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# The emblematic script of the Aztec codices as a particular semiotic type of writing system

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This paper addresses the use of emblems in the representation of language units in writing systems. The emblematic principle works in the early stages of writing as a transition to morphosyllabic writing; the Aztec manuscripts show the most typical examples of this. Phono-emblems function as subtitles or inscriptions to the pictorial compositions of common content. Language structure should be noted as one of the factors constraining the development of the Aztec script. It may be the polysynthesisism of the structure of the Nahuatl language, which allows long series of syllables within an incorporative complex. Emblems are restricted to a certain number of positions, so they may not have been able to maintain the strict order of a morpheme row, as needed for predicative phrase; only name phrases with more transparent/predictable structure could be written phonetically. In modern writing, the emblematic principle is used along with the linearity principle: while the latter unrolls the text in the consequent order, the former represents hierarchic information as an integral graphic composition.

**Keywords:** historical writing systems, emblem, Aztec script, polysynthesis, Nahuatl

## 1. Did the Aztecs have phonographic writing?

It is generally accepted that Aztec codices represent brilliant examples of pictography with single instances of syllabic spelling. In 1849, the first investigator of Aztec manuscripts Joseph Aubin presented examples of syllabic spellings of personal names (*itz-co-atl*, *mo-cauah-zo-ma*) and of the place name *Teocaltitlan* (*te-o-cal-tlan*, with the omission of the syllable *-ti-*). These examples, though, could not convince the majority of scientists that there was an Aztec tradition of elaborated phonography.

Nevertheless, in the 20th century the idea of a developed phoneticism of Aztec script was seconded by Nickolson (1973: 1–46) and is currently being reinforced by

Alphonso Lacadena (2008: 1–23). As Lacadena has shown, place names and personal names mostly have a phonetic transcription: The scribes not only used ideographic, but also syllabic signs and their combinations, employing main conventions of morphosyllabic writing: rebus substitutions, redundant phonetic indications, and pure syllabic spellings. Lacadena has also demonstrated that the Aztec script features a set of syllabic signs, which was regularly used by the scribes of different local schools. He thus concludes that the Aztec script in its essential features does not differ from other ancient morphosyllabic systems — Sumerian or Egyptian.

## 2. The Aztec script at the very beginning of proper writing

### 2.1 The Aztec script as a separate stage in the evolution of writing

Today, after Knorozov's decipherment of Maya writing and the discovery of Zapotec and Olmec monuments with inscriptions, the indigenous nature of the Mesoamerican writing tradition is not in doubt. The Aztec script stands in this tradition and can be regarded as one of several forms: Mixtec, Zapotec, Olmec, and Maya. Although they share some graphic images they are all different: Mixtec is rather ideographic, Maya is morphosyllabic, and Zapotec and Olmec have not been deciphered yet, but are presumably morphographic.

I am inclined to regard the Aztec script as a separate stage in the evolution of writing and as a particular semiotic type, different from ideography and from proper morphosyllabic writing. Considering pictography and ideography as proto-writing (following Gelb 1963 as well as Diakonoff 1982) and the consistent phonetic component in any text as the main characteristic of phonography (morphosyllabic writing being its first step), then it should be assumed that the Aztec script is placed at the very beginning of morphosyllabic writing. What distinguishes it from the preceding stage of proto-writing, which is represented for example in the Winter Counts and other monuments of North American writing or possibly in the Mixtec manuscripts, is its stable phonetic component.

Nevertheless, the following factors distinguish the Aztec script from the morphosyllabic stage:

1. The distinct function of phonetic spelling in the structure of pictorial composition (textogram): Phonetic spelling is subordinate to the pictographic representation of events or descriptive subjects. Its function is comparable to that of a caption;
2. The absence of phonetic spellings of predicate phrases: Only name phrases (place names, personal names) are represented;

3. The writing of names in the form of an emblem, composed of a restricted number of elements in no strict order (their arrangement can be interpreted logically as well as phonetically);
4. Syncretism of images: One symbol can stand for a sequence of two morphemes;
5. The absence of signs for semantic determinators, whose function is proper to developed morphosyllabic writing.

