

Origins of the Alphabet

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*Proceedings of the First Polis
Institute Interdisciplinary
Conference*

Edited by

Christophe Rico and Claudia Attucci

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To David Bartholdy

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LIST OF ABBREVIATIONS

English

AD, A.D.	<i>anno Domini</i> , common era (= CE)
ANET	Ancient Near Eastern Texts
ASOR	American Schools of Oriental Research
BAR	Biblical Archaeology Society
BASOR	Bulletin of the American Schools of Oriental Research
BC, B.C.	before Christ (= BCE)
BCE, B.C.E.	before common era (= BC)
BT	Babylonian Talmud
ca., ca	<i>circa</i> , approximately, around
CE, C.E.	common era (= AD)
cf.	<i>confer</i> , compare
ch.	Chapter
Chron	Chronicles
col., cols.	column(s)
d.	Died
Deut	Deuteronomy
Dyn.	Dynasty
ed.	editor, edition, edited
eds.	Editors
e.g.	<i>exempli gratia</i> , for example
esp.	Especially
et al.	<i>et alii</i> , and others
etc.	<i>et cetera</i> , and the rest
Exod	Exodus
Ezek	Ezekiel
##ff.	and following
fig., Fig.	Figure
Gen	Genesis
Hab	Habakkuk
ibid.	<i>ibidem</i> , in the same work
i.e.	<i>id est</i> , that is
insc.	inscription
Isa	Isaiah

JBL	Journal of Biblical Literature
JEA	Journal of Egyptian Archaeology
Jer	Jeremiah
Josh	Joshua
Jud	Judges
lit.	Literally
n.	[foot]note
Nah	Nahum
NJPS	New Jewish Publication Society [of America]
no.	Number
Num	Numbers
p., pp.	page(s)
pl., Pl., pls.	plate(s)
Prov	Proverbs
Ps	Psalms
rev.	revised [edition]
Sam	Samuel
s.d.	<i>sans date</i> , no date
s.l.	<i>sine loco</i> , without place [of publication]
s.n.	<i>sine nomine</i> , without [publisher] name
trad. it.	<i>traduzione italiana</i> , Italian translation
vol.	Volume
Zech	Zechariah

Français

a.C.	<i>ante Christum</i> , avant Jésus-Christ
apr. J.-C.	après Jésus-Christ
ARET	<i>Archivi Reali di Ebla – Testi</i>
av. J.-C.	avant Jésus-Christ
ca., <i>ca</i>	<i>circa</i> , approximativement, environ
Cad	<i>Chicago Assyrian Dictionary</i> , Dictionnaire Assyrien de
Chicago	
cf.	<i>confer</i> , comparer
CNRS	Centre national de la recherche scientifique
col.	colonne
EBAF	École Biblique et Archéologique Française de Jérusalem
éd.	éditeur
<i>et al.</i>	<i>et alii</i> , et d'autres
etc.	<i>et cetera</i>
ex.	exemple

fig., Fig.	figure
Gen.	Genèse
i.e.	<i>id est</i> , c'est-à-dire
IFAO	Institut Français d'Archéologie Orientale [du Caire]
insc.	inscription
Is	Isaïe
Jb	Job
J.-C.	Jésus-Christ
l., ll.	ligne(s)
Lev.	Lévitique
médio-bab.	médio-babylonien
n.	Note
n ^o , n ^{os}	numéro(s)
p., pp.	page(s)
partic.	particulièrement
pl., Pl.	planche
ROSAPAT	Rome " <i>La Sapienza</i> " <i>Studies on the Archaeology of Palestine & Transjordan</i>
##s(s)	[et] suivante(s)
s.	siècle
sec.	<i>secolo</i> , siècle
spéc.	spécifiquement
v.	verset
vieux-bab.	vieux-babylonien
vol., vols.	volume(s)

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INTRODUCTION

Although writing has independently arisen multiple times in different regions of the world (e.g., Egypt, Sumer, China, and Mexico), the alphabet holds a unique position in the history of writing. Possibly all known alphabets can be traced back to a single source, of which the earliest documented evidence can be dated to 1900–1850 BC, somewhere between Egypt and Phoenicia. To a certain extent, scholars can answer the question of *how* the alphabet came about. It remains much more difficult to understand the motivation for its origin: *Why did it come about?*

In February 2013, Polis – The Jerusalem Institute of Languages and Humanities¹ invited some of the leading experts on the origins of the alphabet to an interdisciplinary debate in Jerusalem on this topic. Even if the birth of the alphabet has many times been the subject of international conferences and symposia, studies offering a linguistic, sociological, or psychological perspective on the development of writing can be counted on the fingers of a single hand.² Although interdisciplinary dialogue is always necessary, specialists from the relevant disciplines rarely engage in dialogue with each other. Gone are the years when scholars in the humanities could maintain a general outlook on disciplines related to theirs and seek out opportunities for synthesis of traditional issues.

