



The Alphabet

The set of characters we use today, the so called Roman Alphabet or Latin script, can be traced to [letter shapes](#) and phonograms used 4000 years ago. Given the range of possible variation, the continuity of shape and sound categories is truly amazing.

The alphabet has been defined as

[meaningless shapes arbitrarily linked to meaningless sounds¹](#)

While this may describe the situation today, it doesn't explain why we use some of the same shapes and sound categories that were used 4000 years ago. If any shape can be connected to any sound, how can you explain the continuity of alphabet features over time involving entirely different languages and in the context of radically different writing systems, e.g., hieroglyphics and syllabaries?



The explanation advanced in this paper is that those who developed and first used ancient alphabets did not share our modern notions - the letters were *not arbitrary* and the shape had to remain [related to the form](#) of the object named by the letter.

The ancient scribes believed that if the name of the letter was **bird** (or avian), then even the shorthand version of this letter had to look something like a bird. While this may have allowed for considerable variation, it certainly reduced the range of possibilities. Figure 1. shows the Egyptian process of simplification from a realistic wall painting of the object named by the letter, to a simplified picture or glyph, to a scribal shorthand abbreviation. The earliest Egyptian bird drawing (ca. 5000 years old), shown above, is even closer to the phonogram we use to day.

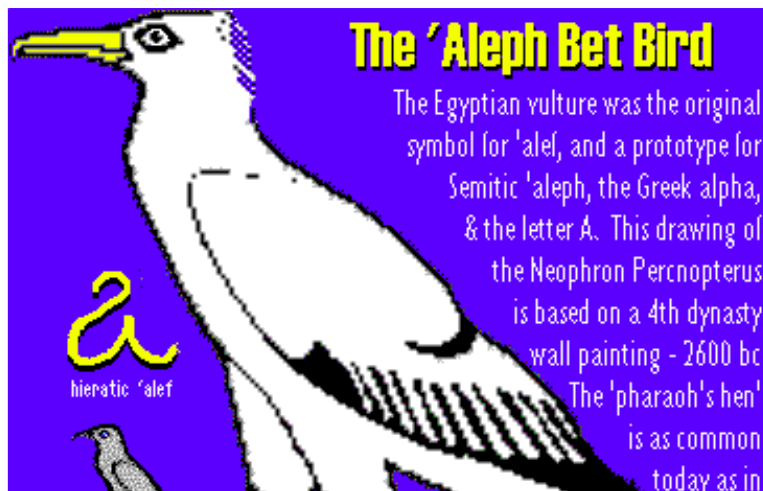




Figure 1. The 'aleph-bet bird as a wall painting and hieroglyph.
Does the hieratic shortand for this glyph, shown above in yellow, resemble our lower case a?

Whether or not all ancient scripts were pictographic in origin is still a debated issue. Most of the debate regards Sumerian cuneiform scripts as there is little doubt about the pictographic heritage of hieroglyphics. A few early cuneiform symbols may have been pictorial but many, according to [Schmandt-Besserat](#), were non-iconic [logograms](#) or arbitrary concept signs from the beginning.

In ancient times, most writing systems went through a picture writing phase which included phoneticizing the picture and using the rebus principle to extend its range. For example, a picture of a **bee** and a **leaf** could be combined to represent a completely unrelated word - ***belief**. The interesting thing about this specific example is that it only works in English.

The next step in the historical development of middle eastern writing systems was for the writing system to use just the initial sound or **acrophone** rather than the entire syllable. Thus ***bee** could stand for /bee/, /bah/, /boe/, /beh/,...and so on. In such a system, the picture of the bee as well, as simplified representations of it, would be an acrophonic pictogram. [Acrophonic pictograms](#) make excellent phonograms because they establish a meaningful connection between the shape of the mark and the associated sound category. The [technique](#) is often used in literacy programs because paired associate learning is easier with a connected picture. [A=avian/apple/ape, B=boot/book, C=cup/cat...](#) The technique would even be more powerful if the name of the associated picture was also related to the letter name and letter shape. In Egyptian and the early Semitic scripts they were.