Nevertheless, the use of conventions of morphosyllabic writing (rebus substitutions, redundant phonetic indications, etc.) and the very fact of a stable tradition of such conventions allow considering this script as a peculiar, distinct beginning stage in the evolution of proper writing. I propose naming this type of Aztec writing *emblematic script*: it is the emblem with its complex structure of meaning rendered by graphic combination that is its main unit. Thus, emblematic script may be characterized as ‘writing of inscriptions’, or as ‘illustrative writing’, a stage in writing common to historical writing systems. At this stage, the picture is prominent and conserves its iconic ‘fascinating’ power (using Knorozov’s (1973) term of ‘fascination’). More details on characteristics of the emblematic script follow in the next chapters.

## 2.2 Functions of pictorial signs in Aztec manuscript

The Aztec codex can be compared to a children’s book, where the main content is represented in the picture and the text is only an inscription. In adults’ books, these elements are in inverse proportion: the text codifies the main content and the picture is only an illustration, an additional expressive means. Nevertheless, the Aztec codex differs from a children’s book in the pictures’ function, as Aztec ‘pictures’ are either iconic or indexical and fulfil two types of functions:

- Iconic signs represent events (e.g. conquests of towns, births, marriages, deaths of rulers, their feats) or descriptive subjects (e.g. tributes, penalties), and
- Indexical signs (in Peircean sense) determine their concrete circumstances (dates, locations, titles and names, number of objects).

## 2.3 Pictorial emblems and linguistic emblems

In the history of writing, the term *emblem* was used by Heinrich Berlin in his investigation into the designation of Maya place names (Berlin 1958:111–19). Yet his comprehension of the term *emblem* presupposed its iconographic and not linguistic nature. The emblem was regarded not as a readable sign but as a sign requiring interpretation.

I presuppose that the indexical function is characteristic to an emblem as a writing unit. Thus, a writing/linguistic emblem (or an emblem as a unit of a linguistic writing system) has a non-linear graphic structure, a compound structure of meaning and an indexical function (the last is the topmost; the meaning can be deciphered from its graphic structure, the function is marked with its position). So the linguistic emblem is a readable sign, representing a (compound) language unit.

In this general definition, the linguistic emblem can be compared to the more common notion of an emblem as a pictorial image with accompanying text (motto and verse, inscription and subscription). Pictorial emblems in Renaissance art are examples of this common type of emblem (Elkins 2003: 105–18) the same as modern emblems referring to a fixed object (organization, union). These emblems are mostly self-sufficient, though, while a linguistic emblem is embedded in its context but opposes it. If the context is made of linear graphemes, an emblem is marked as a pictorial unit; if the context is pictorial, a linguistic emblem breaks its logical coherence.

To recognize a linguistic emblem may be somehow a detective problem. If there is any fusion between iconic image and indexical image that “asks for incomplete reading and incomplete viewing”, there is also a “feeling of meaning, the sense that meaning is present [...] A feeling of meaning is an intuition of meaning, the result of mingling ‘word’ and ‘image’, emblem and picture” (Elkins 2003: 113).

## 2.4 Linear and emblematic order of writing

I assume that the use of emblems may be extended to the common principle of writing, along with the principle of linearity. Although the principle of linearity has not yet been exhaustively defined, it is characterized by the consequent order of graphemes and their stable position in a row. Sometimes it presupposes the symbolic, geometric character of signs (as opposed to signs with figurative character). So the Linear B script may be qualified as linear in the first sense but cannot be qualified as such in the second. Graphemes in a linear row (even those of geometric image, hence ‘linear signs’) can change their position or orientation at early stages of writing (in early Phoenician inscriptions as well as in childish scribbles) — as if they were items per se in a space and not in a row — being a relic of emblematic writing.