In 1919, Antoine Meillet, then professor of comparative grammar at the Collège de France, published the short but enlightening article *La langue et l'écriture* on the origin of the alphabet.³ Meillet was inspired by a study on the development of hieroglyphic script that was published in the same journal some months before.⁴ In his own article, Meillet proffered the claim that in the course of writing systems' development, each new modification somehow reflects the structure of the language being transcribed. For instance, Chinese nouns, adjectives, and verbs are for the most part not inflected; rather, word order and function words convey the grammatical role of each element in a sentence. According to Meillet, this

¹ Polis – The Jerusalem Institute of Languages and Humanities is located at 8 HaAyin Het Street, 9511224 Jerusalem (www.polisjerusalem.org).

² Brixhe 1991; Rosén 1984.

³ Meillet 1919.

⁴ Moret 1919.

very simple morphology allowed for the development of a purely ideographic Chinese writing system.⁵

By contrast, if a language incorporates significant morphology, then there arises a motivation to transcribe sounds independently of their semantic value. It is for this reason that some ideographic writing systems have developed a collection of signs that represent sounds. For example, the Akkadian script possesses syllabic signs, and the Egyptian writing system has mono-consonantal and poly-consonantal ones.⁶

Furthermore, the semantics of a Semitic language like Phoenician are mainly founded upon triconsonantal roots. For Meillet, this very circumstance explains the development of the first alphabetic system.⁷ Native Phoenicians' knowledge of their language was usually sufficient to guess the vowels of a word once all of its consonants had been written. Only in some cases, in order to avoid ambiguities (for instance by marking long vowels in a word), a sound initially intended to transcribe a consonant began being used to represent a vowel.⁸

Another development accompanied the Phoenician alphabet's application in transcribing the Greek language. Because the vocabulary of the latter was less based upon roots (like Semitic languages) and more on stems, it was necessary for this writing system to represent vowels explicitly. Thus arose the need to mark vowels, as knowledge of the Greek language did not enable even native speakers to guess the vowels of words in context. In order to represent vowels, Ionian Greeks reappropriated several Phoenician signs for consonants that did not exist in Greek.⁹

Despite the simplifications of the synthesis that Meillet offers, his conclusion is enlightening: Structural features in each language have shaped the developmental stages of the writing system that produced the Greek alphabet.¹⁰

Inspired by the interdisciplinary article of Meillet, the 2013 conference on the origins of the alphabet fostered a dialogue among experts from different backgrounds that could shed light upon the conditions favoring the emergence of the alphabet. After each lecture, some thirty minutes were allotted to a discussion among the speakers. The contents of the

⁵ Meillet 1919, 291.

⁶ Meillet 1919, 291–292.

⁷ Meillet 1919, 292.

⁸ Meillet 1919, 292.

⁹ Meillet 1919, 293.

¹⁰ “On voit que c’est la structure de la langue qui a conditionné chaque invention décisive dans le développement de l’écriture.” (Meillet 1919, 293)

discussions were recorded, and summaries of their transcripts follow their respective articles published in these proceedings.

1) In investigating the origins of the alphabet, the first question to be addressed is the exact nature of the relationship between speech and writing. In his article “Parole et écriture,” the French Assyriologist Marcel Sigrist shows that only human beings can speak and write. These two activities must first find their explanation in specific capacities of the human species (“language” and “technique”) before one is able to establish a link between them. Inspired by the works of Jean Gagnepain and René Jongen, Marcel Sigrist shows that writing is a human activity which (re)produces language. Rather than a sign, writing could be defined as an indication of a sign (“un signal de signe”).

It is here necessary to distinguish between nature and culture: Human beings are not dominated by nature but rather try to interpret it. Listening is a cultural (or phonological) activity rather than a natural (or phonetic) one: The hearer tries to interpret what has been heard and to give it a meaning.

One must also distinguish between word and meaning. Words admit several senses according to specific circumstances (“situation de parole”) in which a message is uttered. The verb “to see” will have different senses—“not being blind,” “perceiving with the eyes,” “understanding,” etc.—according to the specific context in which the word is said. Words are thus only a path towards meaning. To speak is to select and utter words in order to express reality as best we can. Each word or sign combines these two elements: sound and sense, phonology and semiology.

The association of sound sequences with meanings is thus a necessary condition for speaking and writing activities. Writing, which consists of “storing away” (“mettre en réserve”) sound and sense, is grounded upon this distinction. When one writes, one records the semantic force of an utterance, and sometimes its phonological value as well. Every script is therefore either semiological or phonological or a mixture of both.

Writing amounts to a technique for signaling that is comparable to signposting. Through signals, words are stored away so that a message can later be reproduced. However, signals are often structurally unfit for the linguistic signs they convey: In many writing systems, neither does the letter consistently correspond to its phoneme nor the character to its word, often requiring readers to decipher the written forms of their languages.

