WHAT IS A HIEROGLYPH ?

Stephen Houston, Andréas Stauder

Éditions de l'EHESS | « L'Homme »

2020/1 n° 233 | pages 9 à 44

ISSN 0439-4216
ISBN 9782713228360

Article disponible en ligne à l'adresse :

https://www.cairn.info/revue-l-homme-2020-1-page-9.htm

L'HOMME

L'Homme
Revue française d'anthropologie

233 | 2020
Varia

What Is a Hieroglyph ?

Qu'est-ce qu'un hiéroglyphe ?

Stephen Houston and Andréas Stauder

OpenEdition Journals

Electronic version
URL: http://journals.openedition.org/lhomme/36526
DOI: 10.4000/lhomme.36526
ISSN: 1953-8103

Publisher
Éditions de l'EHESS

Printed version
Date of publication: 27 February 2020
Number of pages: 9-44
ISBN: 9782713228360
ISSN: 0439-4216

Electronic distribution by Cairn

CAIRN.INFO
CHERCHER, REPÉRER, AVANCER.

Electronic reference
Stephen Houston and Andréas Stauder, « What Is a Hieroglyph ? », *L'Homme* [Online], 233 | 2020, Online since 01 January 2023, connection on 17 March 2020. URL : http://journals.openedition.org/lhomme/36526 ; DOI : https://doi.org/10.4000/lhomme.36526

What Is a Hieroglyph?

Stephen Houston & Andréas Stauder

The writing systems of the world vary by origin and development. Most descend from a few creations that, despite their shared origins, change in reaction to their progenitors. Over time, contrast and difference generate a whole series of new scripts, often as part of a process in which writing affirms and marks group identities (Houston & Rojas 2020). Almost all such scripts are line- or stroke-based; if they ever did have a pictorial basis, it is now long gone, or at least far in the background. But a few scripts do exist that, throughout their history, have retained pictorial signs and a commitment to depicting things. These are the hieroglyphic systems. Alongside the preserved pictoriality of hieroglyphic signs – a major and deliberate cultural choice – we find a thorough integration of hieroglyphic writing with aesthetic culture. Like other scripts, hieroglyphic writing represents language, but it is also an encyclopedically dense mode of visual communication, at once inviting and exclusionary, and, at times, even virtuosic in its making and interpretation. Hieroglyphic signs do not just stand for linguistic values: they are inviolable things in their own right, implying a particular ontology and a capacity for performance. Although some of these properties are found in other types of scripts, hieroglyphic writing has them to a concentrated, intense degree.

These reflections build on discussions held at a workshop organized by Andréas Stauder, David Klotz, and Stephen Houston at the Universität Basel. The other Egyptologists were John Baines, Antonio Loprieno, Dmitri Meeks, and Ludwig Morenz; beside Houston, the other Mayanists present were Dmitri Beliaev, Simon Martin, Christian Prager, David Stuart, and Marc Zender. Our gathering, entitled « Egyptian and Maya Writing: Comparing Hieroglyphic Domains », June 9-11, 2017, was sponsored by the National Center of Competence in Research *eikones, Iconic Criticism* (Swiss National Science Foundation and Universität Basel). A further gathering in May 2019, organized by Julie Stauder-Porchet at the Université de Genève with the support of the Swiss National Science Foundation, refined our appreciation of the pictorial compositions that inform our respective traditions. We are grateful to our generous host in Geneva, Julie Stauder-Porchet, as well as John Baines, Dmitri Beliaev, and David Stuart. Reviewers for *L'Homme* provided many helpful comments as well.

Among hieroglyphic scripts, Egyptian takes pride of place because of the quantity of texts available and long tradition of decipherment ; yet Maya writing, as part of a larger inventory of Mesoamerican writing systems, also favored such graphs. Egyptian writing saw the development of cursive variants (mainly hieratic, later also demotic) in which, in relation to different writing contexts and materialities, the signs present stroke-based forms (Verhoeven 2015 : 28-29, for hieratic) and a reduced, but not entirely suppressed, pictoriality ; these kinds of cursive script coexisted with hieroglyphic writing over three millennia. Mesoamerican scripts, by contrast, did not develop digraphic systems, remaining entirely focused on hieroglyphic writing.

Other scripts with a pronounced pictorial character include Anatolian hieroglyphs (a.k.a. « Luwian » hieroglyphs ; *c.* 1500-700 Bc), Naxi dongba (*c.* Ad 1000-present), and Rongorongo (*c.* Ad 1680-1860) on Easter Island (Payne 2015, 2014 [2004], and 2012 ; Hawkins 2000 : 2-3, for the first ; Oppitz & Hsu 1998, for the second ; Davletshin 2017, 2012 and S. Fischer 1997, for the third). In their initial phases of development, Mesopotamian (from *c.* 3400 Bc on) and Sinitic (from *c.* 1250 Bc on) writing also included many pictorial forms, but these evolved into stroke or line-based signs. In Mesopotamia, the schematization of signs began by the late fourth millennium, but the underlying pictorial shapes of several cuneiform signs would have remained recognizable throughout the third millennium. A more definite loss of pictoriality only came about through the standardization and simplification of the script in Old Babylonian times during the early second millennium[1]. A similar « pictorial latency » is plausible for Sinitic writing, while the highly pictorial signs of Anyang/Shang writing (*c.* 1250 Bc-1050) were also undergoing schematization during the first millennium Bc (Qiu Xigui 2000). In fact, even today, proficient users of Sinitic scripts can recognize visual referents in the schematic forms of some signs. As with Egyptian hieratic, schematization need not, therefore, entail a complete or immediate loss of pictoriality. Yet these scripts differ from hieroglyphic writing in one fundamental respect : in the long term, they lack a sustained commitment to their pictorial character.

Their common commitment to a sustained pictoriality invites comparisons between the two major systems, Egyptian and Maya. The other scripts that retain pictoriality over time are fewer in number, shorter lived, and less geographically widespread, providing smaller (Anatolian hieroglyphs ; Naxi) or even meager samples (Rongorongo) ; for the Easter Island script, we have little inkling as to its meaning, and its future decipherment is far

1. See Michael Guichard, paper read at the « Writing Practices in Early Civilization », Beijing, November 2-3, 2019.

from secure. We leave it to specialists in the concerned fields to see if and how these other scripts, undeniably pictorial in character, might qualify as « hieroglyphic » in the strong sense developed in this paper[2].

An additional control enhances comparison. Egyptian and Maya have no common ancestor, despite what fantasies of voyages in papyrus-reed boats would have us believe. As wholly independent systems, therefore, they offer some hope of understanding human approaches to producing graphs. Another comprehensive feature is how they relate visual meaning to records of language. Structurally, Maya and Egyptian hieroglyphic writing systems are logo-phonetic (logo-syllabic in the case of Maya [and of Anatolian hieroglyphs], logo-consonantal in the case of Egyptian). In this, they belong to a broader family of complex writing systems that target both the semantic and phonetic articulation of language : examples include non-hieroglyphic scripts such as Sumerian cuneiform, other varieties of cuneiform, and various Sinitic scripts. The hieroglyphic nature of a script is therefore entirely independent of its structural properties (beyond the basic fact that hieroglyphic writing is in all cases logo-phonetic)[3].

Finally, there is an historical reason for comparing the two. Specialists in both systems have drawn inspiration from the empirical approach elaborated in Egyptology by Henry Fischer (*e.g.*, 1996 : 177-236, 1986, see also 1977a and b). Fischer, a scholar attentive to formal variance and play, was hardly a comparatist. Other than ancient Egypt, his principal interest lay in the Renaissance sackbut, an early kind of trombone (H. Fischer 1984). Yet he confirmed the value of looking at anomalous or idiosyncratic details. Actual sign behavior was his real quarry, as well as the motivations behind such patterns.

2. The Anatolian system is said to be « hieroglyphic because it depicts objects, some of which we can easily identify while others still defy recognition » ; it also shows hints of a cursive, « hand-written variant » (Payne 2012 : 10, 11). John Hawkins divides such signs into those that « stand very obviously for what they present » or those that suggest « a word or idea », albeit, in both cases, scholars sometimes « do not understand » their pictorial motivation (2000 : 4-5, 25). Syllabic signs tend to have a slightly more schematic, less elaborate appearance than word signs (*Ibid.* : tables 2 and 3). Beyond these issues pertaining to the pictoriality of signs, Anatolian hieroglyphic writing can be integrated with pictorial representations, for instance on seals and lapidary inscriptions, and function as a mode of directly visual communication (Payne 2015).

3. One major structural difference between Maya and Egyptian writing is that the latter possesses a large class of semantic « determinatives » or « classifiers » (as these are variously labeled ; *e.g.*, Goldwasser 2002, advocating the latter analysis ; see also, in comparative perspective with Sumerian cuneiform, Selz, Grinevald & Goldwasser 2017), while the former employs only a tiny, debatable number. One of these is likely the cartouche that encapsulates Maya day signs. In the earliest examples, it begins pictorially as a gout of sacrificial blood, with pendant trilobate elements first identifed as such by David Stuart (Houston, Stuart & Taube 2006 : 93, fig. 2.37). By the Classic period, these elements were unlikely to have had a phonic reading.

An element of Fischer's work, or at least a lesson to be learned from it, is an implicit disquiet with « fonts », those conventional forms of signs that, for Egyptologists in particular, help to facilitate publication and enable comparisons between texts[4]. Despite their undeniable convenience, fonts nonetheless manage to misrepresent the essence of hieroglyphic systems. Unlike writing systems based on the discrete combination of lines or strokes (*e.g.*, cuneiform scripts and Chinese after their initial pictorial stages), hieroglyphs are not reducible to substitution classes. They build on shapes ; they have outlines, an inside and an outside, even an implied or real three-dimensionality. They possess visual referents beyond the signary itself, steeping themselves in a broader graphic inventory of imagery. Such participation is central to their meaning and use. New signs, like new images, can always be introduced, and paleographic variance may convey subtle ideas in addition to linguistic values (Meeks 2004, 2007). Although helpful in some ways, fonts do another disservice by muting scribal wit and ingenuity, and by discounting agentive vitality and the artful use of space, even the specificity of signs – the details of *this* text, in *that* place and time, near *those* images. The graphic dialogue between written language and pictures thus loses its primacy.

The vitality of signs that sprout arms and legs has a special emphasis in Fischer's work. Such forms imply an almost mystical, ontological claim, that signs have their own intention and ability to act. The imputation of life to what we regard as inanimate things or phenomena has many detractors, of course. The philosopher Jane Bennett sees animism, in which such beliefs abound, as one of several « discredited philosophies of nature » (Bennett 2010 : xviii). The manifestly non-living cannot have life. But, in a broader scope, whether or not signs had a form of being – a performative existence that Bennett finds impossible – is a futile inquiry. Depending on one's point of view, the answers are already at hand : for us, if we decide to see the signs as responding to the intentions of their human creators, then no ; for the ancient Egyptians and Maya, maybe or probably yes. The conversation across the centuries is with those who believed in the vital energies of pictorial text.

For hieroglyphic systems, picturing mattered deeply, beyond simply the efficient notation of sound. Some students of writing have a different view. Phonic spelling rules in complex systems, and logographic or pictorial scripts are thought to impose on our « poorly equipped » memory (Dehaene 2009 : 189 ; see also Drucker 2014 and Sampson 1985 : 27). Elaborate writing

4. Mayanist experiments with fonts have been notable failures, abandoned almost as soon as devised (*e.g.*, Gates 1931).

might reflect moral deficits, too garnished or ornate for the modernist aesthetics of the last century (Loos 1970 [1908] : 22). Such scripts deviate from the real goal of representing language (Saussure 1966 [1959] : 22), and their embellishments detract from that presumed function. In contrast, alphabets spread easily, do not « accumulate symbols », and, unlike Egyptian and Maya, « discriminate [between] the reality of the signified and the signifier » (H.-J. Martin 1994 [1988] : 26). Implicit or explicit in these statements are distinct ideologies of writing, themselves modelled on Western or Enlightenment claims about the instrumentality of language[5]. According to these ideologies, writing ought to be transparent, realizing its supposed defining function most fully when effacing itself behind language, when freed from any aesthetic, culturally encyclopedic, or otherwise connotative dimension (*e.g.*, Humboldt 1826). In view of such premises, hieroglyphic systems appear, in a sense, abnormal and dysfunctional, their defining traits superfluous. They embody « excess ». Their signs are suffused with extra-linguistic meaning ; aesthetics and formal virtuosity operate front and center ; and visual wit weighs strongly in sign selection, adjustment, and text composition[6]. Otiose in nature, hieroglyphs undertake tasks that more efficient systems do not.