The emblematic principle presupposes the lay-out of meaningful elements not in a row but in a frame. The integration of the elements in a whole of an emblem ensures the rational use of the inner space of a sign, as in a Chinese character where the same component may take different positions, adapting to their forms. When elements of a character take a stable position, the full integration is achieved

— then the whole may be considered as a linear sign in a row of similar ones; when such a character is included in a foreign writing system (such as Korean), it is prominent in the text as a *heterogram* (or *xenogram*) with emblematic nature.

In the descriptions of early writing systems, the main attention is usually given to images and principles of their reference. While the principle of pictography is iconic — the use of visible, direct reference — the principle of ideography is the use of indirect reference, either metonymic or metaphoric. Both principles are supplementary to each other, so pictograms and ideograms can coexist in the same ideographic system. The traditional pair terms *pictogram* and *ideogram* are not quite appropriate in a semiotic sense as they are based upon different aspects of the sign: the picture (*picto-*) is a *signans* of a sign, while the idea (*ideo-*) is its *signatum*; but a picture can represent any idea as well as an object — so there is no definite distinction between a pictogram and an ideogram. Therefore some scholars avoid the term *ideogram* (Rogers (2005:32) uses ‘abstract pictograms’ for ideograms). The present article follows Diakonoff’s definition (Diakonoff 1982:295) of the *ideogram* as a sign corresponding to a cluster of notions, connected with each other through semantic associations, which may be expressed in words. In the plan of expression, an ideogram is a simple single element of a system, while a pictogram, in addition, may be a complex iconic representation.

The principles of pictography and ideography seem substantial, the linear and emblematic principles being merely technical; but they can have their own productive sense. While linear notation arranges (linear) signs in a row in fixed order, emblematic notation arranges (pictorial) signs as a composition or a frame. In its perfect form, linear order is an achievement and property of alphabetic writing, where the sequence of sounds in speech is duly represented, while emblematic order is a property of ideography. Between these two types of writing there is a sphere where both principles can work supplementary.

## 2.5 Semiotic structure of the Aztec pictorial sign

As argued in Chapter 2.1, the Aztec script represents a stage in the development of writing between proto-writing and the morphosyllabic script. The semiotic structure of the Aztec pictorial sign changed from a picture to a writing sign, corresponding to the development of writing. So we can observe the different stages coexisting in the Aztec script.

1. First, there is a visual representation of an object. For example, the picture of a turtle represents any turtle (*Ayotl* in Nahuatl). This picture can also be used for *Ayotlan* — ‘The Place of turtles’. It is merely a pictogram with possible metonym uses.

2. When both interpretations — direct and metonymic/indirect — are generally accepted, the structure of the *signatum* becomes more complex: the Word becomes the *signatum* of the second level. The sign functions as an ideographic writing unit (the interpretations can refer to the whole semantic field).
3. Gradually the Word becomes a *signatum* of the first level, and the object a *signatum* of the second level. The pictorial sign functions as a morphographic writing unit.
4. Finally, the connection of the picture with the object-signatum loses its relevance and the connection with the sound-signatum becomes more important — again the sign has a simple structure. Now it is a readable sign. This is how any pictorial sign commonly develops into a phonographic writing unit.

The Aztec writing combines signs of all four stages, while more developed morphosyllabic systems are founded on the third and the fourth stage signs. Thus, the Aztec script shows the earliest semiotic patterns in the evolution of writing systems.

This development of the Aztec script is represented in Telma Sullivan's classification of 'pictures' in Aztec manuscripts (1983:21–22): 1) pictograms, which directly represent an object in stylized form; 2) ideograms, which render the symbolic meaning of an idea or a thing by representing an object, which loses its own meaning; 3) phonograms, which represent syllables by referring to objects whose names contain these syllables. This variety turns the Aztec manuscript into a riddle for the reader who does not know the meaning of the respective pictorial sign and thus has to determine whether to interpret or to read it.

