

## LINGUISTICS

# Alphabets and their origins

A new documentary series surveys the inception and evolution of the written word

By Andrew Robinson

**W**ritten communication is among the greatest inventions in human history, yet reading and writing are skills most of us take for granted. After we learn them at school, we seldom stop to think about the mental-cum-physical process that turns our language and thoughts into symbols on a piece of paper or computer screen, or the reverse process whereby our brains extract meaning from written symbols.

The neural correlates of reading remain a mystery to neuroscientists. They once assumed that an auditory pathway in the brain was used for alphabetic symbols and a visual pathway for Chinese characters but have since discovered experimentally that both neural pathways are used together—if in differing proportions—in each instance. Meanwhile, key aspects of writing's development have yet to be demystified by archaeologists and philologists. Was there a single origin, circa 3100 BCE—either cuneiform in Mesopotamia or hieroglyphs in Egypt—or did writing arise in multiple places independently? When and how did Chinese characters, first identified on Shang oracle bones dated to circa 1200 BCE, originate? And what prompted the invention of the radically simple alphabetic principle, circa 1800 BCE, in a script that contains certain signs resembling Egyptian hieroglyphs?

*The Secret History of Writing*—a BBC television series broadcast in three parts, two of which have been adapted as NOVA's *A to Z: The First Alphabet* and *A to Z:*

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Latin alphabetic letter forms matched perfectly the movable metal type used in the first printing presses.

*How Writing Changed the World*—explores these questions and more. Both versions of the series are intelligent, articulate, and visually imaginative, discussing five millennia of writing—by hand, by printing, and by computer keyboard. The programs feature notable scholars of many scripts and cultures, such as Assyriologist Irving Finkel, Egyptologist Pierre Tallet, and Sinologist Yongsheng Chen, interviewed by Lydia Wilson, an academic with expertise in medieval Arabic philosophy and the winning ability to interrogate authorities at their own level while rendering their views broadly understandable and engaging.

The idea for the series grew from a long-standing friendship between writer-director David Sington and calligrapher Brody Neuschwander, who charismatically demonstrates his skill at penning ancient and modern scripts, using materials such as Egyptian papyrus, European parchment, and Islamic paper.

At one point, Neuschwander observes that Latin alphabetic letter forms, unlike calligraphic scripts such as Chinese and Arabic, were ideally shaped for the movable metal type created by Johannes Gutenberg in the 1450s—a technology that enabled the growth of European literacy and the European scientific revolution beginning in the 16th century. The pairing was so ideal, in fact, that the Gutenberg Bible fooled some scholars for centuries, who believed it was handwritten and cataloged it as such. “I think Gutenberg would have been delighted by our confusion, because what he was trying to achieve with the printing of this book was to produce a book, by a new technique, that people

would think was just as good as the manuscripts that they were used to buying and reading,” observes archivist Giles Mandelbrote. He was trying to do “something new that would seem old.”

In another scene, Finkel, a lifelong scholar of cuneiform at the British Museum, avidly dissects a few signs on early clay tablets to explain the rebus principle, which permits the sounds of pictograms, written together, to express the sound of an unrelated, nonpictographic word. Thus, for example, the plainly pictographic Sumerian sign for barley, pronounced “she,” can be written beside the pictographic sign for milk, pronounced “ga,” to create two signs read as “shega,” meaning something like “beautiful.” As Finkel reasonably speculates, rebuses are so “obvious” that they could have been developed in languages anywhere in the world, supporting the hypothesis that writing may have arisen on multiple, separate occasions.

Today, pictography has returned to writing in the form of international transport symbols and computerized emojis. Meanwhile, many young people in China, having become habituated to smartphone writing, are increasingly using the Romanized spelling known as Pinyin (“spell sound”) and, as a result, some no longer know how to write Chinese characters.

Could smartphones, or the internet more generally, eventually lead to a universal writing system, independent of particular languages, like the one envisioned by polymath Gottfried Leibniz in 1698? It is unlikely, in my view, and, according to Wilson, undesirable. “A world of perfect communication is also a world of cultural uniformity,” she cautions. ■

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**A to Z:  
The First Alphabet**  
David Sington, director  
NOVA, 2020.  
54 minutes.

**A to Z:  
How Writing  
Changed the World**  
David Sington, director  
NOVA, 2020.  
54 minutes.

# Science

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