Egyptology as an academic field looks back to a heroic act of decipherment (Champollion 1822, 1824 ; Parkinson 1999 : 12-45 ; Schenkel 2012). Rooted in the Enlightenment, this and subsequent efforts unveiled the linguistic basis of Egyptian hieroglyphic writing. They also led to the marginalization of earlier traditions of speculation on the symbolic or allegorical nature of hieroglyphs. Harking back to the Greek reception of Egyptian hieroglyphs and Neo-Platonism, and extending through Renaissance neo-hieroglyphics to xxth century philosophy, various types of imagined hieroglyphic writing had served and would continue to serve as the constructed « other » in certain strands of Western grammatology (Assmann & Assmann 2013 ; Morra & Bazzanella 2003 ; Iversen 1961). As an emergent field rooted in philology and historicism, Egyptology, by contrast, emphasized Egyptian writing as a « normal » writing system that represented language along its two articulations, the phonetic and the semantic. At a later date, Mayanists did the same in defense of their own language-based decipherment against the backdrop of esoteric speculation (Coe 1992 : 123-144). In retrospect, the Egyptian and Maya hieroglyphic writing systems shared this essential trait : to acquire the dignity of « real » writing systems, their pictured, meaning-laden nature needed to be demoted or set aside. Yet the urgent need to defend

5. For a critique of the latter, see Michael Silverstein (2014).

6. In a similar vein, see Ludwig Morenz (2008 : 1).

phonic decipherments is now diminishing. There is an increasing awareness that hieroglyphic writing is of a particular kind, representing language in systemic ways, while also recording and conveying much more besides. This semiotic and pictorial density is our focus here, as explored through various attributes : the sustained pictorial commitment of hieroglyphic writing ; its integration with aesthetic culture and culturally encyclopedic nature ; its potential for wit, virtuosity, and singularity ; and the interplay of ontology and vitality.

A Comparative Impulse

There is a long tradition of comparisons between Egyptian and Mesoamerican in scholarship, indeed, dating back as far as the first, large-scale European incursions into the New World. In 1519, Peter Mártir d'Anglería described Maya writing as « dice, hooks, loops, strips, and other figures, written in a line as we do ; they greatly resemble Egyptian forms » (Anglería 1989 : 279-280). Centuries later, Léon de Rosny, a distinguished French scholar, noted that both systems shared an « engraved », « sacred » and « figurative » character (Houston, Chinchilla Mazariegos & Stuart 2001 : 78, 82 ; Fabre-Muller, Leboulleux & Rothstein 2014 : 43). Unusually perceptive in his views of Maya writing, de Rosny grouped both scripts into the same category, « figurative » yet also capable of recording sound (1870 [1860] : 70). He was not alone. A generation earlier, Constantine Rafinesque, a polymath writing on the American frontier (Call 1895 : 96-113), had sent a formal report on Maya writing to Jean-François Champollion (Rafinesque 1832 : 4-5 ; see also Stuart 1989). The gesture was fruitless, unfortunately, for his intended correspondent had died that very year. Nor would Champollion have relished the paper. Knowing only of the Aztecs, and little at that, he had previously maligned « Mexican » script as an « imperfect system » with « shapeless paintings » of a « coarse and incomplete » nature (1824 : 263, 312 ; cf. Lacadena 2008 ; Zender 2008). Chinese, he felt, lay closer to Egyptian hieroglyphs (Champollion 1824 : 55, 282, 305, 324). In this, Champollion relied on an almost mystical conviction, common in Europe at the time, that Chinese writing contained « a foundational logic… lost by the Chinese themselves », beyond the « prolixity of ornamental language » (Porter 2001 : 24, 50).

The steady, long-term commitment to global comparison is evident, but there are also several ironies. Champollion, for example, had famously refuted earlier views of Egyptian hieroglyphs, principally those of the Jesuit Athanasius Kircher. Kircher, a polymath – Rafinesque mirrored his amateurish overreach – viewed hieroglyphs as portal signs. Accessible only to

the initiated, they took readers to a truer apprehension of reality (Hamann 2008 : 4-5). Concrete forms both concealed and unlocked deeper ideas ; for those trained in its mysteries, primordial wisdom might be « immediately sensed, in a flash » (Dempsey 1988 : 345), « without reference to the forms or structure of any spoken language » (Hamman 2008 : 7). Not inclined to modesty, Kircher likened his work to the « discovery of America », an uncovering of « the fundamental unity of human culture and its origins » (Glassie 2012 : 135, 144).

Yet, in rebutting him, Champollion, imputed *precisely* the same views of « another order of ideas » to the « tableaux of the Mexicans » (1824 : 280). His claim had deep roots. Books of the early modern period had combined images of Aztec deities, such as those taken from a volume in the Vatican (Hamman 2008 : fig. 8), to floating roundels of Egyptian deities, declaring an equivalence, say, between a Mexican god and the Roman Jupiter (Cartari 1615 : II, v[7]). In a further irony, evidence exists that Kircher's works circulated in New Spain, with implications for the study of writing in Mesoamerica. One source in colonial Guatemala purloined and tweaked Egyptian-like images from Kircher to fabricate a supposed writing system for the Pipil people of Central America (Houston 2016). As Michael Coe has argued, there can be little doubt that something like Kircher's claptrap infected Maya writing studies well into the 1950s and beyond (Coe 1992 : 123-144, 156-166 ; Hamman 2008 : 5-6). Yet the resulting distortion can be overstated. The most eloquent proponent of mysticism, Eric Thompson, had suggested specific glyphic readings in Mayan languages (*e.g.*, 1971 [1950] : 56). What Thompson failed to do was to probe grammar and the means of recording sound, or to conceive that, for the Maya, pictures could form a coherent system of writing with linguistically sequenced elements.

Such early comparisons between Egyptian and Maya writing can be likened to a larger enterprise of « commensuration », a forced, « translingual » alignment between two sets of meanings that affected all encounters between Spaniards and native peoples after the conquest (Hanks 2010 : 157). The process had a political component. In practical terms, it allowed the Old World to dominate the New, expressing new inequalities by subordinating one system of meaning to the other. Higher status and moral weight went to words in European languages, the better to channels ideas that might convert and catechize Native Americans. Thus, Aztecs would have a Jupiter, but there was no corresponding need to find a European counterpart to Tōnacācihuātl, the deity highlighted in the volume at the Vatican. Even a bilateral flow of translation and correspondences carried its own social

7. Unfortunately, Cartari's volume lacked any direct explanation of its images.

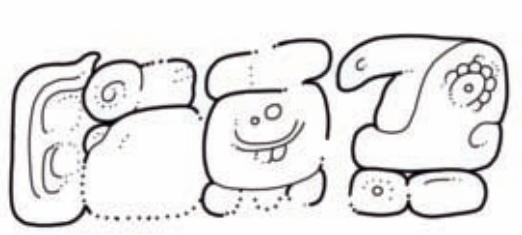
asymmetry, with a further subtlety as well. As a concept, commensuration overlooked a quieter if more sweeping postulate, that underneath these civilizations lay a set of original, unitary, meanings. To return to the example of Jupiter, a planet might correspond to an Egyptian or Aztec god because of a widespread European belief in *prisca theologia*, an « earliest theology » held to be « the common inheritance of all peoples » (Godwin 2009 : 59). In some respects, recent scholarship is no different, albeit with greater justification. Cultural comparison presumes that humans develop kindred notions, that they reason in similar ways, and possess like brains and bodies. But, alongside those features is a wider, indisputable trait : that humans innovate and vary. The crux is to investigate what people share and what they do not.

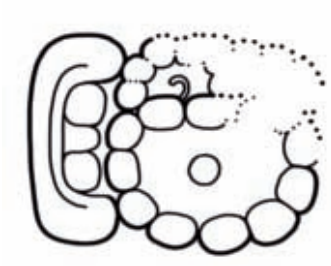
Figurative Writing

What scholars could agree on is that Egyptian and Maya writing focused on depictions of things. They were, in a word, « figurative ». Unlike other scripts with figurative origins, like proto-cuneiform or Chinese, hieroglyphic systems remained pictorial and notionally three-dimensional in their use of pictures. For some observers, this seemed to be a problem. Writing in the XVIIIth century, Nicolas Fréret lauded the abstraction of Chinese script, which appeared to be more rigorously removed from concrete representations of things (« *plus philosophiques… plus intellectuelles* »), a position that he shared with Gottfried Leibniz (David 1965 : 63, 65 ; Porter 2001 : 49-57). In Egyptian and Maya scripts, what looms large is a focus on things-in-the-world, their palpable physicality (even in brushed versions), and an obvious delight in material incarnation. The Maya glyph for « macaw », read **MO'**, features the scalloped outline of the bill, a prominent, rounded tongue, a featherless bumpy section around the eye **[Ill. 1]**. The syllabic **mo** probably derives from the beaded circumference of the eye, but with a graphic economy that lacks the lush detail of the bird head. In the paired Egyptian examples, the duck is seen in dynamic flight ; the pictorially detailed feathers, like the viper's scales and the hand's nails, insinuate presence – even though all three signs are purely phonetic *(pꜣ-ḏ-d)*, in the phrase *pꜣ ḏd*, « the saying ». In the same tomb, the duckling (writing *tꜣ* as part of *tꜣtỉ*, « vizir ») can almost be heard crying to his mother, as if erupting from the field of writing.

In writing, any graph develops from conventionalization. Complete idiosyncrasy would diminish the capacity of others to recognize or distinguish signs. It would furthermore make it impossible for a visual form to stand for something else – a value – and for the script to be transmitted from one

1a





1b

1c

1d

a and b. In Mayan glyphs, "Macaw" *(Ara macao)* as logograph **u-CHAN-a'n? ta-ja-la-MO'-'o**, El Reinado Block A, position pB2-pC2, *c.* AD 692 and syllabic **u-to-mo**, Caracol Altar 13, position wC1, AD 830 (renderings by Stephen Houston)

c and d. In Egyptian glyphs, a duck flying, phonetically for ***p3*** in the phrase ***p3 ḏd*** ("the saying"), and a duckling crying to his mother (phonetically ***ṯ3*** as part of ***ṯ3ti***, "vizir"). Tomb of Rekhmire, Thebes (TT 100), *c.* 1450 BC (courtesy Dimitri Laboury, Mission archéologique de la nécropole thébaine [MANT])

generation to the next. Figurativity itself is best understood as a continuum, from a closely observed depiction to a high level of abstraction (see Vernus 2020). Signs are calibrated in size. For instance, as graphs, an elephant and a fly would have the same size regardless of their actual dimensions. Their shapes too would accord with the depictive and formal conventions of a broader visual culture. The very selection of visual referents for graphs – and therefore the composition and historical changes of signaries – reflect shifting cultural hierarchies and idiosyncrasies.

Hieroglyphic systems favor iconicity, an overt likeness, and a discernible reason for graphs over the arbitrary referents of most writing systems. The letters composing the text of this essay do not have any such motivation, other than, perhaps, their distant origin in some Egyptian signs (Morenz 2019, 2012 ; Darnell *et al.* 2005 : 90). Entirely arbitrary, they enjoy no such existential link to the world. In hieroglyphic writing, signs can be motivated on various non-exclusive levels : depictive, metaphorical, phonetic, etc. (*e.g.*, Vernus 2003, 2020). This motivation lies ultimately in the eye of the beholder, so that various users of the scripts would have looked at signs differently depending on their interest (or lack thereof), expertise, or wit. Signs can lose their motivation or be re-motivated secondarily, including on multiple levels at once – possibilities that are demonstrated by the evolution of signs, as well as by extended ludic, virtuosic, or enigmatic practices of hieroglyphic writing (see below). Signs resonate with one another, and it is this « system-internal iconicity », an echo and a contrast between graphs, that often mediates between the sign and its visual referent in the world (Stauder 2018b).