## 2.6 The textogram as a frame

In principle, all pictorial signs in a textogram can be regarded as emblems, simple or compound, readable (writing) or not. A *textogram* in an Aztec manuscript is a composition representing a narrative or descriptive subject.

The following page of Codex Mendoza (with Spanish glosses), consecrated to Itzcoatl's (Lord of Tenochtitlan) reign, shows his conquests.

In the centre of the page, there is the emblem of War. It is made of two glyphs which correspond literally to the paired set expression "in mitl, in chimalli" ('the arrow, the sword') which is a metaphor of war. Thus, this pictorial emblem is an ideogram, made as a combination of pictograms. (The graphic structure follows the linguistic structure, yet the sword has a glyph of smoke in addition).

The Lord is represented with a pictogram of a sitting man, also in the centre of the page. The symbol of Speech, a speech scroll (ideogram), is going out of his mouth — probably indicating the 1st person speech, suggesting Itzcoatl as the





**Figure 1.** Codex Mendoza. Folio 5 verso (fragment). Conquests of Itzcoatl

author of corresponding oral text; the scroll is directed to the emblem of War, indicating the object of speech (so the whole can be compared to the common monumental inscriptions of ancient eastern lords, telling about their victories: *It is Darayavaush, the king, who is speaking...*). A snake with arrows attached to the back of his head (as if it was a part of his head dress) is a writing emblem of name; it has to be read 'The Snake with arrows' (*itz-tli* 'obsidian arrowhead' + *coatl* 'snake', *-tli/-tl* — suffix of absolute).

Izcoatl's conquests are rendered by emblems of destroyed cities surrounding the central pair. Destroyed cities are represented in stylized images of burning temples (glyphs of fire and smoke coming out of the glyphs of the temple's upper part) with falling tops, in metonymic sense ('temple' stands for 'city'); their names are given in writing emblems disproportional to the size of the temple, so 'the feeling of meaning' indicates that they should be read. The city of *Teocalhuahcan*, which contains the word 'temple' (*teocalli*) in its name, chooses another graphic base for 'city': it is a hill (*tepetl*), usually representing 'settlement' (*altepetl*).

The connection between the emblems denoting the cities' names and those representing the burning cities themselves deserves closer attention. In most cases, both are connected through a cord-like line. This line is a formal graphic element



(like a ligature in musical notation) linking the name of an object to the object itself, which can be called *graphic ligature*. In the case of plants, this linking element takes the shape of a platform, which is a non-formal solution (*figurative ligature*). Furthermore, a coyote is just bound with its tail, an ingeniously rational device fusing both name and object together. Finally, in the case of city of Mixcoac, the sound component is incorporated into the pictorial base — a blue snake is placed in the temple.

These devices are comparable to those involved in the formation of compounds: incorporation (of writing emblem to pictorial base: snake to temple, temple to hill), fusion (coyote, plant, Itzcoatl), and junction (with a cord as a graphic ligature). Thus, complex emblems can be read as compounds: the unreadable emblem (ideogram, graphic base) represents the head of the compound which is modified by the readable emblem (name).

The narrative subject is provided with date indications. The blue border of the page (the left margin) includes a series of calendar glyphs, which show the years of the Itzcoatl's reign; they are complex emblems made of pictogram-names and -numerals.

Thus, the whole composition forms a frame, or (in terms of writing units) a *textogram*, for its content can be related to a text. The structure of the textogram does not prescribe the order of reading it; it represents the semantic, deep level of the text, which should be known from oral tradition.

The textogram corresponds to a situation or to a series of situations, representing each of them as a frame with its components — acting participants and circumstances. The positions of the components are determined by the coordination of the primary, central, and secondary, subordinate ones. For the archaic culture, the cyclic repetition of certain events (birth, marriage, war, death) is primary, and concrete variable factors (names, place names, dates, numbers) are regarded as secondary though necessary circumstances. The subordinate function of writing emblems is expressed in their particular position — at the border, behind the head, apart from the main image, modifying the pictorial emblem.