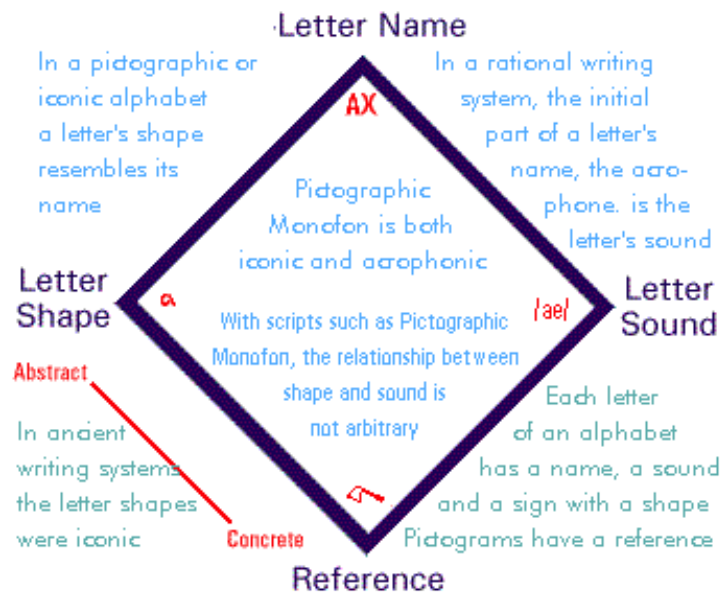


Figure 2. The shape, reference, and sound for the letter *AX

As mentioned earlier, the important thing to observe about the rebus principle and pictograms is that they are **language specific**. Representations and glyphs for the ax and

adze are found in many bronze age cultures. They are rarely, however, associated with the sound /ae/ as shown in Figure 2. Much is made of the stimulus diffusion in the context of the spread of writing systems implying that entire writing systems could have been transplanted. The fact is that one cannot borrow a rebus system. There is no way to borrow someone else's acrophonic pictograms because different languages will normally phoneticize a given picture in different ways. The Akkadians were able to adapt Sumerian cuneiform and the Greeks were able to adapt Cadmean letters because the vestigial iconic aspects of these writing systems were overlooked or ignored.



Pictograms and Logograms

A better explanation for the [differences between pictographic and logographic symbols](#) is provided later. In our number systems the shape of the symbols for 1-3 are less arbitrary than the shapes chosen for 4-9. The symbols, 1, 2, and 3 are pictographic while 7, 8, and 9 are not. The former were derived from the tally marks /, //, and /// which became the basis of the Roman numerals, I, II, and III. The cursive form for these tally marks were usually connected making their shape similar to the letters: I, N, and M. Rotating N and M, produces the familiar 2 and 3 shapes. The shapes for 7, 8, and 9, are called logograms or word signs because the symbol stands for a whole word or concept rather than a sound.

There is a possibility that the 8 has some relationship to the 8th letter in the Greek alphabet (n) eta, /eighth/ which was derived from a Canaanite/Phoenician shape that looked like a squared 8, which may have been based on an Egyptian phonogram with the same /h/ sound which looked like two stacked 8's. The Egyptian reference was a twisted wick of flax used in an oil lamp. The Semitic reference may have been a fence or barrier /cheth/. An English acrophonic equivalent would be "hurdle" which happens to have an H shape. [the etymology of letter shapes.](#)

The confusing thing about this distinction is that pictograms can also stand for unpicturable concepts and/or whole words. As used by the Egyptians, a picture of an eye might refer to the eye itself, the word for eye (ir), a part of the eye (e.g., the pupil [an]), or something related to the eye, e.g., sight. The Egyptians would use various ancillary marks or pictures (semagrams) to cue the appropriate meaning. Nonetheless, getting from a picture of an eye to the concept of an eye full (i.e., beauty) requires a metaphorical leap. There is a connection between the pictogram or ideogram and the idea but on an arbitrariness scale, it would be midway between a representative picture and a completely arbitrary [logogram](#).