Figurativity and iconicity are culturally embedded to a much greater extent than fantasies of a universal « ideo-graphy » (a highly ambiguous term in itself, used here in its primary etymological sense). Consider Isotype, the so-called *Wiener Methode der Bildstatistik* that was devised between the two World Wars to enhance cross-cultural transparency (Neurath 1936). In fact, Isotype's picture-based instruction on « How to make use of the telephone » still contains numbers, which require knowledge of such notations, alongside laughably dated images of telephones ; worse yet, in graphs tinged with bias and caricature, maids wear aprons, « yellow men » wear conical coolie hats, and East Indians sport turbans, although the street signs in Isotype do resemble those in use today (*Ibid.* : 19, 36, 38)[8]. In much the same way, Egyptian and Maya writing are culturally embedded and function within implicit frameworks. They are culturally encyclopedic in the sense that they project semantic and semiotic depth, hinting at far-reaching knowledge behind their production and use. Hieroglyphic scripts, in turn, help to sustain and reinforce a particular cultural encyclopedia. To this encyclopedia they remain intimately tied – a factor that accounts for their millennia-long existence and evolution (as long as the culture itself endured), as well as their ultimate demise (when the sustaining culture expired). Egyptian hieroglyphic writing thus remained linked to Egyptian culture itself, in spite of the high-cultural prestige of the script abroad.

8. A notable feature is that, at only 15 cm by 2,5 cm, Neurath's *vade mecum* was clearly intended for portable consultation.

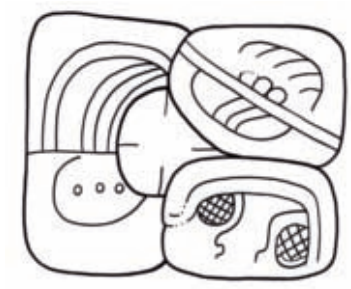
By contrast, cuneiform writing spread in its various forms over much of the linguistically and culturally highly diverse ancient Middle East. Foreign adaptations from Egyptian scripts, on the other hand, were cursive and differed structurally, shedding all aspects that make a hieroglyph. These adaptations included : abjads (consonant-based scripts) in the Eastern and Western Deserts in the early-mid second millennium Bc, from which all present-day alphabetic scripts derive ; and an abugida (based on consonant signs with secondary vowel modification) like the Meroitic script in the Middle Nile valley (IIIrd century Bc-Vth century Ad) (Morenz 2019, 2012 and Darnell *et al*. 2005, for the former ; Rilly 2008 : 185-188, for the latter). Meroitic « hieroglyphs » were a local creation that was secondary to the locally pre-existing cursive, which they resembled structurally. The contrast between the two Meroitic scripts, the cursive and the more figurative one, emulates aspects of local Egyptian digraphia (see below). But Meroitic « hieroglyphs » are hieroglyphic only on a superficial formal level : that is, they contrast a figurative and a non-figurative script, with the former concentrated in temples, a highly sacralized register of royalty. They are *not* hieroglyphic in structure (the script is an abugida), in orientation (the signs do not face the reader : see below), and the signary refers only slightly to a cultural encyclopedia. Any existential link to the world, as brought about by the figurative signs of genuine hieroglyphic writing, is also missing.

Inviolable Things

A basic premise in figurative systems is that signs typically behave as inviolable things. Hieroglyphic signs cannot be broken down into discrete combinations of constituent lines or strokes. They are continuous forms when they point to a visual referent and equally when they do not. Hieroglyphic writing avoids diacritic differentiation of signs, skirting what is almost, to put it vividly, an act of « diacritic wounding ». Sumerian cuneiform differs by making abundant use of diacritic marking and sign compounding – modes of sign derivation that lexicographers would later systematize in the second and first millennia Bc (Glassner 2000 : 161-215). In hieroglyphic writing systems, the inviolable integrity of signs also affects which combinations are allowed or preferred, and which are to be avoided. Egyptian hieroglyphic signs can be combined into composites, yet under certain restrictive conditions only. Egyptian composites have a particular, often symmetrical, visual balance ; or they result in visually meaningful combinations, when, for instance, a flat sign supports and grounds a taller narrow one in the manner of a plant, or when a sign is held by another representing a human

being acting on it (H. Fischer 1977b)[9]. Beyond formal aspects, one specific type of sign combination is illustrated by a composite logogram standing for *fƷi* (« carry ») **[Ill. 2a]**. The seated man carries a snake, in fact its own phonetic complement, *f*. The combination is at first visually incongruous – why carry *a snake*, and how to carry it while remaining seated ? – and even disrespectful of sign integrity. Yet, on a deeper level, the visual rupture points to an act of « carrying » : visual incongruity does not detract from but enhances coherence. In a Maya example, the sign **K'IN** (« sun ») emerges from between the signs **KAN/CHAN** (« sky ») and **KAB** (« earth »). The combination spells out **PAS** (« dawn ») **[Ill. 2b]** : the constituent signs are not to be read out, but remain in place for semantic reasons. At the same time, the combination is also visually appealing and meaningful – note that the inversion of the sky sign, ordinarily in a different orientation, may signal its distinct, componential function here. In Sumerian cuneiform and in Chinese writing, the semantic compounding of signs (*diri* and *huìyì*, respectively) needs not, in general, abide by such strong principles of visual cohesion.

2a. Logogram *fƷi* ("carry")
Tomb of Mereruka, Saqqara, *c.* 2300 BC (after Duell 1938 : pl. 32)



2b. Combination of signs signifying **'i-PAS** ("now ? [is] the dawn")
Piedras Negras Throne 1, position G'1, AD 785 (rendering by Stephen Houston)

As inviolable things, hieroglyphic signs also have defining edges, an integral interior, and, when carved, a volumetric three-dimensionality on a flat ground **[Ill. 3]**. In actual incarnation, signs can be produced in varying resolutions of internal details, much in excess of anything required to make them distinctive. This and the aesthetic investment that goes into individual graphs point to a modality by which these stand by themselves, rather than solely in distinction to other graphs. Volume and colors that do not

9. A detailed formal typology of Egyptian composites was presented by Dimitri Meeks at the Basel gathering, and will constitute one chapter of a study of Egyptian grammatology currently in preparation by the same author.

necessarily correspond to the natural referents of signs enhance visibility or presence, as do graphs of considerable size and prominent placement. Raised relief (in Maya and Egyptian practice) and sunken hieroglyphs (in Egyptian practice) harnessed light with dynamic effects that were contingent on unstable torchlight or slowly shifting solar conditions of lighting. It has been noted, for instance, that the carvers of Nectanebo I's Naucratis and Thonis-Herakleion stelae (380 BC) played with the ways in which light might fall on the rhythmically spaced, sunken hieroglyphs lightly carved into graywacke (Bomhard 2012 : 2). As some Ptolemaic inscriptions explain, light falling on temple reliefs summoned an indwelling of the divine through the iconic forms of hieroglyphs in temples (Pries 2016 : 451).

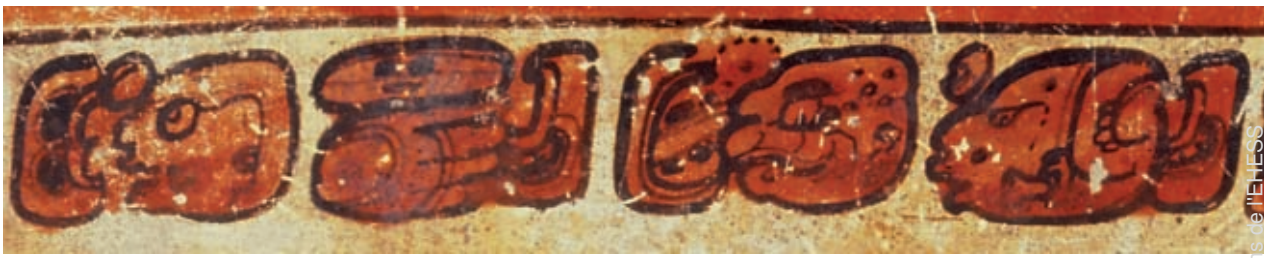
Things require housing, placement, and containment. For Egyptian, this process involves spatial arrangements of signs in ideal frames or « quadrats » in accordance with certain rules of visual balance. For Maya writing, configurations involve quadrangles or squares (« glyph-blocks »), with further compression of individual glyphs into such containments ; often, the earlier the text, the more likely that a single containment would hold a single glyph, an arrangement that collapsed as longer texts needed to be fitted into tighter spaces. Thus, both systems of writing arrange signs in bi-dimensional frames, making concessions to, but also resisting, the one-dimensional linearity arising from language. Such grouping in frames is central to the aesthetics of hieroglyphic writing.

3a

3b

3. Three-dimensional volume and the play of light
a. Thonis-Herakleion stela of Nectanebo I (© Franck Goddio/Hilti Foundation)
b. Yaxchilan Stela 12, position C2-D2, AD 752 (photograph Teobert Maler)

They bring about a sense of rhythm and cadence. Yet there is a clear distinction too. In Egyptian, the individual signs within the frames remain autonomous, creating a general sense of orderliness. Maya glyphs are more dynamic. They agglomerate, and a notional « overlapping » occurs in which signs seemingly pass under another : complex details are hidden but inferable from features that peek out. The scribes or carvers would vary these compactions by wit and virtuosity. In some instances, they would also undo them, electing to display those otherwise hidden details with complete outlines.



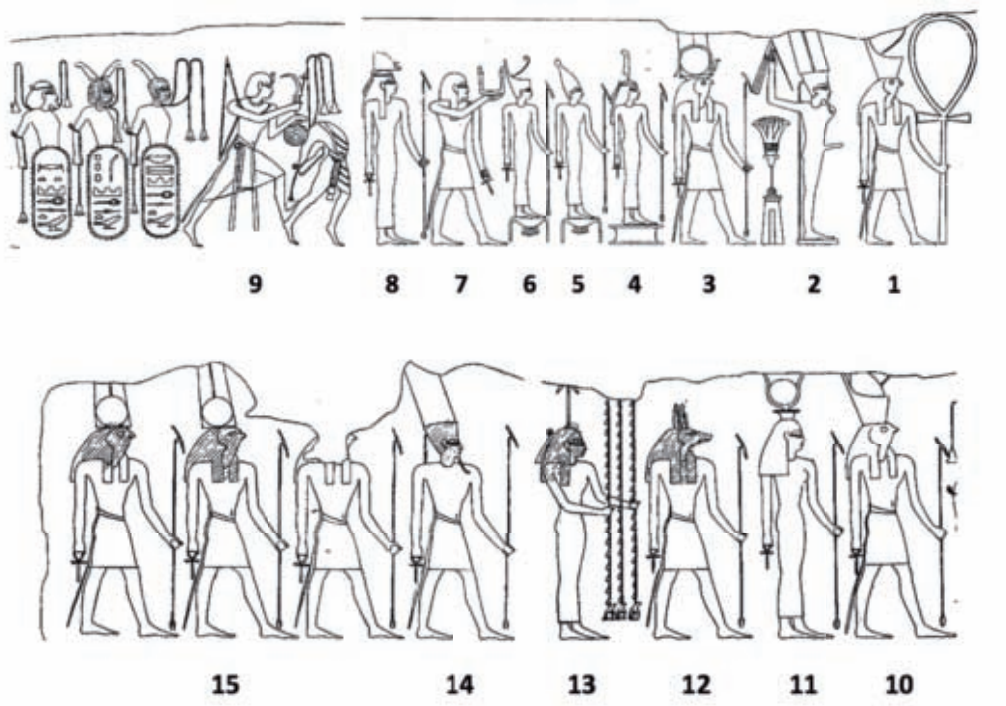
4a. Signs that face the reader
Text under rim of Classic Maya vase, *c.* AD 700 (K504, courtesy Justin Kerr)

