and was never published. In the end, a simple alphabet chart was apparently thought sufficient for teaching the Alphabet, making a true primer unnecessary.
2. Section 3. “The arrival of Watt and other phonographers . . .” It is not clear that there were any phonographers other than Watt at this time.
3. Section 3. When this paper was published, I did not have a good chart of the Pitman-Ellis 1847 Alphabet, which had the most influence on the phonemic design of the Deseret Alphabet. A chart is included in my 2004 paper.
4. The “LDS Church Library Archives”, cited a number of times, is now properly called the “LDS Church Archives.”

5. p. 23. “Fort Levenworth” is a misspelling. Should be “Leavenworth”.
6. p. 26. Further research has shown that Marion J. Shelton was the key person in the 1859–60 mission to the Hopi. Shelton was chosen by Brigham Young to learn the language and to devise an orthography for the Hopi language based on the Deseret Alphabet. In December of 2002 I examined an uncatalogued and unidentified “Indian Vocabulary” in the LDS Church Archives, and I was lucky enough to be able to identify it as English-to-Hopi (Orayvi dialect). I argue in another paper, in progress, that this vocabulary was collected by Shelton. Since the 2002 paper was written, several letters by Shelton from Orayvi, most of them in the Deseret Alphabet, have been discovered.
7. p. 27. Orson Pratt was the main person responsible for the Deseret Alphabet transcriptions, but it has now become clear that he employed scribes, including a certain “Annie Smith” (written in Deseret Alphabet, so the spelling in traditional orthography is uncertain) in New York City (or Brooklyn, then a separate city), and two of his daughters in Salt Lake City, one of whom was Larinda Marissa Ross Pratt. The other daughter has not yet been identified. The transcriptions into Deseret Alphabet were, according to instructions from the Regents, based on the pronunciations indicated in Webster’s Unabridged Dictionary. Pratt dismissed some objections to his spellings (by other Regents) by simply citing Webster’s.
8. p. 30. “Bodini” should be “Bodoni”. The steel punches that I saw in the LDS Church Archives in fact turned out to be the St.-Louis/Deseret-News punches rather than the Sabin punches. See the 2004 paper.
9. Sections 10 and 11. Since the 2002 paper was printed, I found the English-Hopi Vocabulary and have been editing it and researching its history. It now appears that there are other transcriptions of Native American words, both in Deseret Alphabet and Pitman shorthand, that need study.
10. p. 32. Pitman’s “New Church” or “New Jerusalem” religion also led him to oppose vaccination.
11. p. 33. Section 12.3 Secrecy. On the issue of whether the Deseret Alphabet was used to isolate Mormon children from outside influences, I still find no evidence that it was every originally *intended* for that purpose by its

designers in 1853. In fact, the vast majority of evidence, as shown in the 2002 paper, is to the contrary.

However, one historian has pointed out that after the Civil War, when US Government attention turned from ending Southern slavery to ending Mormon polygamy, Utah was inundated with gentile reformers, missionaries and teachers. So the Deseret Alphabet may then have been used by some, in Mormon-controlled schools, to isolate the Mormon children from the new gentile influences. That needs to be looked into. The two Deseret News articles that I cite, from 1868 and 1869, suggesting that the Deseret Alphabet would protect Utah children from the “yellow-colored” literature of the age, are in fact late references, post Civil War. (These are the only relevant references that I am aware of.)

But I’m still skeptical. When seen in its 19th-century linguistic context, and properly understood as an offshoot of the Pitman spelling reforms (Phonotypy), the Deseret Alphabet looks overwhelmingly like just another spelling reform, with nothing up its sleeve. It’s all too easy for historians (Mormon or Gentile) who have no understanding of phonology or spelling reform, and no good understanding of the 20-year history of the Deseret Alphabet, to look at the strange Deseret Alphabet characters and assume that the Mormons were trying to hide something.

As pointed out in the 2002 paper, the Mormons almost chose a Roman-based Pitman alphabet in 1847 and in 1853. And it’s becoming increasingly clear that during the 1860s several of the Regents of the University of Deseret were working actively (if discreetly) to discard the unpopular Deseret Alphabet in favor of the Benn Pitman (Roman-based) alphabet. And it appears pretty clear that Brigham Young, for whatever reasons, was the main force behind continuing the Deseret Alphabet, both during and after the Civil War. And, of course, in 1875 the Deseret Alphabet *was* finally abandoned in favor of the Benn Pitman alphabet.

To examine whether the Deseret Alphabet was turned into a tool of isolationism, for some years after the Civil War, will require more research into the nature of the Mormon schools, who controlled them, who attended them, how many Deseret Alphabet books were sold (very few), and what people were saying at the time.

12. Section 13.1. The film “Plan 10 from Outer Space” in fact came out in 1975.

13. p. 38. The prices of the full Book of Mormon have come down since 2002. Booksellers in 2004 are asking \$7500 to \$8000. The copy that I report as sold on EBay for over \$11,000 was not, I am informed, actually sold; over \$11,000 was bid, but that still didn't meet the seller's reserve price.
14. Section 14. Unicode 4.0 added the two extra characters that I argued for; however, they made a poor choice of citation glyphs. See my 2004 paper.