Sumerian and Chinese scripts are semiographic: They record senses (rather than meanings, because *meaning* emerges from the whole context of a message). In its early history, the Sumerian script was also

semiographic. At this time, many elements of the Sumerian language were left without signalization, such as proper and abstract nouns, grammatical words, and morphemes; the significant task remained of signalizing these functional infixes, suffixes, and prefixes that were at first left unrecorded.

Affecting this process, many Sumerian words had several senses: For instance, /mu/ signifies the noun “cook,” the word “year,” and a functional infix. It thus happened that a Sumerian scribe used the character corresponding to one of these senses to refer to another sense that had the same sound. For instance, *mu-hul* means “he destroyed”, where *mu-* is the functional morpheme and *hul* is a verb signifying “to destroy.” In order to signalize the first element, Sumerian scribes used either the character of the cook or that of the year; thus a written character became a phonogram. This gradual process allowed Sumerian scribes to mark all the sounds of their language.

A critical step occurred when Akkadian scribes first tried to record their language, the vocabulary of which, being Semitic, was grounded on triconsonantal roots like *p-r-s* (“divide”) and *r-k-b* (“ride”). When they wished to record such verbs, they noticed that the Sumerian semiogram for “ride” or “divide” usually did not allow the representation of Akkadian verb morphology. Phonography therefore became necessary for recording a sequence like *ra-ka-bu*. Thence semiograms were reappropriated as phonograms as in the case of *mu-*. From then onwards, Assyrian script developed quickly, to such a degree that even the Sumerian script began to incorporate this novel phonographic system.

2) The article of Northwest Semitic epigraphist Aaron Demsky, “The Interface of Oral and Written Traditions in Ancient Israel: The Case of the Abecedaries,” considers the relationship between speaking and writing, which Sigrist discusses at length, and here applies it to the very order of the letters in the abecedaries.

Learning the alphabet by repeating the names of the letters is a major step towards literacy. The abecetary is in fact a literary composition that was orally recited. As seen from their early pictographic forms, most of the letter names go back to the date of the invention of the alphabet, around 1800 BC. However, different traditions are attested for the order of the letters. Thus at Ugarit (14th – 12th centuries BC), besides the standard long thirty-sign alphabet, there are examples of the well-known twenty-two letter *abgad* order, as well as evidence for an *HLHM* order. The Izbet Sartah ostrakon (ca. 1100 BC) also displays an alternative order of the *abgad* with the sequences *het-zain* and *peh-‘ayin*. Furthermore, the Tel Zayit inscription (10th century BC) shows two additional switches in the variations *waw-he* and *lamed-kaf*.

Demsky suggests that the Canaanite twenty-two-letter order is based on a mnemonic song of five groups of semantically related characters that helped students quickly memorize the abecedar. Demsky identifies the following semantic clusters:

- a) Homestead (*alef* to *waw*)
- b) Field (*zayin* to *ṭet*)
- c) Hand (*yod* to *lamed*)
- d) Water (*mem* to *samekh*)
- e) Parts of the head (*‘ayin* to *tav*)

The variant orders of the Tel Zayit and Izbet Sartah inscriptions do not alter this overall structure of the alphabet.

3) The previous two articles lay out the cultural framework in which the first abecedaries developed. This sociological outlook introduces the reader to Maria Vittoria Toniatti’s “Les syllabaires d’Ebla (2350 av. J.-C.) et les *abjads* du II^e millénaire av. J.-C.” The Italian Assyriologist here investigates the geographical and cultural setting in which the Proto-Canaanite alphabet came about. Referring to core-periphery dynamics in linguistics, Toniatti doubts that such an invention could take place in a marginal region (Sinai) rather than in the core of Semitic culture in this area—a Levantine urban center—in the period between the late third millennium BC and the beginning of second.

During this period, the Upper Levant was dominated by cuneiform script, which had spread from Mesopotamian areas. However, whereas Akkadian scribes transcribed closed syllables (of the form CVC) with specific CVC syllabograms or with the sequence CV-VC (e.g., /buqlum/ as *bù-uq-lu-um*, repeating the vowels of these syllables), scribes in Ebla (Western Syria, ca. 2350 BC), transcribed them in a very original way: The closed syllable is written with a neutral vowel (C₁V₁C₂ transcribed as C₁V₁-C₂V₁), so that for instance /buqlum/ is written *bù-gu-lum*. Functionally, this strategy is indicative of a real tactical change in writing. A sequence of two open syllables (*bù-gu-*) transcribing a closed syllable represents a reframing of such sound sequences in syllabic script, and a change in awareness of the components of a syllable. The analysis behind this written representation of closed syllables could be compared in some ways to the consonantal alphabets (“*abjads*”) of the second millennium BC.