Thingness has a conceptual consequence. If a sign appears as a discrete being or object, it may also move in space, and, if endowed with an autonomous resolve, enter a state of animation. One depicted movement, arrested in time, implies others coming before and after. Both systems appear to embrace this potential, especially with respect to the orientation of corporeal signs or those equipped with body parts. In social discourse, one person faces another. In Egyptian and Maya writing, the conventional pattern is for a sign with body parts – face, leg, beak, talons – to « face » the reader **[Ill. 4a]**. If the reader is scanning a text left to right, the signs look to the left, as though awaiting the reader in sequenced fashion. In captioning, the texts that specify a scene or identify its participants, the direction of the person or animal follows this convention, but flexibly so : if someone faces to the right, so do the signs ; if to the left, the writing follows suit. In Egyptian texts spoken by a figure, the orientation of the signs aligns with that speaker. When inscribed in columns, the text begins next to the speaking figure and unfolds while moving away from it, as if speech were emanating from that person. Here, exceptionally, the reader does not face the signs, but flows with them as speech does : away from the speaking person (*e.g.*, in a lengthy instruction spoken by the king to his newly appointed vizier, *c.* 1450 BC **[Ill. 4b]**). In architectural space, readers may participate kinetically, in that, as in some Maya glyphs on doorway jambs or lintels, signs face the direction of a person entering the chamber (Houston 1998 : 347, fig. 10, 11). Much the same operates in Egyptian architecture (H. Fischer

1977a). Each encounter with a glyph becomes, in a sense, a zone of social contact, passing on to the sign behind. Certain apparent exceptions help to prove the rule. Meroitic « hieroglyphs » are oriented with the reader, not facing them. As noted above, Meroitic « hieroglyphs » are in fact secondary to a local cursive script and themselves only a pseudo-hieroglyphic script.

4b. Speech flowing away from the speaking figure
The king, in the golden frame on the outer right of the picture. Tomb of Rekhmire, Thebes (TT 100), *c.* 1450 BC (courtesy Dimitri Laboury, Mission archéologique de la nécropole thébaine [MANT])

Thingness can also be *pars pro toto*. A single feature may connote the whole, as in the macaw's eye for the bird. This raises the prospect of what might be termed a « merograph », from the Greek term *meros*, for « part » appended to « graph », a visible sign. The body part of consumption or vocalization appears to be basic, while fuller examples include bodies **[Ill. 5]**. The presence of a body in arrested motion embarks on a more flamboyant possibility that challenges and sometimes crosses the line between picture and text. On an architrave in Luxor Temple, what appears as an iconographic register of deities walking into the sanctuary is in fact a fully legible titulary and dedication of Ramses II (*c.* 1275 BC;



5. Ramses II's enigmatic inscription (royal titulary and dedication)
On the eastern architrave of the forecourt of Luxor temple, *c.* 1275 BC
(after Klotz 2020; Drioton 1940: 319-328)

Klotz 2020). Through this mode of full-figure enigmatic writing, the expanded royal name is inscribed, sign after sign, consonant after consonant, in the realm of the divine, becoming a solar icon visible to all. In roughly the same period, three-dimensional pendants occur in royal statues. Their elements are legible as royal names, but also occur, if more rarely, in non-royal statues (Morenz 2008: 184-192; Klotz & Brown 2016, respectively). In temples of the Ptolemaic period (IInd century BC-Ist century AD), so-called « bandeau inscriptions » of generally predictable contents can consist almost entirely of animate beings, often animals and deities. Through formal attributes, writing both praises the temple's deity and multiplies the occasions for divine indwelling in hieroglyphs (Cauville 1990, 2002; Pries 2016). The solid phonetic grounding helps to anchor this full-figure flamboyance.

6. Full-figure glyphs
9+10 **BAAH-K'AWIIL**, Copan Temple 26, position b1-b2, AD 756
(drawing David Stuart)

For the Maya, who also deployed full-figure signs, the stunning complexity of such presentations correlates with more routine content, as though dense or novel information could not coexist with high levels of embellishment **[Ill. 6]** (Houston 2020). This relative weighting of picture *versus* text must have been deliberate, and to some degree an accommodation of the interpretive challenges faced by readers. The more incisive question concerns the overall meaning of such animation. In both systems it appears likely that, just as carvings could be inspirited with vitality, so could writing. Among the Maya, *baah* was both a term for « face », even « body », but also « image » or « portrait », truly a signifier that blurs with the signified (Houston, Stuart & Taube 2006 : 60, 72-81). Another relevant feature is that Maya full-figure signs display hints of vocalization. Mouths gape, heads fling back, perhaps in allusion to the orality that hovered in and around Maya literacy (Houston 1994). To some extent, Maya glyphs or texts can even be categorized in phonic terms, according to how « noisy » they appear to be. In contrast to the dynamic figurations of Maya signs, Egyptian signs would be decorous, composed, even stiff, and « silent ». Nonetheless, a passage in the so-called « Book of Thoth », of late attestation, suggests that animate signs on the walls of late temples could themselves speak, bark, tweet, or otherwise emit noise (Pries 2016 : 457-458).

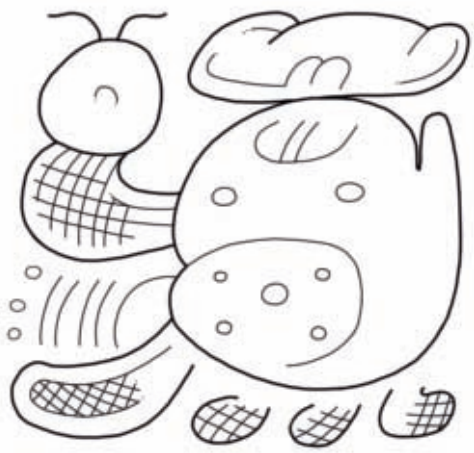
Excess

These instances illustrate another major feature of hieroglyphic writing, namely its substantive and visual excess. The figurative signs of hieroglyphic writing contradict the premise that a graphic sign would be all the more functional when freed from any aesthetic, culturally encyclopedic, or otherwise connotative dimensions (see above). Against such instrumentalist ideologies that emphasize the transparency of writing, hieroglyphs carry connotative levels of meaning, are existentially linked to things in the world, and have a visual density and physical presence beyond the mere representation of language (a function to which they retain a resolute commitment). In practice, play and virtuosity, puzzles and flourishes are all integral to hieroglyphic writing.

Naturally, supplemental meanings can also be expressed in other types of writing systems. In Akkadian cuneiform, the relation of the script to another language, Sumerian, is exploited for scholarly or ludic reasons to express additional levels of meaning as a major hermeneutic technique in scholarly contexts (Glassner 2019 : 210-215 ; Finkel 2010 ; Maul 1999). Graphic flourishes, embellishments, and virtuosity can be found in all scripts, regardless of type. Human writing practices, generally speaking, extend beyond the mere instrumental representation of language to the

foregrounding of the inherently visual dimension and presence of writing in itself, at times even to the point of illegibility[10]. What is specific to hieroglyphic writing, we propose, is how these additional expressive dimensions are tied to the pictorial dimension of hieroglyphic writing, and how hieroglyphic writing is inherently inclined to excess, in the sense of the word employed here.

Components may thus be brought together in spellings of astounding compaction, as in a Maya example from Bonampak Sculptured Stone 5, position I1 **[Ill. 7]**. Three syllables, **'a**, **na**, **bi**, are incorporated into three other signs, **ch'a**, **JOOM**, and **ma**, for a total of two words (*'anaab*, *ch'ajoom*) within a single glyph block. Virtuosity itself can be understood as a response to arguments that script simply records language. To make a sign identifiable, and suitably distinguished from others, it must contain a set of necessary and sufficient attributes, as in the bare traits of a Maya day sign **AJAW**. Too few of these attributes, and the sign loses its legibility. But that which appears to go beyond the necessary and sufficient, to a higher level of superfluity, embellishment, and ornament, enters into the domain of the virtuoso. Where to apply such superfluities may shift within a text, and a calligrapher or carver could employ ornament consistently or elect to lavish such attention on only a few signs. A rendering of such elements as a single, reduced font ignores all of this variable play, as does any transcription of a text.



7. Spelling compaction, **ch'a-JOOM-ma 'a-na-bi** Sculpted Stone 5, position I1. Bonampak, Mexico, c. AD 642 (rendering by Stephen Houston)

Egyptian practices of « enigmatic writing », or « visual poetry » as it is alternatively labeled, is just as excessive in visual composition as virtuosic play, and as an expression of supplemental meaning beyond the sequential articulations of language (Stauder & Klotz 2020 ; Morenz 2008). In an inscription of a non-royal individual, Antef, son of Myt, a unique graphic creation entices the beholder :  (Morenz 1998 : 246-248). On further inspection, a skilled and imaginative reader sees that the spelling is based on a description of what meets the eye. Thus, in Egyptian : « horns *(wp)* and fish *(bs) above (ḥr)* heads *(tp)* », from which issues, by rebus, *ḥrỉ-tp wp bs (…)* (« a superior who opens the initiation […] »). The speaker refers to restricted knowledge in a spelling that resists easy decoding : here, the enigmatic spelling is boldly affirmative. Two thousand years later, in an altogether different sacerdotal context, a phrase in a short hymn to Isis

10. Consider Arabic calligraphy or the « bird-script » of the early Han dynasty (Louis 2003).

at Philae is rendered graphically in five different ways, juxtaposed in five columns. As analysis shows, the difficulty is graded, and a mounting skill of interpretation becomes necessary for each successive set of spellings, before the last column shifts back to greater simplicity. Here, and in other instances where graded difficulty is associated with cues to the reader, a priest is playing with his peers (Klotz 2015). In similar sacerdotal contexts, difficulty can be such that the text, or much of its phrasing, must be known in advance. Rather than « decoding », readers must engage with the virtuosic cleverness of other priests and think through multiple levels of meaning that lie beyond the words and names recorded in hieroglyphs.

In embellishments and visual poetry, whether in Maya or in Egyptian writing, this excess is pushed even further. Beyond the challenges of decoding, virtuosity and enigmatic writing foreground the iconicity inherent in hieroglyphic writing. Supplemental meaning is expressed, and reading is slowed down. Through such delays, writing absorbs the reader and beholder alike (Stauder 2020). It invites a different, more experiential engagement with the inscription : one that exists beyond the words that are written, in and through the writing signs themselves.

Texts, Images, and Aesthetic Culture

Artful display informs the positioning of texts in space and in relation to images. A spectrum can be imagined in which an image stands alone, or has a small text in proximity ; at the other end are images with longer texts and stand-alone texts. Armando Petrucci called the sum total of visible texts a « graphosphere » (1993 : 46) ; if this is a useful word, then the spectrum might extend to the texts positioned near images. Nor would it apply only to a single object. It enhances a deliberate, cumulative experience as viewers move through the inscribed landscape of an Egyptian necropolis, or into a temple, along various causeways or passageways, or up, past stelae, to the summit of a Maya pyramid with carved lintels. Who or what secures the right to captioning or textual enhancement, or which text might occur singly, remains an understudied feature of global epigraphy (Houston 2018a : 140-152), a field that, as a study of material writing and the ways to study it, is itself insufficiently integrated beyond the valuable application of programs like EpiDoc (Bodard & Stoyanova 2016). A lingering question remains whether a focus on text alone does justice to pictorial systems that contain signs of an essential idiosyncrasy, with considerable leeway in how the details are handled. With or without images, a hieroglyphic text is also a visual composition in itself, with complex features of layout – internal echoes, resonances, and hierarchies –that exist in the bi-dimensional, or even

tri-dimensional field of inscription (illustrations : Stauder-Porchet 2020a and b). If, on one level, the entire effect is graphic or visual, no amount of ekphrasis, encoded or not, will capture the relation of the hieroglyphic text, a visual artifact extended in space, to the underlying sequence of recorded language. The questions, then, are : how does one see/read a hieroglyphic inscription ; and what kinds of interactions do hieroglyphic inscriptions call for in diverse contexts and places ?