The earliest alphabet

Some claim that it was the cuneiform script which in one way or another caused the appearance of writing systems around the Mediterranean, in the Middle East and in India. Sir

Alan Gardiner writes,



"[Hieroglyphic writing](#) was an offshot of direct [pictorial representation](#). In this respect it resembled the original Babylonian script (circa 3200 B.C.) and indeed it is not improbable that there was an actual relationship between them, though it may have amounted to no more than a hearsay knowledge that the sounds of language could be communicated by means of appropriately chosen pictures. The subsequent development, however, differed very considerably in the two cases. Babylonian writing, using cuneiform (wedge-shaped) characters, quickly ceased to be recognizable as pictures, whereas the Eg. hieroglyphs retained their pictorial appearance... By virtue of this fact, the signs continued to mean what they represented." (p. 22f., *Egypt of the Pharaohs*, 1961).

The hieroglyphic writing system died out around 400 A.D. but probably, according to Gardiner and Petrie, lived on in transmuted form, within our own alphabet. In 1905, Flinders Petrie, excavating near the turquoise mines in the peninsula of Sinai, came across a number of inscriptions which appeared to be crude copies of Egyptian hieroglyphics but serving to write another language, probably Semitic. At least six of the 30 signs presented appearances corresponding to the meanings of the letter names belonging to the Hebrew alphabet. The bulls head for '**aleph**', the zigzag waveform for **mem**, and the o-shaped eye for '**ayin**'.

[Gardiner](#) deciphered the string of characters corresponding to B-A-L-T (building, eye, crook, and X mark) as Ba'alat, the name always given by the Semites to the Egyptian goddess Hathor, known to be worshipped at the place where the inscriptions were found. Gardiner concludes, "There seemed little doubt that the origin of the alphabet had been discovered." Since 1905, a number of inscriptions using similar scripts have been found leading most scholars to choose the Proto-Canaanite characters, as the first recognizable form of the alphabet.

During the Middle Kingdom, Egyptian scribes represented foreign place names and the names of prominent people with a limited set of phonetic glyphs. One has to explain why what is now referred to as the "[Egyptian alphabet](#)" was not adopted in the same way the Greeks adopted the Phonician sound signs.

If this had happened, our alphabet today might have looked something like this

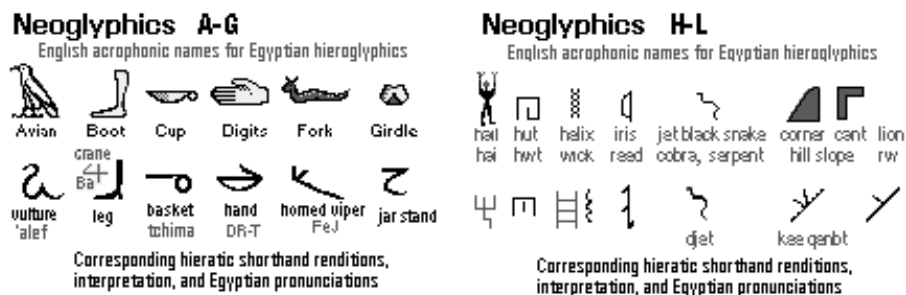


Figure 3. The beginning of an English acrophonic iconic script

- The Egyptian writing system was not always linear. It allowed graphic shapes to be stacked. Wide glyphs tended to be stacked for aesthetic reasons. To be adapted to a purely linear writing system, the forms would have to be narrowed. For example, the forms representing E, F, and K would have to be more upright.

Proto-Canaanite

About 3700 years ago, according to Petrie, West Semitic-speaking people of the Sinai came under Egyptian domination. Just as the Egyptians may have gotten the idea of visible speech from the Sumerians (3200 b.c.), the Semitic speakers may have picked up the idea of what constitutes an alphabet and adopted a few of the Egyptian glyphs to write down the sounds of their own language (ca., 1800 B.C.)