Boone (1998: 149–96) speaks about the 'visual thinking' of the Nahuatl, comparing their pictorial documents to musical or mathematical notations that could be 'read' without words. So the sound component can be regarded as subordinate.

## 2.7 Writing emblems in early Egypt textograms

The Aztec textogram can be compared with early examples of Egypt ideography — the Narmer Palette and the Scorpion mace head. These examples show the universal emblematic device of name fixation.

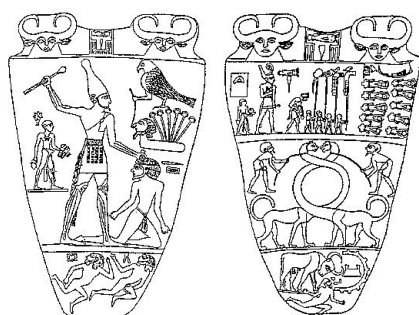


Figure 2. The Narmer Palette



Figure 3. The Scorpion mace head

In both examples, the emblems of names are placed near the head (in front of it or behind it) of a king or of another important person; their position and proportions presuppose their function as readable signs. The name emblem Nar-mer is placed also in the upper row on either side between the cow heads of Goddess Hathor — as a key. There are at least seven name emblems on the both sides of the Narmer Palette and one on the fragment of the Scorpion mace head. Another type of emblem is a numeral compound ('6000 slaves') made of graphic base (with a human head) and numeral (six lotus flowers) on the left side of the Narmer's Palette.

## 2.8 Emblems as name phrases

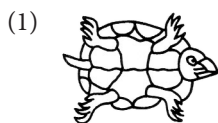
The absence of phonetic spellings of predicate phrases in Aztec codices can be explained from a semiotic perspective (it is not the only explanation). When there is a tradition of pictorial representation of information, words may be regarded as secondary resources, difficult to be extracted and used.

The word becomes actual in the act of giving a name. Thus, personal names, place names, names of tribes, and calendar names are the first stable names — proper names — and the first real stable phrases worthy of notation. Proper names are names with fixed reference to the person. Ancient names have a transparent semantic structure. Such names may contain a single word (*Turtle*, *Fox*, *Bear*, *Cloud*, etc.), which can be rendered by a pictogram. But more commonly there is a differentiated name (a word combination) that creates an individual image (*Turtle Following His Wife*, *Dark Cloud*, etc.). This is a first attempt of sound writing with iconic images, because the *signatum* is a sounding word, not an object. We can

see such writings in Mixtec codices (Smith 1973) and in North-American annual records (G. Mallery, from Gelb 1963:46–48).

The next step of sound writing is represented by more elaborated emblems of names in Aztec manuscripts, where a redundant phonetic indicator or rebus spelling may be evidence of sound writing.

A proper name can be written with a sign-pictogram or with a combination of pictograms as an emblem. We find examples in Codex Mendoza such as the following place names:



AYOTLAN — ‘Where there are many turtles’<sup>1</sup>

Morphemic structure: (Ayo-tl)+ tlan

Ayo- — root of ‘turtle’

-tl — absolutive suffix, eliminated in compounds

-tlan ‘where there is abundance of’ — locative suffix.

Graphic expression: Ayotl ‘turtle’(-tlan is omitted).

This emblem is made of only one pictogram, which is a rare case.



AYOTZINTEPEC — ‘On the hill of the little turtle’ / ‘On the hill of little pumpkins’

Morphemic structure: 1. ((Ayo- + tzin)-tli + Tepe-tl) + c  
or 2. ((Ayoh + tzin)-tli + Tepe-tl) + c

Ayo-tl ‘turtle’

Ayoh-tli ‘gourd, pumpkin’

-tzin- ‘little’ — diminutive suffix

Tepe-tl ‘hill’

-c ‘on’ — locative suffix

-tl/-tli — absolutive suffix, eliminated in compounds.