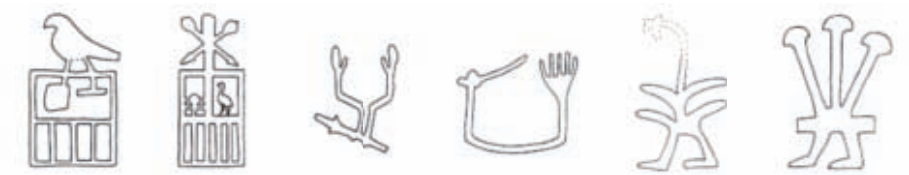
A defining characteristic of hieroglyphic traditions is the close integration of writing with visual and aesthetic culture. Yet the marriage of the two is not a complete fusion : pictorial signs are codified reworkings of images that are themselves codified by tradition and training. As noted above, a thoroughgoing, undisciplined variety of signs would suppress legibility. Often, their size was recalibrated and regularized, a necessity so that signs might equate roughly when laid out in a text. Moreover, the field of writing was distinguished from pictorial representation by the expedient of columns or lines, background, or placement on the monument. With this difference stressed, individual writing signs were inserted into pictorial fields : although not a Maya example, later Aztec writing designates a syllabic **te**, or loograph *tetl*, « stone », with the same attributes (knobs, undulating bands of color) that distinguish it in imagery **[Ill. 8]** (Aubin 1885 [1849] : 30 ; Lacadena 2008 : 9, 11, 12, 21, fig. 6 ; Zender 2008 : 29, fig. 7). Being well established, the boundaries between the pictorial field and writing could be transgressed on any of the levels at which they were defined (Vernus 2020). Through de-calibration, a readjustment of size and scale, writing signs could enter the pictorial field. In their heightened iconicity, serial quality, and specific placement on the monument, full-figure inscriptions, discussed above, represent yet another oscillation between the pictorial and the written. As the extant documentation attests, such oscillations were often explored, at times with an obvious bent towards levity. Rules of the play were given by the principled contrasts between writing signs and pictorial representations, and between the fields of writing and of pictorial representation, recalled above. In the code of a given aesthetic culture, such differences could then be suspended in part or in full, making it possible to tease out the divide between the pictorial and the written.

8. Aztec te sign in **a-te-TEMO**
The month Ātemō[stli], with a gloss *atemoztli./Veyn/ te dias*, Bobán Calendar (#30891, rendering by Stephen Houston)

Another view, spearheaded by John Baines – like Fischer, a joint inspiration to Egyptologists and Mayanists –, considers two different modes of sign behavior (Baines 2007 : 285-288 ; H. Fischer 1972). In both traditions, one such mode is « emblematic » or stand-alone, and is often of an onomastic (naming) nature ; the other occurs as syntactically organized chains that may not require any accompanying images. For both systems, emblematic signs appear early in their development, a probable reflection of the visual crucible of codified imagery and aesthetic culture from which writing emerged. Achieving a singular kind of physicality, emblematic signs enter into the existential world of images. In Egypt, as Fischer emphasized, they sprout arms, legs or figure as discrete objects or containers **[III. 9]** (H. Fischer 1972 ; Baines 1985 ; Vernus 2020). For the Maya, and throughout Mesoamerica,

9. Emblematic mode

9a



9b

a. A collection of acting and walking Early Dynastic composites ; the first two are royal names, the next two are non-royal personal names, the last two designate ceremonial deliveries of products ; *c.* 3050-2900 BC (H. Fischer 1977b : fig. 1)

9c

b. Seated figure of **YAXUUN?-BAHLAM,** ruler of Yaxchilan. Mexico, Miscellaneous Stone 1, with name glyphs in headdress, *c.* AD 760 (photograph Sylvanus Morley)
c. A hierogyphic composition sprouting arms. Deir el-Bahari, *c.* 1450 BC (Griffith 1898 : pl. 11)

they attach to bodies, or rest underfoot as place names. As if to clarify this link, Aztec writing found it necessary in painted texts to create lines or tethers to specify which figure belonged to which text (Houston & Zender 2018). Red lines might indicate family descent or link a figure to a relevant moment in time.

The Hieroglyphic Domain

The structured links of pictures to pictorial signs suggest that long-held definitions of writing may need adjustment. One view proposes that language records function in ways distinct from semasiographs, « meaning-signs » – although there may be points of overlap – and that meaning-signs differ in turn from imagery (S. Martin 2006 : 63 ; see also Boone 2000 : 64-86). Yet, in the case of hieroglyphs, pictorial writing appears to bond words and images. The most compelling understanding may be less in evolutionary terms, as scripts claw up the ladder towards the alphabet, than as « approaches to graphic representation » that address « a number of pressing communication problems » (S. Martin 2006 : 64, 78). At the same time, there is a pointed critique from James Elkins, who wishes to topple « the recurring fantasy » of pure notations, texts, and pictures (Elkins 1999 : 91). Specifications of sound, even if variably present, occupy a narrower range than meanings of a far more complex sort : Elkins is surely correct that the perceived unity of graphic expression, as opposed to an occasional admixture, is impossible (*Ibid.* : 240). This is no less so for the continued fascination that makers of the alphabet have for pictorial embellishments, through letters formed from writhing bodies and other conceits (Boeckeler 2011 ; Demeude 1996). But there is, from our perspective, less need to lasso the concept of « writing » to all semasiographs. Indeed, some notations, such as the Testerians of early colonial Mexico, might be best understood as examples of « radical under-lexicalizations », with focal words rendered as pictorial signs – logographs of the sort employed in Egyptian or Maya scripts (Boone, Burkhart & Tavárez 2017). The fuller content of these catechistic texts had to be stored in the mind of the reader/viewer. Naxi writing from China exhibits similar features (Li 1958). It may be that under-lexicalization, *i.e.*, a text stripped graphically to focal words only, comes to the fore when oral performance dominates the act of reading. Most examples of this mode of notation are noteworthy for their highly restricted use and their formation in conditions where other scripts and political forces (some colonial) exercised control over local populations.

Time offers one clarifying insight about Egyptian and Maya writing, for they differ in one important respect. Both continue to invest in pictorial writing. Unlike Egyptian writing, however, Maya had no cursive or pictorially reduced form that detaches from its referents in imagery. For Egyptian, cursive scripts developed in the following sequence : first hieratic, which began to emerge in the early third millennium BC, only a few centuries after the inception of hieroglyphic writing itself ; then, much later, in the first millennium BC, came demotic. In what became a digraphic and later multigraphic cultural code of considerable complexity, hieroglyphic writing was used in display settings and for its sacralizing force (Vernus 1990 ; Parkinson 1999 ; Baines 2012). The hieratic and demotic scripts occurred on portable artifacts ; in certain types of texts, they could accompany images or vignettes, but, unlike hieroglyphs, they were not directly integrated with these or into visual compositions. As the contrast shows, the continued commitment to hieroglyphic writing arises from the productive dialogue that hieroglyphic writing permitted with visual and aesthetic culture. In doing joint work, hieroglyphic writing and images sacralized and inserted their contents into an overall order, thus adding to the created world (Vernus 1990).

It stands to reason that pictorial scripts might have similar meta-discourses about their nature and origin[11]. For the Maya, signs appear to result from godly benefactions, offered to emerging males (note the gender) by an aged creator deity (Houston & Inomata 2009 : 257, fig. 9.5). Egyptian hieroglyphs were called *mdw-nṯr* (« godly words »), referring to both the divine and speech. According to one conception, the Memphite demiurge Ptah, in creating the things of the world through speech, also devised the hieroglyphs, which Thoth only had to transcribe to make concrete (Meeks 2018 : 142-145 ; Assmann 2013 : 54-56). The restricted nature of hieroglyphic writing is manifest in its description as *štꜣ* (« of difficult access »)[12], a restriction underscored yet further in late treatises of sacerdotal knowledge (Meeks 2018 : 151-156). Ritual texts were referred as *bꜣw rᶜ*, « emanations of Re (the sun god) », evoking the power that resided in them, while sources

11. Note that the term « hieroglyph », from *ἱερογλυφικός* (« sacred carved work »), is extraneous in both traditions. It looks back to Greek descriptions of the functional contrasts between various Egyptian scripts in use at the late time of Greek encounters with Egypt (*e.g.*, Assmann & Assmann 2013 : 33-35). On the positive, it aptly stresses the sacred grounding and sacralizing function of such writing, as well as its prestige and restricted register. But the frequent association with esotericism is misleading, as the restricted nature of both the Egyptian and Maya scripts does not, in general, imply an esotericism of contents. The term « hieroglyph » also ignores the important functions of both Egyptian and Maya hieroglyphic writing in public display (in necropoles and in cities, respectively). Note finally that hieroglyphs were often painted and not solely carved.

12. For example, on the master sculptor Irtysen's self-presentation, in which restricted knowledge is staged in and through writing itself, *c.* 2000 BC (Stauder 2018a).

from later times document that sacerdotal knowledge, including hieroglyphic writing, was transmitted in « Houses of Life », in which rituals to preserve cosmic order were also performed.

Even more telling is a set of less overt meta-discourses. Less declared than implicit in scribal practice, these include, for the Maya, the so-called pseudo-glyphs. Never intended to be legible, they draw interest principally because they represent what writing was thought to look like (Houston 2018b). They distill a series of design features – a prestigious non-presence, so to speak – that both recalls writing and departs utterly from it by vacating all sound or meaning. In Egypt, pseudo-hieroglyphs are found from the First Dynasty on, providing an implicit commentary on the highly restricted and prestigious nature of the script ; they also bear witness to a dynamic of exclusion and participation. To a degree, these pseudo-glyphs accord with an almost perverse attribute of pictorial scripts : the picture invites but the content excludes. This also applies to the other end of the spectrum of scribal practices, the virtuosic embellishments, visual poetry, and assorted experiments with enigmatic writing. As noted above, these extended practices pervade the signs pictorially, iconically, and semantically. Providing yet another implicit meta-discourse, these practices can be thought of as « super-hieroglyphic », going, through intensification, to the heart of what makes a hieroglyph.

Power and agency resided in Egyptian hieroglyphs (Pries 2016). Under certain conditions, graphs could function as images of the divine, much like divine statues that were conceived as bodies or receptacles for the deity. The concentration in certain temple inscriptions of highly iconic animate signs multiplied the number of places for divine indwelling. In magical practice, water poured over a hieroglyphic inscription would be consumed by a person ailing from snake or scorpion poisoning[13]. Certain categories of animate signs would be mutilated in a number of funerary contexts (*e.g.*, Schenkel 2011 : 133-152 ; Lacau 1913). Practices of *damnatio memoriae*, a systematic erasure of undesirable people or beings, entailed not only defacing the pictorial representations of the individual so targeted (particularly his sensory organs), but also erasing his name (Quack 2019). Like a pictorial representation, a name in hieroglyphs could bring about a presence. The Maya offer less evidence of textual defacement – usually the sensory organs of an image are mutilated (Houston, Stuart & Taube 2006 : 76, fig. 2.18 ; Just 2005). But they could deactivate a whole inscription, for example, by jumbling blocks of a hieroglyphic staircase. Composed of individual stones, these might be reordered and made deliberately confused or nonsensical by enemies (Martin & Grube 2008 [2000] : 73).

13. See Carina Kühne-Wespi (2019), also discussing other practices of ingesting Egyptian writing.

Further implicit meta-discourses lie in the inscriptional practices themselves. Hieroglyphic writing defines a register that is markedly distinct from ordinary communication. It comes with an extraordinary investment of exclusive symbolic and material resources. It is associated, furthermore, with particular registers of language characterized by a high stability of formulation. In relation to its display functions, hieroglyphic writing outcompetes any challenging discourses. It also bears the hallmarks of ritual language, inserting the inscribed contents into an order, and, in so doing, establishing and perpetuating that very order. Egyptian stelae often take the form of cosmograms, with heaven on top, supported by the signs of stability on either side, themselves resting on the ground. Inscribed on these, hieroglyphic writing repeats creation itself : it establishes order and dispels its opposite, the anomic and chaotic.