The Semites did not invent any totally new sound categories with the possible exception of /z/. Although they did not make use of very many Egyptian phonograms (**sound signs**), they invented few new picture categories. (Elsewhere Bett argues that the Greek's introduced more novelty in their alphabet than the Semites. This is obscured by the fact that the Greeks retained the name-shape-sound connection in about 50% of their letters compared to less than 10% for the Semites.) The reason for this is often overlooked. The Semites wanted to create their own **pictographic acrophonic alphabet**. This required working out a new set of relationships since pictography is **language specific**. The Greeks were able to borrow both the shape and the sound from the Phoenician and Canaanite scripts because, for them, neither was referential.

Loprieno ([1995](#)), in his recent book, *Ancient Egyptian*, explains the situation as follows: Early Semitic scripts appear to have been modeled after the Egyptian script in two ways: (1) they were pictographic, and (2) and acrophonic. In other words, those who developed the first alphabets and syllabaries constrained themselves in two ways. the letter names were the names of familiar objects and the the sound associated with the letter was the initial sound of the letter's name. In addition, the letter shape resembled the familiar object named by the letter. So both the name and the shape had a reference.

Acrophonic pictograms provide a very efficient means of linking shape and sound. Some of the early success of the Semitic (or Phoenician) alphabet can be attributed to the fact that it could be taught in a week to those who spoke a Semitic language. One can use the same **device** today to quickly teach the Phoenician and Egyptian phonograms. The **device** is also used to teach letter sounds in literacy projects.

The connection between Semitic and Egyptian writing systems has always been a little obscure because the **shape-sound connection was broken**. If one is trying to create a pictographic acrophonic alphabet for a different language, however, this is a necessary step. Pictographic acrophonic alphabets are language specific and have to be rebuilt for every new language.

A new alphabet was required because the Egyptian pictograms, when identified in a Semitic tongue, didn't isolate the right sound. In Egyptian, "hand" began with a /d/ sound. In the Semitic language, hand began with a /k/ as in **kof** or **kaph** or a /y/ as in **yod** or **iod**. In Egyptian, "mouth" began with an /r/ while in Semitic it began with a /p/ as in **peh**. The shape of this letter was either a diamond (S. Semitic) or a candy-cane shaped curve (Canaanite/Phoenician). The diamond shape is clearly a copy of the hieroglyphic for mouth. The crook has been said to resemble a frown. :- (or to keep in acrophonic English, a pout. Chances are

that as the [northern Semitic alphabet](#) developed, less attention was paid to maintaining the pictographic connection.

Between 2000 B.C. and 1000 B.C., the Semites evidently believed that letter shapes had to be iconic and acrophonic. They had to resemble a familiar object and had to be associated with the initial sound in the objects name. The concept of **an alphabet as phoneticized pictograms** seems to have lasted about 1000 years.

When the Greeks adopted the Phonician/Canaanite script starting around 1000 B.C., the notion of what constituted a proper alphabet had changed. Letter names no longer had to be referential. The Greeks kept half of the Semitic names because, for them, the names were meaningless or abstract. **Kaph** became **kappa**, **iod** /i:od/ became **iota**, and **pe** became **pi** /pi:/. The possible exception is **omicron** (literally, little o) which was derived from 'ain or 'ayin. 'Ayin means "eye". The word for "eye" in Greek is *ophthalmo* and in Latin *oculus*.

Since they were unconcerned with having iconic-acrophonic script, the Greeks were able to retain 50% of the sound - shape relationships. The same kind of transition from Egyptian to Semitic (about a 1000 years earlier) mixed up the sound-shape relationships. The Semites used nearly the same sound categories and many of the same shapes and references, but the links were switched around to rebuild an iconic-acrophonic (or pictographic) script.

Over 90% of the Semitic letter shape were borrowed from hieroglyphics, but only 27% were from [Egyptian unliteral glyphs](#). In almost every case, the associated sound was changed.

[\(next page\)](#)



If you have comments or suggestions, email me at sbett@mailcity.com
If you experience any problems with this page, contact the [Webmaster](#)

[Top](#) [Henu-the nature of hieroglyphic writing](#) [Spelling Links](#) [SiteMap](#)