There is more evidence of an awareness of the segments of a syllable in the Levant at the end of the third millennium BC, the very period in which the process leading to the first *abjads* took place. A school tablet from the Ur III period (2112–2004 BC), which was unearthed at Byblos,

partially lists the syllabograms according to the value of their first consonant: *lam-lim*; *li-lá-lú*; etc.

There naturally arises the question as to where this innovation originated. Of the cities in the Levant, Byblos is a likely candidate. The end of the third and beginning of the second millennium was a very important phase in the history of Byblos. Ebla and Byblos are the only Syro-Palestinian centers where late third-millennium objects originally from Egypt have been found. At that time, Byblos enjoyed a phase of development, including the presence of an urban elite and of a cuneiform scribal school. In fact, that city was the main intermediary between Egypt and the Levant for the trade of timber and lapis lazuli. Most of the Pharaohs sent gifts to the “Lady of Byblos” (identified with Hathor) whose temple was in this Canaanite city.

In particular, the period of Amenemhat III, to which the most ancient Proto-Canaanite inscriptions belong, was precisely the period when the Egyptian presence in Byblos was stronger. Thanks to the inscriptions found in Sinai, we know that a man called Khebdeh, the “brother” of the king of Byblos and ruler of Retenu (i.e., of Canaan, Lebanon, and Syria) had an important task in conducting expeditions of Asiatic workers to Sinai in order to extract turquoise.

It thus seems possible, according to Tonietti, that the Proto-Canaanite script could have developed at Byblos, fostered by an awareness of the components of the syllable that can already be traced in some documents of the Levant (Ebla and Byblos) in the late third millennium BC.

4) The two following articles delve into the Sinai inscriptions which represent, together with the Wadi el-Hol inscriptions, the most ancient evidence of an alphabet. Let us begin with the study of Emile Puech.

In his article “Aux sources de l’alphabet: de quelques anciens témoignages en écriture alphabétique,” West Semitic epigraphist and specialist of Qumran texts Emile Puech explores the problem of the alphabet through three important inscriptions that deserve a new reading and interpretation. He examines the inscriptions of Wadi en-Nasb (Gester 1 and 2), taking careful account of the geographical setting where they are located. Thanks to the Egyptian inscriptions located in the same cliff, Puech dates Gester 2 from the second half of the 19th Century (circa 1833–1830). These two inscriptions can be attributed to two different scribes, and their language is Canaanite. The third inscription Puech studies is the Sphinx statuette found at the temple of Hathor at Serabit el-Khadim. Here, a third hand can be identified and the inscription, for which Puech proposes a more complete reading than his predecessors, can be dated,

also thanks to the Egyptian inscription that it contains, to the second half of the 19th century.

Based on these data, among others, the article reflects upon the original names and number of letters in the Proto-Canaanite alphabet. According to Puech, these inscriptions show that the alphabet was already well established in the second half of the 19th century, so that its invention should certainly have preceded the beginning of the Middle Empire. It could have been born in the land of Retenu (as Egyptians called the region containing Canaan, Lebanon and Syria).

The hieroglyphic script would have been an inspiration for the inventors of the alphabet, but Puech notes the originality of the new script, as a few letterforms of the alphabet do not seem to correspond to any Egyptian signs.

Pushing his reflection further, Puech independently reaches a conclusion very similar to Tonietti's. He remarks that a man named Khebbed (the "brother" of the king of Byblos, the Prince of Retenu) had excellent relations with the chancellor of the Pharaoh and is mentioned several times in the inscriptions of that period in Sinai. Khebbed took part with some workers from his land in several expeditions to Sinai in order to extract turquoise. These expeditions with Khebbed would have been a means to export the alphabet to Egypt.

5) In her contribution, Orly Goldwasser addresses two unresolved issues surrounding the invention of the alphabet, which she summarizes under the respective headings "Lost Papyri" and "Egyptian Alphabet." After briefly presenting her arguments for the invention of the alphabet by illiterate miners in Sinai around 1840 BCE, she confronts the voices that believe that the alphabet could only have been invented in circles of educated scribes, whether in lapidary or cursive form (the "lost papyri"). By analyzing the possible ways that the Sinai alphabetic inscriptions could relate to these hypothetical texts, Goldwasser leads the reader to her understanding that the Sinai texts could not have emerged either from another lapidary source or from a hypothetical cursive source of prototypes. This analysis supports her hypothesis that all roots of the early Sinai alphabet may be safely traced back to hieroglyphs from inscriptions in Sinai during the Middle Kingdom.