Yet another implicit meta-discourse may be inferred from later inscriptions at the city of Chichen Itza, Yucatan. Dating to the penultimate century AD, passages that in earlier times would have been contained in a single glyph block were spread across many, as though the target were now firmly latched on sound records : an expression on Las Monjas Lintel 4, positions B1-E2 reads « its lintel [is] the lord of the doorway of his house = **u-pa-ka-ba TUUN-ni-ya AJAW-wa ti-ʻi-IL yo-to-ti** ». Yet the **ya** prior to **AJAW** would not, in previous texts, have been divided into separate blocks. Revealing, perhaps, a shifted mindset, writing had become in large part a vehicle to the phonic text beyond. Writing was subtly reworked from a dense melding of message and medium to an arrangement highlighting content over graphic expression.

In an altogether different historical context, hieroglyphic inscriptions in Greco-Roman Egypt went almost in the opposite direction. In relation to the perception of a cultural break with the past, hieroglyphic writing, since the earlier first millennium BC, had begun experimenting with spellings that broke away from conventional, historically transmitted precursors. Further experimentation was made possible by the retraction of hieroglyphic and hieratic writing to the sacerdotal sphere in Greco-Roman times. No longer bound by display or more mundane functions, and possibly in reaction to perceived alphabetic ideologies associated with Greek writing, Egyptian writing could be explored to the full extent of its own perceived inherent potential. Possibilities that had long been in use were now exploited in full. As figurative signs enjoyed an existential link with the world, new signs, or variants of existing ones, were introduced in numbers. New values were also introduced, so that the polyvalency of many signs was greatly increased. These new values could be derived in varying ways : phonetic dimensions, visual referents, semantic dimensions, shapes, counterparts in the cursive

scripts, and a whole set of culturally encyclopedic associations. Implicit in these practices is yet another native meta-discourse on Egyptian hieroglyphic signs : rather than just two sides (« signifier, signified »), these were conceived of as having a multitude of facets ; moreover, these multiple facets were not arbitrary but given in the created world, of which hieroglyphic writing itself was a part. A virtuosic culmination occurred in the litanies of divine names at Esna that date to the early Roman period. In these, recurrent divine names and epithets important to the local theology were subjected to ever-varied spellings, based on multiple, often simultaneous levels : the phonetic, the visual, the semantic, and the allegorical (Sauneron 1982 ; Leitz 2001, 2008 ; Morenz 2002). While it remained fully grounded phonetically, hieroglyphic writing also served as a visual tribute to the deity, celebrating his or her various attributes and aspects. In this extreme form, it is at once visually immediate and hyper-exclusive. The open-ended set of possible associations between the signs was conceived, not just as a game, but as grounded in the existential links of signs to the world. Inscribed on the walls of temples, this « graphic alchemy » (Sauneron 1982 : 55-56) recreated the world as a multivalent system of signs.

Egyptian contexts such as the ones just evoked are late and limited to what must have been very small sacerdotal groups. They represent one significant exploration of the potential of hieroglyphic writing, but are not representative of its social distribution in earlier times. While the settings and social visibility varied considerably by place and time, hieroglyphic writing remained generally restricted throughout history, being associated with elite contexts, sacralizing functions, and display. In the late fourth and early third millennium Bc, Egyptian writing developed first in a hyper-restricted context, and was initially rarefied, just like the aesthetic culture in relation to which it evolved. Gradually, during the following millennia, hieroglyphic writing spread in space and society, while retaining a marked exclusionary role. In all cases, literacy was low ; in the Egyptian context, most scribes learnt only the cursive varieties, and in both the Maya and Egyptian traditions, competence in hieroglyphic writing cued high status. But, to operate with force, exclusion also requires some broader participation in hieroglyphic writing (Houston 1994). In select places, it had a monumental presence, even for those not able to read it. In places lacking inscribed monuments, portable objects – such as hieroglyphically inscribed sealings, seals, and amulets in Egypt – helped make hieroglyphic writing more broadly visible. Another form of participation is seen in pseudo-hieroglyphs, found in both the Maya and Egyptian traditions (Houston 2018b).

The paradoxes of hieroglyphic traditions, at once welcoming and exclusionary, must have operated with special vigor in societies that accentuated hierarchy. Pictures and pictured text, both authoritative claims to truth, reinforced a stated reality by showing it, depicting it, making it plainly valid. Ontological traits that imputed life (and presumed agency) to signs conferred even more weight to those claims. Yet a categorical exclusion risked little buy-in from viewers of differing status. The presence of recognizable objects assured « at least minimal access » to the widest readership and provided, as in Anatolian hieroglyphs, a means of discerning « the names of gods, kings, and cities » (Payne 2012 : 13). This delicate balance, of messages read, others only sensed with awe, may eventually take scholarship into an unexplored domain, that of processing of images and language in connected parts of the human brain. There, in the folds and synaptic interfusions of the mind, our question – what is a hieroglyph ? – finds further ramifications.

Ultimately, pictorial scripts did not endure. Yet, an Egyptian system lasting close to three and a half millennia and a Maya signary thriving for close to two would not be counted among the failures of human ingenuity. Independent of instrumentalist ideologies of communication often associated with alphabetic writing, hieroglyphic writing at once represented language and went far beyond that function of supposed, reductive transparency. Signs were filled with visually dense meaning. « Seeing » (of pictures), « reading » (of graphs), and perhaps « speaking » (from both) were understood as related processes, but with special weight given to the figural. Pictorialism exercised a lasting appeal, if obviously linked to the viability of a coherent tradition of picturing. The full-figure texts in Egyptian and Mayan writing are, in a sense, less anomalies than the fulfillment of their essence. To a notable extent, the withering of Egyptian and Maya imagery correlated with the decline and disappearance of their writing. Imagery, when robust, contributed to the staying power of hieroglyphic systems of writing. Coexistence was crucial to their joint survival, itself tied to the survival of a broader cultural encyclopedia, a thick mesh of worldviews, ideas, narratives, and actions surrounding hieroglyphic writing and its broader aesthetic culture.

Brown University
Department of Anthropology, Providence (United States)
Stephen_Houston@brown.edu

Ephe, Université Psl
Archéologie et philologie d'Orient et d'Occident (Aoroc-Umr 8546), Paris
andreas.stauder@ephe.psl.eu

KEYWORDS/*MOTS CLÉS*: hieroglyphs/*hiéroglyphes* – writing/*écriture* – Maya writing/*écriture maya* – Egyptian writing/*écriture égyptienne* – aesthetic culture/*culture esthétique* – signs/*signes* – visual communication/*communication visuelle*.

REFERENCES CITED

Anglería, Pedro Mártir de

1989 *Décadas del Nuevo Mundo*. Madrid, Polifemo (« Crónicas y memorias » 1).

Assmann, Jan

2013 « Etymographie : Zeichen im Jenseits der Sprache », in Aleida Assmann & Jan Assmann, eds, *Hieroglyphen…* : 37-64.

Assmann, Aleida & Jan Assmann, eds

2013 *Hieroglyphen. Stationen einer anderen abendländischen Grammatologie*. München, Wilhelm Fink (« Archäologie der literarischen Kommunikation » 8).

Aubin, Joseph-Marius-Alexis

1885 [1849] *Mission scientifique au Mexique et dans l'Amérique centrale*, 1. *Histoire. Recherches historiques et archéologiques. Mémoires sur la peinture didactique et l'écriture figurative des anciens Mexicains*. Intro. par Ernest-Théodore Hamy. Paris, Imprimerie nationale.

Baines, John

1985 *Fecundity Figures. Egyptian Personification and the Iconology of a Genre*. Warminster, Aris & Phillips / Chicago, Bolchazy-Carducci.

2007 *Visual and Written Culture in Ancient Egypt*. New York, Oxford University Press.

2012 « Scripts, High Culture, and Administration in Middle Kingdom Egypt », in Stephen Houston, ed., *The Shape of Script. How and Why Writing Systems Change*. Santa Fe, School for Advanced Research Press : 25-64.

Bennett, Jane

2010 *Vibrant Matter. A Political Ecology of Things*. Durham, Duke University Press.

Bodard, Gabriel & Simona Stoyanova

2016 « Epigraphers and Encoders : Strategies for Teaching and Learning Digital Epigraphy », in Gabriel Bodard & Matteo Romanello, eds, *Digital Classics Outside the Echo-Chamber. Teaching, Knowledge Exchange & Public Engagement*. London, Ubiquity Press : 51-68.

Boeckeler, Erika M.

2011 « Building Meaning : The First Architectural Alphabet », in Sarah Blick & Laura Gelfand, eds, *Push Me, Pull You*, 1. *Imaginative and Emotional Interaction in Late Medieval and Renaissance Art*. Leiden, Brill (« Studies in Medieval and Reformation Tradition » 156) : 149-195.

Bomhard, Anne-Sophie von

2012 *The Decree of Saïs. The Stelae of Thonis-Heracleion and Naukratis*. Oxford, Oxford Center for Maritime Archaeology, School of Archaeology (« Oxford Center for Maritime Archaeology Monograph » 7).

Boone, Elizabeth H.

2000 *Stories in Red and Black. Pictorial Histories of the Aztecs and Mixtecs*. Austin, University of Texas Press.

Boone, Elizabeth H., Louise M. Burkhart & David Tavárez

2017 *Painted Words. Nahua Catholicism, Politics, and Memory in the Atzaqualco Pictorial Catechism*. Washington, Dumbarton Oaks Research Library and Collection (« Studies in pre-Columbian Art and Archaeology » 39).

Call, Richard E.

1895 *The Life and Writings of Rafinesque*. Louisville, John P. Morton & Co (« Filson Club Publications » 10).

Cartari, Vicenzo

1615 *Le Vere e Nove Imagini de gli dei delli antichi di Vicenzo Cartari Reggiano*. Padua, Appresso Pietro Paolo Tozzi, nella stampa del Pasquati.

Cauville, Sylvie

1990 « Les inscriptions dédicatoires du temple d'Hathor à Dendera », *Bulletin de l'Institut français d'archéologie orientale* 90 : 83-114. En ligne : https://www.ifao.egnet.net/bifao/090/06/

2002 « Entre exigence décorative et significations multiples : les graphies suggestives du temple d'Hathor à Dendara », *Bulletin de l'Institut français d'archéologie orientale* 102 : 91-135.

Champollion, Jean-François

1822 *Lettre à M. Dacier, secrétaire perpétuel de l'Académie royale des Inscriptions et Belles-Lettres, relative à l'alphabet des hiéroglyphes phonétiques employés par les Égyptiens pour inscrire sur leurs monuments les titres, les noms et les surmoms des souverains grecs et romains*. Paris, Firmin Didot. En ligne : https://gallica.bnf.fr/ark:/12148/bpt6k396352.texteImage

1824 *Précis du système hiéroglyphique des anciens Égyptiens, ou Recherche sur les éléments premiers de cette écriture sacrée*. Paris, Treuttel & Würtz, 2 vol.

Coe, Michael D.

1992 *Breaking the Maya Code*. New York, Thames & Hudson.

Darnell, John Coleman *et al.*

2005 « Two Early Alphabetic Inscriptions from the Wadi el-Ḥôl : New Evidence for the Origin of the Alphabet from the Western Desert of Egypt », *The Annual of the American Schools of Oriental Research* 59 : 63-124.

David, Madeleine V.

1965 *Le Débat sur les écritures et l'hiéroglyphe aux XVII^e^ et XVIII^e^ siècles et l'application de la notion de déchiffrement aux écritures mortes*. Paris, Sevpen (« Bibliothèque générale de l'Ephe, VI^e^ section »).