The second topic that Goldwasser tackles is the "Egyptian Alphabet." The fact that both Egyptian and Canaanite systems are consonantal writing systems has led many scholars to believe that the inventors knew Egyptian and that this very knowledge was a necessary condition for the invention. Goldwasser argues that the Canaanite inventors' ignorance of the Egyptian writing system—including its set of mono-consonantal hieroglyphs today

known by the misnomer “Egyptian alphabet”—was precisely what enabled them to think outside the box and thus produce their fantastic invention. The article deals in detail with the possible relationships between the system of the Egyptian mono-consonants and the newly invented mono-consonantal Canaanite letters, illuminating the differences between the two systems. The article concludes with a detailed proposal outlining the possible influence of certain special spellings of Egyptian personal names in Sinai on the inventors. According to Goldwasser, this theory may explain how the illiterate inventors were able to overcome the linguistic obstacle of separating consonants from vowels, a hurdle that many scholars believe would be insurmountable for any illiterate individual.

6) Acrophony is the key principle of the first alphabet. The question naturally arises as to the degree of originality of the Proto-Canaanite alphabet with respect to acrophony, as this principle was already applied in the Egyptian script. In his article “*Typologie comparée de l’écriture hiéroglyphique égyptienne et de l’écriture protosinaïtique: acrophonie ‘forte’ et acrophonie ‘faible,’*” French Egyptologist Pascal Vernus reflects upon the principle of acrophony, the method by which each sign of the Proto-Canaanite alphabet was associated with the initial phoneme of the lexical item depicted by the sign. Thus the sign  represents a cow: ‘l-’ in Canaanite. By the acrophonic principle, the initial consonant of the depicted word (here, ‘l’) becomes the sign’s phonemic value. In the Proto-Canaanite alphabet, acrophony thus determined the form and value of the phonograms, each a sign representing a single phoneme. Vernus then compares this system with the so-called Egyptian “alphabet.” It is well known that the Egyptian system possessed not only ideograms (signs representing ideas) and classifiers (signs that were probably not read aloud but aided in reading the preceding word), but also phonograms (signs for one or more phonemes). The question arises as to how the Egyptian mono-phonemic phonograms, which had the same function as a letter in an alphabet, came about?

Vernus describes at length this process as it took place in Egyptian, beginning with the principle of the rebus. In some cases a sign, instead of being used to convey the meaning of the word it symbolizes, is applied to its sound (the signifier). The sign is no longer an ideogram but rather a phonogram. In Egyptian, it is the consonants that are wholly abstracted from their signifiers (which comprise both consonants and vowels).

Different circumstances helped this process. Sometimes, the word had the structure CV, as with the sign , which originally designated a “basin” (/š(V)/, with unknown vowel V, in Egyptian) and soon started to be used to mark the consonant /š/. In other cases, this process was

facilitated by the fact that the consonantal structure of certain Egyptian words included weak consonants like *w* and *y* that were not always pronounced.

Vernus thus considers the Egyptian acrophony as a “weak acrophony” (“acrophonie faible”) in that it was conditioned by, and developed because of, the phonetic evolution of Egyptian. The Proto-Canaanite acrophony, by contrast, was the result of systematic choice. Thus, the Proto-Canaanite did not really find the acrophonic principle in Egyptian script, but only a general inspiration for their own writing system.

7) In the preceding articles, the origin of the alphabet has been analyzed from the point of view of sociolinguistics, ancient Middle-Eastern history, epigraphy, and the history of the Egyptian language. The final two studies tackle the topic from two disciplines that seldom deal with the origins of the alphabet: educational psychology and general linguistics.

The article of Italian educational psychologists Clotilde Pontecorvo and Franca Rossi investigates the process of learning the alphabet that a group of Italian children, between four and six years old, underwent while attending the second year of kindergarten in a small Italian town. Based on the innovative study of Emilia Ferreiro and Ana Teberosky (1979), Pontecorvo and Rossi analyze the crucial step that leads a child from the syllabic phase (when a child transcribes a word with characters that are given syllabic values) to the first recognition of sound units smaller than the syllable.

This study examines whether this phonemic discovery among kindergarten children can be facilitated by specific syllable structures (CV, CVV, CCV, or CCCV) within a word. Knowledge of the letters in the alphabet (that is, their names and shapes) does not automatically imply perception of their corresponding phonemes: Without understanding this function of the letters, the activity of spontaneous writing and reading would become a simple recognition of the letters’ names and graphic features.

Pontecorvo and Rossi show that the first instances where the child assigns a single letter a phonemic value can be found, in some cases, in words containing diphthongs or hiatus. Therefore, the CVV syllable (as in “DINOSAURO”) seems to play a facilitating role in including alphabetical elements into writing (as many children wrote the word with five letters in order to transcribe four syllables, dividing the word as DI-NO-SA-U-RO). The VVC sequence at the beginning of a word (as in “AEREO”) seems to have the same facilitating effect.

One possible explanation for this fact is that writing words composed entirely of CV syllables shows few internal differences with respect to other words, and for this reason the writing of CVV syllables can challenge children's syllabic writing and incite a psychological change. In their writing, children do not use letters according to their conventional phonemic values; nevertheless, the letters used do tend to belong to the lexical items' actual phoneme sequences, in another order. For instance, in order to write "scarpa," one child writes "SRAVE," using almost all the letters appropriate to the word, even if they are not placed correctly. This writing is evidence of a strategy first to identify all the sounds in a word and later to concentrate on their position.

Building a new awareness requires the ability to put in the background certain principles (syllabic writing) that cannot be satisfied simultaneously with new ones (phonemic writing). In this sense, the internalization of a writing system plays a role as a space for a novel kind of problem-solving. Diphthongs and hiatus together with geminate consonants are factors that effect the discovery of single-phoneme letters as children progress towards alphabetic writing.

8) Inspired by the works of educational psychologists like Pontecorvo, my own article "Les étapes du développement de l'écriture chez l'enfant et l'histoire de l'alphabet" explores possible parallels between the development that led humanity to the discovery of the first alphabet and the cognitive steps that any child must undergo in order to learn how to read and write an alphabetic script.

The article is built upon an experience that was held from December 2000 to January 2003 with some fifteen kindergarten and first-grade children at the Lycée Français of Jerusalem. The children were regularly asked to write some words and then to read them. When they first enter kindergarten, children have only a purely graphical knowledge of some letters of the alphabet. They can more or less reproduce them but without really conceptualizing their phonemic value.

At first, many children display a pre-syllabic awareness, as evidenced by purely ideographic writings that bear comparison to Egyptian hieroglyphs. Some children display a synthetic ideography, wherein each letter is given the value of the whole word that they have been asked to write. For instance, a child asked to write his own name (Xan) gives each written letter the value of the whole name (in the word "XAN," X = "Xan," A = "Xan," N = "Xan"). Others display an analytical ideography where each letter is given the value of a part of the reality referred to by the word they have been asked to write. When asked to write and then read

the word “animaux,” a child writes “TOM” and then assigns to each letter the name of an animal (T = “girafe,” O = “éléphant,” M = “lion”).

Very often, syllabic awareness appears later: Children begin to give each letter they write the value of a syllable (e.g., “domino” written “DIO”), as in the Akkadian script.

In the final stage, the child reaches phonemic awareness. Some children mark only the vowels of a word, others the consonants (e.g., “maîtresse” written as “MTRS”), as in the first Semitic alphabets. Finally, children eventually write all consonants and vowels of the word, as in the Greek alphabet.

Based on these results, I further characterize the difference between a syllabary and an alphabet from a linguistic point of view: The Proto-Canaanite script can be defined as a true alphabet, rather than a syllabary, as it marks consonants rather than syllables as the basic sound units, thus abstracting consonants from vowels.

The last part of the article concerns the nature of vowels in Semitic languages, where they bear a specifically morphological function. For example, in Hebrew the sequence *a-î* represents an adjective of possibility, combining, for example, with the root *š-bʰ-r* “break” to form the adjective *šabʰîr* “breakable.” Vowels are thus used in Semitic languages as components in *discontinuous phonemic sequences bearing a morphological value*. This is why, from a functional point of view, Semitic consonant alphabets at any historical stage tend to mark only those vowels that are necessary at that time for disambiguating the sound sequence (the so-called *matres lectionis*).

What general conclusions could be reached in this symposium? A broad consensus emerged on the main factors and circumstances that must have surrounded the birth of the alphabet.

First, everybody agreed that the first known alphabetic inscriptions had to be dated from the middle of the 19th century BC (during the reign of Amenemhat III, ca. 1850 – ca. 1805 BC). This window gives us a *terminus ante quem* for the invention of the alphabet.

Second, all available data seem to suggest that some Canaanites (and, more precisely, people from the city of Byblos) who, through their contact with Egyptian culture, were exposed to hieroglyphic inscriptions, were directly involved with the invention.

Third, it was the Egyptian hieroglyphs, rather than the hieratic or demotic script, that served as a model or an inspiration for the inventors. However, the new Proto-Canaanite script bears striking originality in three aspects:

- a) It displays a different conception of acrophony than the one prevalent in Egyptian hieroglyphs;
- b) it is purely alphabetic, whereas Egyptian hieroglyphs mix ideograms, phonograms, and classifiers; and
- c) it does not constitute either a cursive or a standardized script.

Finally, the very structure of the inventors' language could have constituted a trigger for the invention. Pontecorvo shows in her article that some syllabic features of Italian (such as diphthongs) help kindergarten children progress from syllabic to phonemic awareness. In the same way, the consonantal root structure of Semitic languages may have helped the alphabet's inventors to abstract vowels from consonants and thence more easily split the syllable, a prerequisite for phonemic awareness.