Davletshin, Albert

2012 « Name in the *Kohau Rongorongo* script (Easter Island) », *Journal de la Société des océanistes* 134 : 95-110. En ligne : https://journals.openedition.org/jso/6658?lang=en

2017 « Allographs, Graphic Variants and Iconic Formulae in the Kohau Rongorongo Script of Rapa Nui (Easter Island) », *The Journal of the Polynesian Society* 126 (1) : 61-92.

Dehaene, Stanislas

2009 *Reading in the Brain. The Science and Evolution of a Human Invention*. New York, Viking.

Demeude, Hugues

1996 *The Animated Alphabet*. Transl. from the French by Ruth Sharman. London, Thames & Hudson.

Dempsey, Charles

1988 « Renaissance Hieroglyphic Studies and Gentile Bellini's *Saint Mark Preaching in Alexandria* », in Ingrid Merkel & Allen G. Debus, eds, *Hermeticism and the Renaissance. Intellectual History and the Occult in Early Modern Europe*. Washington, Folger Shakespeare Library / London, Associated University Presses : 342-365.

Drioton, Étienne

1940 « Recueil de cryptographie monumentale », *Annales du Service des Antiquités de l'Égypte* 40 : 305-429.

Drucker, Johanna

2014 *Graphesis. Visual Forms of Knowledge Production*. Cambridge, Harvard University Press.

Duell, Prentice

1938 *The Mastaba of Mereruka*, 1. *Chambers A 1-10*. Chicago, University of Chicago Press (« Oriental Institute Publications » 31).

Elkins, James

1999 *The Domain of Images*. Ithaca, Cornell University Press.

Fabre-Muller, Bénédicte, Pierre Leboulleux & Philippe Rothstein

2014 *Léon de Rosny, 1837-1914. De l'Orient à l'Amérique*. Villeneuve d'Ascq, Presses universitaires du Septentrion (« Documents et témoignages »).

Finkel, Irving

2010 « Strange Byways in Cuneiform Writing », in Alex de Voogt & Irving Finkel, eds, *The Idea of Writing. Play and Complexity*. Leiden-Boston, Brill : 7-25.

Fischer, Henry G.

1972 « Some Emblematic Uses of Hieroglyphs with Particular Reference to an Archaic Ritual Vessel », *Metropolitan Museum Journal* 5 : 5-23.

1977a *The Orientation of Hieroglyphs*, 1. *Reversals*. New York, Metropolitan Museum of Art (« Egyptian Studies » 2).

1977b « The Evolution of Composite Hieroglyphs in Ancient Egypt », *Metropolitan Museum Journal* 12 : 5-19.

1984 *The Renaissance Sackbut and its Use Today*. New York, Metropolitan Museum of Art.

1986 *L'Écriture et l'art de l'Égypte ancienne. Quatre leçons sur la paléographie et l'épigraphie pharaoniques*. Paris, Presses universitaires de France (« Essais et conférences. Collège de France »).

1996 *Varia Nova*. New York, Metropolitan Museum of Art (« Egyptian Studies » 3).

Fischer, Steven R.

1997 *Rongorongo. The Easter Island Script : History, Traditions, Texts*. Oxford, Clarendon Press (« Oxford Studies in Anthropological Linguistics » 14).

Gates, William

1931 *Outline Dictionary of Maya Glyphs. With a Concordance and Analysis of their Relationships*. Baltimore, J. Hopkins Press.

Glassie, John

2012 *A Man of Misconceptions. The Life of an Eccentric in an Age of Change*. New York, Riverhead Books.

Glassner, Jean-Jacques

2000 *Écrire à Sumer. L'invention du cunéiforme*. Paris, Le Seuil (« L'Univers historique »).

2019 *Le Devin historien en Mésopotamie*. Leiden-Boston, Brill (« (Ancient Magic and Divination » 16).

Godwin, Joscelyn

2009 *Athanasius Kircher's Theatre of the World. The Life and Work of the Last Man to Search for Universal Knowledge*. Rochester, Inner Traditions.

Goldwasser, Orly

2002 *Prophets, Lovers and Giraffes. Wor[l]d Classification in Ancient Egypt*. Wiesbaden, Otto Harrassowitz (« Göttinger Orientforschungen » 4 ; « Reihe Ägypten » 38).

Griffith, Francis Ll.

1898 *A Collection of Hieroglyphs. A Contribution to the History of Egyptian Writing*. London, Offices of the Egypt Exploration Fund (« Archeological Survey of Egypt » 6).

Hamann, Byron Ellsworth

2008 « How Maya Hieroglyphs Got Their Name : Egypt, Mexico, and China in Western Grammatology since the Fifteenth Century », *Proceedings of the American Philosophical Society* 152 (1) : 1-68.

Hanks, William F.

2010 *Converting Words. Maya in the Age of the Cross*. Berkeley, University of California Press (« Anthropology of Christianity » 6).

Hawkins, John D.

2000 *Corpus of Hieroglyphic Luwian Inscriptions*, vol. I. *Inscriptions of the Iron Age*. Part 1 : *Text, Introduction, Karatepe, Karkamiš, Tell Ahmar, Maraş, Maltya, Commagene*. Berlin-New York, De Gruyter.

Houston, Stephen D.

1994 « Literacy Among the Precolumbian Maya : A Comparative Perspective », in Elizabeth H. Boone & Walter D. Mignolo, eds, *Writing Without Words. Alternative Literacies in Mesoamerica and the Andes*. Durham, Duke University Press : 27-49.

1998 « Classic Maya Depictions of the Built Environment », in Stephen D. Houston, ed., *Function and Meaning in Classic Maya Architecture*. Washington, Dumbarton Oaks Research Library and Collection : 333-372.

2016 « Jesuits, Angels, and Pipil Writing », *Maya Decipherment. Ideas on Ancient Maya Writing and Iconography*. En ligne : https://decipherment.wordpress.com/2016/08/08/jesuits-angels-and-pipil-writing/

2018a *The Gifted Passage. Young Men in Classic Maya Art and Text*. New Haven, Yale University Press.

2018b « Writing that Isn't : Pseudo Scripts in Comparative View », *L'Homme* 227-228 : 21-48.

2020 « Impossible Unities : Full-Figure Glyphs among the Maya », in John Bodel & Stephen Houston, eds, *The Hidden Language of Ancient Writing* (Forthcoming).

Houston, Stephen D., Oswaldo Chinchilla Mazariegos & David Stuart, eds

2001 *The Decipherment of Ancient Maya Writing*. Norman, University of Oklahoma Press.

Houston, Stephen D. & Takeshi Inomata

2009 *The Classic Maya*. New York, Cambridge University Press (« Cambridge World Archaeology »).

Houston, Stephen & Felipe Rojas

2020 « Sourcing Novelty : On the "Secondary Invention" of Writing System », *Word* (Forthcoming).

Houston, Stephen D., David Stuart & Karl Taube

2006 *The Memory of Bones. Body, Being, and Experience among the Classic Maya*. Austin, University of Texas Press (« Joe R. and Teresa Lozano Long Series in Latin American and Latino Art and Culture »).

Houston, Stephen D. & Marc Zender

2018 « Touching Text in Ancient Mexican Writing », *Maya Decipherment. Ideas on Ancient Maya Writing and Iconography*. En ligne : https://mayadecipherment.com/2018/06/10/touching-text-in-ancient-mexican-writing/

Humboldt, Wilhelm von

1826 « Über die Buchstabenschrift und ihren Zusammenhang mit dem Sprachbau », *Abhandlungen der Königlichen Akademie der Wissenschaften in Berlin* : 161-188. En ligne : https://visuallibrary.net/130755

Iversen, Erik

1961 *The Myth of Egypt and its Hierolgyphs in European Tradition*. Copenhagen, Gad.

Just, Bryan R.

2005 « Modifications of Ancient Maya Sculpture », *Res. Anthropology and Aesthetics* 48 : 69-82.

Klotz, David

2015 « Two Hymns to Isis from Philae Revisited (Žabkar, *Hymns* 1-2) », *Bulletin de la Société d'égyptologie de Genève* 30 : 75-108.

2020 « The Enigmatic Frieze of Ramesses II at Luxor Temple », in David Klotz & Andréas Stauder, eds, *Enigmatic Writing in the Egyptian New Kingdom*. Berlin, De Gruyter (« Zeitschrift für Ägyptische Sprache und Altertumskunde », Beihefte) (Forthcoming).

Klotz, David & Marina Brown

2016 « The Enigmatic Statuette of Djehutymose (Mfa 24.743) : Deputy of Wawat and Viceroy of Kush », *Journal of the American Research Center in Egypt* 52 : 269-302.

Kühne-Wespi, Carina

2019 « Papyrus trinken und Hieroglyphen essen Praktiken der Schriftverinnerlichung im pharaonischen Ägypten », in Joachim Friedrich Quack, Klaus Oschema & Carina Kühne-Wespi, eds, *Zerstörung von Geschriebenem. Historische und transkulturelle Perspektiven*. Berlin-Boston, De Gruyter (« Materiale Textkulturen » 22) : 341-358.

Lacadena, Alfonso

2008 « Regional Scribal Traditions : Methodological Implications for the Decipherment of Nahuatl Writing », *The Pari Journal* 8 (4) : 1-22.

Lacau, Pierre

1913 « Suppressions et modifications des signes dans les textes funéraires », *Zeitschrift für ägyptische Sprache und Altertumskunde* 51 (1-2) : 1-64.

Leitz, Christian

2001 « Die beiden kryptographischen Inschriften aus Esna mit den Widdern und Krokodilen », *Studien zur Altägyptischen Kultur* 29 : 251-276.

2008 « Les trente premiers versets de la Litanie d'Osiris à Esna (*Esna* 217) », *Revue d'Égyptologie* 59 : 231-266.

Li, Li-ts'an

1958 « A Report and Study of the Naxi Manuscripts in the Library of Congress », *Bulletin of the Institute of Ethnology, Academia Sinica* 6 : 131-165.

Loos, Adolf

1970 [1908] « Ornament and Crime », in Ulrich Conrads, ed., *Programs and Manifestoes on 20th Century Architecture*. Cambridge, Mit Press : 19-24.

Louis, Françoise

2003 « Written Ornament-Ornamental Writing : Birdscript of the Early Han Dynasty and the Art of Enchanting », *Ars Orientalis* 33 : 10-31.

Martin, Henri-Jean

1994 [1988] *The History and Power of Writing*. Transl. by Lydia G. Cochrane. Chicago, University of Chicago Press.

Martin, Simon

2006 « On Pre-Columbian Narrative : Representation across the Word-Image Divide », in Jeffrey Quilter & Mary Miller, eds, *A Pre-Columbian World*. Washington, Dumbarton Oaks Research Library and Collection : 55-105.

Martin, Simon & Nikolai Grube

2008 [2000] *Chronicle of the Maya Kings and Queens. Deciphering the Dynasties of the Ancient Maya*. London, Thames & Hudson.

Maul, Stefan

1999 « Das Wort im Worte : Orthographie und Etymologie als hermeneutische Verfahren babylonischer Gelehrter », in Glenn Most, ed., *Commentaries/ Kommentare*. Göttingen, Vandenhoeck & Ruprecht (« Aporemata. Kritische Studien zur Philologiegeschichte » 4) : 1-18.

Meeks, Dimitri

2004 *Les Architraves du temple d'Esna. Paléographie*. Le Caire, Institut français d'archéologie orientale (« Paléographie hiéroglyphique » 1).

2007 « La paléographie hiéroglyphique : une discipline nouvelle », *Égypte, Afrique & Orient* 46 : 3-14.

2018 *Les Égyptiens et leurs mythes. Appréhender un polythéisme*. Paris, Hazan (« La Chaire du Louvre »).

Morenz, Ludwig D.

1998 « Besondere Zeichen aus der späten XI. Dynastie : zu den Inschriften des Antef, Sohn der Myt », *Studien zur Altägyptischen Kultur* 25 : 237–249.

2002 « Schrift-Mysterium : Gottes-Schau in der visuellen Poesie von Esna – insbesondere zu den omnipotenten Widder-Zeichen zwischen Symbolik und Lesbarkeit », in Jan Assmann & Martin Bommas, eds, *Ägyptische Mysterien ?* München, Wilhelm Fink : 77-94.