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PAROLE ET ECRITURE

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Bien des recherches ont été faites et beaucoup a été écrit sur ces deux activités spécifiquement humaines que sont le parler et l'écrire, capacités que ne possèdent pas les animaux et donc spécifiques à l'homme. Leur singularité, mais aussi leur connexion, font l'objet de travaux continus. Si le parler est naturel à l'homme depuis qu'il est humain (sans spéculer sur ce que pouvaient être les sonorités émises par Adam et Eve), écrire est très récent dans l'histoire de l'humanité, moins de 6000 ans, l'écriture ayant commencé presque en même temps en Mésopotamie et en Egypte.

Le petit nombre de systèmes d'écritures, leur diversité et leur variété de par le monde, et cela depuis le temps qu'on écrit, en regard du très grand nombre de langues parlées entre les hommes doit immédiatement mettre en question les vues simplistes concernant le lien entre la parole et l'écrit, l'une n'étant parfois comprise que comme le décalque de l'autre. Chacune de ces deux activités, parler et écrire, doit trouver son explication spécifique dans le fonctionnement des capacités de l'être humain (parler et faire) avant qu'un lien puisse être établi entre les deux. Ce lien entre les deux n'est ni nécessaire ni obvie car l'humanité a parlé pendant de longs millénaires sans écrire, et aujourd'hui encore bien des gens, à commencer par les enfants, parlent sans savoir écrire. Donc lier ensemble d'entrée de jeu le parler et l'écrire est une erreur de méthode. Le lien est possible mais il n'est pas nécessaire.

L'explication du monde n'est pas dans le monde qu'il suffirait de décrire à l'aide de mots ou de dessiner, encore faut-il d'abord pouvoir préciser l'origine des mots. « L'homme pense le monde au moyen de mots, le rend conceptuellement intelligible »¹, pour pouvoir le dire. Mais c'est une étape supplémentaire et d'un tout autre ordre que d'arriver à figer le mot sur un support pour pouvoir le reproduire par la voix. L'essentiel est de déterminer ce qui dans le parler peut être figé sur du papier, de la pierre, etc....

1. Jongen, 1993, 14.

Dans cette présentation je m'appuie sur les travaux de Jean Gagnepain² et René Jongen. Jean Gagnepain trouve dans la raison humaine quatre plans qui fonctionnent entre eux de manière analogique ; ce sont le plan logique (logos = parler), le plan technique (le faire) et les plans moral et social. Dans le propos qui nous intéresse ici, il s'agit de montrer comment le plan de la parole a pu un jour se lier à celui du faire, c'est-à-dire au plan de la technique ce qui permet d'écrire. Car il n'en fut pas ainsi depuis toujours, depuis qu'il y a des hommes. De fait cette liaison ne s'est réalisée qu'il y a un plus de 5.000 ans. Lier un tracé de signe avec un son est donc une découverte ou invention toute récente dans l'histoire de l'humanité. L'écriture est l'aménagement de certaines activités humaines grâce auxquelles le langage peut être artificiellement (re)produit. C'est-à-dire que par le moyen de l'écriture les mots sont mis en conserve et par la lecture on peut leur donner de nouveau la voix, les lire et les dire.

« L'écriture est signal de signe » pour Jongen³ et Gagnepain et non point le signe lui-même. Les premiers tâtonnements de l'homme pour arriver à l'écriture, le point qui nous intéresse ici, datent d'approximativement 3400 avant J-C, à Uruk, dans le sud de la Mésopotamie. On note dès le début, mais encore aujourd'hui nombre d'inadéquations dans l'écrit ; très simplement, le nombre d'e muets en français, le nombre d'homophones (« cent », « sans », « sang ») en sont les témoins aujourd'hui encore. Mais on reviendra sur ces questions plus loin. Tout simplement pour faire constater que l'écriture ne reproduit pas complètement le parler, elle ne fonctionne pas comme un magnétophone. Elle choisit des sons et en ignore d'autres.

Mais avant d'aborder la question de l'écriture et de l'alphabet, il faut d'abord s'appuyer sur une certaine intelligence du langage (les langues sont des réalisations historiques et localisées du langage). Il n'y a du parler que dans des langues spécifiques. Toutefois le langage fonctionne de la même manière dans toutes les langues, c'est-à-dire l'analyse grammaticale sous-jacente au signe, au sème est semblable.

Le fonctionnement de la parole est d'une telle complexité qu'il est important de le réduire à des éléments simples. Aussi un certain nombre d'épurations et de clarifications s'imposent pour pouvoir montrer où s'unissent et peuvent se joindre les deux plans du parler et du faire.

2. Gagnepain, 1990.

3. Jongen, 1993, 69.

Première épuration : naturel /culturel

Dans l'analyse du langage, on peut considérer beaucoup de composantes dont les principales sont le son, les vibrations, le mot, le sens et la signification. Ces éléments propres au plan de la parole (et il en est bien d'autres) doivent être analysés pour découvrir leurs articulations propres mais aussi les points d'accrochage possibles avec le plan de la technique, à savoir ce qui est écrit, signalisé.

Le monde est bruyant et cela nous le savons depuis fort longtemps, depuis le mythe d'Atrahasis où le trop de bruit causé par les activités humaines empêche les dieux de dormir. Si les causes de bruits de toutes sortes faits dans le monde viennent d'origines multiples (encore plus aujourd'hui à cause des nombreuses machines) il faut introduire une première distinction entre bruit et son, entre nature et culture.

Un exemple l'illustrera fort bien. Alors que tout est calme alentour, il se produit soudain un bruit qui couvre le bruissement ambiant de la vie ; cela provoquera des réactions différentes parmi les vivants selon qu'il s'agisse d'animaux ou d'hommes.

L'animal, le chien ou le chat s'enfuient tout en miaulant ou aboyant. C'est une réaction de panique car ils n'ont pas la possibilité d'interpréter la cause du bruit pour savoir s'il est dangereux ou anodin. L'humain qui entendra ce même bruit cherchera immédiatement à l'interpréter, à découvrir sa nature, à trouver sa localisation et sa cause. Cela provient-il du boom d'un avion supersonique, d'une bombe dans la rue, d'un coup de fusil, d'un coup de tonnerre ou d'un haut-parleur ? L'homme ne subit pas la nature, il l'interprète et cherche à expliquer son monde, son environnement, ce qui lui arrive dans la vie. Il y a d'un côté le naturel, qui, bien sûr, produit des réactions autant chez l'homme que chez l'animal, et de l'autre le culturel, propre à l'homme qui essaie de comprendre et d'expliquer, de trouver l'origine, de discerner un son, donc une parole, un sens.

Une autre expérience. Un discours est mal prononcé. Il reste cependant possible de redécouvrir les mots mal prononcés. L'auditeur essaie de comprendre avec ce qu'il entend et même arrivera à deviner et restituer les sons mal entendus. L'auditeur est déjà dans le culturel et non le naturel, dans le sens et non dans le bruit ; il tente de construire le sens avec ce qu'il entend. Certes, il y a aussi sur le plan naturel de l'interprétation : l'animal, par suite de répétitions de certains gestes, peut interpréter des actions humaines comme la préparation à une marche, à la chasse, au repas. Mais l'homme une fois dans le culturel ne peut plus retourner au naturel, dans le non-interprétatif. Il ne peut pas ne pas chercher à comprendre, à expliquer.

Durant toute sa vie le monde lui sera présent par du bruit, des sons, mais tout passera toujours par une grille interprétative comme celle de la langue. L'homme cherche à comprendre ce qui lui arrive, tandis que l'animal le subit, même s'il peut s'y habituer. Mais jamais il ne l'expliquera. Comment d'ailleurs pourrait-il le faire puisqu'il ne parle pas ?

Tout en ne s'intéressant plus qu'au parler, on peut et il faut aller plus loin pour comprendre et démontrer la nature du **son produit exclusivement par l'homme**, en distinguant la phonétique pour ce qui relève du naturel d'avec la phonologie pour ce qui concerne le langage.

La phonétique (pour le langage) est l'analyse des sons, l'étude de la contribution des différents organes qui les produisent.

La phonologie par contre est l'analyse du son dans une définition formelle, où /d/ s'oppose à /t/ comme *don* à *ton*, /v/ s'oppose à /f/ comme *vont* et *font*. La phonologie analyse le son uniquement par similarité et opposition. A ce point on peut déjà signaler que le signe aura deux faces : une face sémiologique, le signifié, et une face phonologique, le signifiant ; tous ces termes seront expliqués plus loin. Ces deux faces sont liées ensemble et sont nécessaires pour constituer un mot. Donc la phonologie n'est pas simplement le fruit d'une certaine analyse mais un élément nécessaire dans la constitution du signe, du sème.

Seconde épuration : sème/mot

Parler ne consiste pas à faire du bruit, mais à produire des mots. Les mots servent à expliquer le monde, et donc un tri entre sons et bruit s'impose. Mais un autre tri s'impose pour distinguer entre le mot/sème et le sens⁴.

Au début de la chaîne du parler, il y a du bruit interprété, le son. A la fin de la chaîne, il y a de la signification, du sens, ce qui devrait être le but de toute parole ; conceptualiser le monde au moyen de mots. Parler c'est signifier par analyse formelle en mots et c'est sémantiser par réaménagement du mot en adéquation référentielle à la situation de parole. Mot et sens sont l'un et l'autre dans le langage et constituent deux moments simultanés mais contradictoires d'une même dialectique logique.⁵ Il y a médiation du sens par le mot.

On peut le dire autrement : le sens langagier est médiatisé par un moment grammatical (instance) ; le sens (étape ultime) traverse et contredit ce moment formel du mot.

4. Jongen, 1993, 23.

5. Jongen, 1993, 23.