2008 *Sinn und Spiel der Zeichen. Visuelle Poesie im Alten Ägypten*. Köln, Böhlau (« Pictura et Poesis » 21).

2012 *Schriftentwicklung im Kulturkontakt. Das erste Jahrtausend der Alphabetschrift*. Berlin, EB-Verlag (« Thot. Beiträge zur historischen Epistemologie und Medienarchäologie » 1).

2019 *Sinai und Alphabetschrift. Die frühesten alphabetischen Inschriften und ihr kanaanäisch-ägyptischer Entstehungshorizont im Zweiten Jahrtausend v. Chr*. Berlin, EB-Verlag (« Studia sinaitica » 3).

Morra, Lucia & Carla Bazzanella, eds
2003 *Philosophers and Hieroglyphs*. Torino, Rosenberg & Sellier.

Neurath, Otto
1936 *International Picture Language. The First Rules of Isotype*. London, Kegan Paul / Trench, Trubner (« Psyche Miniature » 83).

Oppitz, Michael & Elisabeth Hsu, eds
1998 *Naxi and Moso Ethnography. Kin, Rites, Pictographs*. Zürich, Völkerkundenmuseum der Universität Zürich.

Parkinson, Richard
1999 *Cracking Codes. The Rosetta Stone and Decipherment*. Berkeley, University of California Press.

Payne, Annick
2012 *Iron Age Hieroglyphic Luwian Inscriptions*. Atlanta, Society of Biblical Literature (« Writings from the Ancient World » 29).
2014 [2004] *Hieroglyphic Luwian. An Introduction with Original Texts*. Wiesbaden, Harrassowitz (« Subsidia et Instrumenta Linguarum Orientis » 2).
2015 *Schrift und Schriftbildlichkeit. Die anatolische Hieroglyphenschrift*. Wiesbaden, Harrassowitz.

Petrucci, Armando
1993 *Public Lettering. Script, Power, and Culture*. Transl. by Linda Lappin. Chicago, University of Chicago Press.

Porter, David
2001 *Ideographia. The Chinese Cipher in Early Modern Europe*. Stanford, Stanford University Press.

Pries, Andreas H.
2016 « *ἔμψυχα ἱερογλυφικά* I : eine Annäherung an Wesen und Wirkmacht ägyptischer Hieroglyphen nach dem indigenen Zeugnis », in Sandra Lippert, Maren Schentuleit & Martin Stadler, eds, *Sapientia Felicitas. Festschrift für Günter Vittmann zum 29. Februar 2016*. Montpellier, Université Paul Valéry-Montpellier III (« Cahiers de l'équipe "Égypte Nilotique et Méditerranéenne" » 14) : 449-488.

Qiu Xigui
2000 *Chinese Writing*. Transl. by Gilbert L. Mattos and Jerry Norman. Berkeley, Society for the Study of Early China and the Institute of East Asian Studies, University of California (« Early China Special Monograph Series » 4.).

Quack, Joachim Friedrich
2019 « "Lösche seinen Namen aus!" : Zur Vernichtung von personenreferenzierter Schrift und Bild im Alten Ägypten », in Joachim Friedrich Quack, Klaus Oschema & Carina Kühne-Wespi, eds, *Zerstörung von Geschriebenem. Historische und transkulturelle Perspektiven*. Berlin-Boston, De Gruyter (« Materiale Textkulturen » 22) : 43-102.

Rafinesque, Constantine S.
1832 « Philology, First Letter to Mr. Champollion, on the Graphic Systems of America, and the Glyphs of Otolum or Palenque, in Central America », *Atlantic Journal, and Friend of Knowledge* 1 (1) : 4-6. En ligne : https://gallica.bnf.fr/ark:/12148/bpt6k980629/f9.image

Rilly, Claude
2008 « The Last Traces of Meroitic ? A Tentative Scenario for the Disappearance of the Meroitic Script », in John Baines, John Bennet & Stephen Houston, eds, *The Disappearance of Writing Systems. Perspectives on Literacy and Communication*. London, Equinox : 183-206.

Rosny, Léon de
1870 [1860] *Les Écritures figuratives et hiéroglyphiques des différents peuples anciens et modernes*. Paris, Maisonneuve.

Sampson, Geoffrey
1985 *Writing Systems. A Linguistic Introduction*. Stanford, Stanford University Press.

Sauneron, Serge

1982 *L'Écriture figurative dans les textes d'Esna*. Le Caire, Institut français d'archéologie orientale (« Publications de l'Ifao. Esna » 8).

Saussure, Ferdinand de

1966 [1959] *Course in General Linguistics*. Ed. by Charles Bally, Albert Sechehaye & Albert Riedlinger. Transl. by Wade Baskin. New York, McGraw-Hill.

Schenkel, Wolfgang

2011 « Wie ikonisch ist die altägyptische Schrift ? », *Lingua Aegyptia* 19 : 125-153.

2012 « The Decipherment of Hieroglyphs and Richard Lepsius », *The Bulletin of the Australian Centre of Egyptology* 23 : 105-144.

Selz, Gebhard J., Colette Grinevald & Orly Goldwasser

2017 « The Question of Sumerian "Determinatives" : Inventory, Classifier Analysis, and Comparison to Egyptian Classifiers from the Linguistic Perspective of Noun Classification », *Lingua Aegyptia* 25 : 281-344.

Silverstein, Michael

2014 « Denotation and the Pragmatics of Language », in N. J. Enfield, Paul Kockelman & Jack Sidnell, eds, *The Cambridge Handbook of Linguistic Anthropology*. Cambridge-New York, Cambridge University Press : 128-157.

Stauder, Andréas

2018a « Staging Restricted Knowledge : The Sculptor Irtysen's Self-Presentation », in Gianluca Miniaci *et al.*, eds, *The Arts of Making in Ancient Egypt. Voices, Images and Objects of Material Producers, 2000-1550 Bc*. Leiden, Sidestone Press : 239-271.

2018b « On System-Internal and Differential Iconicity in Egyptian Hieroglyphic Writing », *Signata. Annales de Sémiotique* 9 : 365-390. En ligne : https://journals.openedition.org/signata/1927

2020 « Dazzled and Absorbed : Delayed Reading in Altered Egyptian Hieroglyphic Writing », in John Bodel & Stephen Houston, eds, *The Hidden Language of Ancient Writing*. Cambridge, Cambridge University Press (Forthcoming).

Stauder, Andréas & David Klotz, eds

2020 *Enigmatic Writing in the Egyptian New Kingdom*. Berlin, De Gruyter (« Zeitschrift für Ägyptische Sprache », Beihefte) (Forthcoming).

Stauder-Porchet, Julie

2020a « Harkhuf's Inscriptions, 2. The Inscribed Facade », *Zeitschrift für Ägyptische Sprache und Altertumskunde* (Forthcoming).

2020b « Meaningful Features of Inscriptional Layout in Inscriptions of the Egyptian Old Kingdom », in Christelle Alvarez & Yuri Grebnev, eds, *Transposition and Monumentality of Writing in Pre-Modern Epigraphic and Manuscript Traditions*. Special issue of *Manuscript and Text Cultures* 1 (Forthcoming).

Stuart, George E.

1989 « The Beginning of Maya Hieroglyphic Study : contributions of Constantine S. Rafinesque and James H. McCulloh, Jr. », *Research Reports on Ancient Maya Writing* 28-29 : 11-28. En ligne : http://www.mesoweb.com/bearc/cmr/RRAMW29.pdf

Thompson, J. Eric S.

1971 [1950] *Maya Hieroglyphic Writing. An Introduction*. Norman, University of Oklahoma Press (« Civilization of the American Indian Series » 56).

Verhoeven, Ursula

2015 « Stand und Aufgaben der Erforschung des Hieratischen und der Kursivhieroglyphen », in Ursula Verhoeven, ed., *Ägyptologische « Binsen »-Weisheiten I-II. Neue Forschungen und Methoden der Hieratistik*. Mainz, Akademie der Wissenschaften und Literature/ Stuttgart, Franz Steiner : 23-64.

Vernus, Pascal

1990 « Les “espaces de l'écrit” dans l'Égypte pharaonique », *Bulletin de la Société française d'égyptologie* 119 : 35-56.

2003 « Idéogramme et phonogramme à l'épreuve de la figurativité : les intermittences de l'homophonie », in Lucia Morra & Carla Bazzanella, eds, *Philosophers and Hieroglyphs*. Torino, Rosenberg & Sellier : 196-218.

2020 « Script and Figurativity : Modelling the Relationships between Image and Writing in Ancient Egypt », in Ludwig Morenz & Andréas Stauder, eds, *Niltal und Zweistromland. Die Anfänge der Kulturtechnik Schreiben im 4. und frühen 3. Jt. v. Chr*. Berlin, EB-Verlag (« Thot. Beiträge zur historischen Epistemologie und Medienarchäologie ») (Forthcoming).

Zender, Marc

2008 « One Hundred and Fifty Years of Nahuatl Decipherment », *The PARI Journal* 8 (4) : 24-37. En ligne : https://www.academia.edu/3678186/One_Hundred_and_Fifty_Years_of_Nahuatl_Decipherment_PARI_Journal_2008_

ABSTRACT/*RÉSUMÉ*

Stephen Houston & Andréas Stauder, *What Is a Hieroglyph ?* — We consider two unrelated traditions of hieroglyphic writing, Maya and Egyptian, to discuss distinctive features of such mixed, logo-phonetic writing systems. Hieroglyphic scripts are characterized by their sustained pictoriality and by sign forms that are not reducible to stroke, line patterns or fonts. Moreover, the systems are tightly integrated with a broader aesthetic culture, and represent an encyclopedically dense mode of visual communication. Independent of instrumentalist ideologies of communication often associated with alphabetic writing, hieroglyphic writing goes far beyond that function of supposed, reductive transparency. Implicit meta-discourses point to the fundamentally distinct ideologies of hieroglyphic writing. Hieroglyphic signs do not just stand for linguistic values : they are inviolable things in their own right, suggesting a particular ontology and a capacity for performance. Excess, on both the visual and the semantic levels, distinguishes hieroglyphic writing, and can be variously accentuated in diverse contexts. At once inviting and exclusionary, the two systems thrived for millennia in diverse and changing societies, in inextricable collaboration with their aesthetic cultures and worldviews.

Stephen Houston & Andréas Stauder, *Qu'est-ce qu'un hiéroglyphe ?* — Parmi les systèmes d'écriture mixtes, logo-phonétiques, se distinguent les écritures hiéroglyphiques. Afin de déterminer ce qui fait le propre de celles-ci, nous considérons les deux grandes traditions, historiquement indépendantes, d'écriture hiéroglyphique : maya et égyptienne. Les écritures hiéroglyphiques se caractérisent par leur pictorialité, maintenue à travers le temps, et par des signes dont les formes ne sont pas réductibles à une combinaison de lignes ou de traits (ni, donc, à des polices typographiques). Ces écritures sont étroitement intégrées à une culture esthétique plus large et constituent un mode de communication visuelle dense et encyclopédique. Les pratiques, dans lesquelles on reconnaît des métadiscours implicites, impliquent des idéologies de l'écriture hiéroglyphique fondamentalement différentes de celles d'instrumentalité et de transparence, souvent associées à l'écriture alphabétique. Les signes hiéroglyphiques ne sont pas seulement vecteurs de valeurs linguistiques : ils sont eux-mêmes des entités inviolables, suggérant une ontologie et une capacité d'action spécifiques. De manière inhérente, l'écriture hiéroglyphique est excessive, tant sur le plan visuel que sémantique – une dimension qui peut être diversement accentuée selon les contextes. À la fois ouvertes et exclusives, les deux traditions d'écriture hiéroglyphique se sont développées pendant des millénaires dans des sociétés diverses et en mutation, en un lien indissociable avec leurs cultures esthétiques et visions du monde de ces sociétés.