Graphic structure: Ayotzintli ‘little turtle’ or Ayohtzintli ‘little pumpkin’ + Tepetl ‘hill’ (The locative is rendered by the disposition of the components).

In contrast to the first example, this emblem is made of two pictograms, which is more common. The scribe does not make clear what interpretation should be chosen, though for the 'little turtle' the picture seems schematized.

(3)



AYUTUCHCO — 'On the armadillo' = 'On the turtle-rabbit'

Morphemic structure: (Ayo-tl + Toch-tli) + co  
 Toch-tli 'rabbit'  
 Ayotochtli 'armadillo'  
 co 'on' — locative suffix.

Graphic structure: *Ayotochtli* (rabbit in the armour of a turtle, graphic incorporation) + *Atl* 'water' (as a phonetic complementation, graphic fusion).

Here, the graphic image is analogous to the linguistic structure of compounds, referring not to the real object but rendering the metaphor; the 'turtle'-element is incorporated into the 'rabbit'-base. But the second component ('water') gives a hint for the beginning of reading (it indicates the first sound) and besides makes the structure balanced.

The logical incompatibility of components in emblems of personal names and names of places can indicate the combination of phonetic and ideographic signs (4):

(4)



COATZINCO — 'On the small snake'

Morphemic structure: (Coa-tl + tzin) + co  
 coa-tl 'snake'  
 -tzin 'small' — diminutive suffix.

Graphic structure: *Coatl* 'snake' + *Tzin-tli* — 'rump' (rebus substitution, graphic fusion).

The graphic structure may have no direct correspondence with the components of the compound:

(5)



YACAPITZTLAN — ‘Where there are many pointed things’

Morphemic structure: (*Yacapitz-auah*) + *tlan*  
*Yacapitz-auah* ‘sth pointed’  
*tlan* ‘where there is abundance of’ — locative  
suffix.

Graphic structure: (*Tepetl* ‘hill’ (graphic base) + *Yaca-tl* ‘nose’, incorporated)  
+ *Petzoh-tli* ‘insect’; (*Yaca-tl* + *Petz(oh-tli)* — rebus spelling for *Yacapitz-*).

Again, the balanced structure of the two-component emblem is evident and displays a lot of wit: A hill incorporates a nose, producing a nosed hill. A badger climbs up the hill; the nosed hill and the badger form a graphic fusion (the integrated image of two components). Yet the hill is an unreadable sign used as a graphic base with a common locative meaning.

(6)



COYUACAN, or COYOHUAHCAN — ‘Place of the (lean) coyotes’ (‘Place of the owners of the coyotes’, “owners” just indicates the inhabitants of a settlement).

Morphemic structure: (*Coy(o-tl)* + *huah*) + *can*:

*Coyo-tl* ‘coyote’

*huah* ‘owner’ — possessive suffix

*can* ‘pertaining to a place’ — locative suffix.

Graphic structure: *Coyotl* ‘coyote’ + *Coyoctli* ‘hole’ (graphic incorporation)  
(*Coyo-c-tli* ‘hole’ or *coyo-c-tic* ‘hole-ridden’ as phonetic complementation.)

The coyote with his tongue hanging out may render the syncretic image ‘hungry coyote’, which may in a pun correspond to the rebus spelling: (*Coy-otl* + *hua-cqui*) + *can*: with *huacqui* ‘lean, hungry’.

The use of one glyph for two morphemes (as 2, 3) is even more creative in (7):

(7)



MIXCOAC — ‘On the cloud snake’

Morphemic structure: (Mix-tli + coa-tl) + c,

Mix-tli ‘cloud’

Coa-tl ‘snake’

Graphic structure: *Coatl* ‘blue curled snake’ (syncretic image, incorporated into a burning house — the emblem of the Destroyed city — as a graphic base).

Here *mix-tli* (‘cloud’) is drawn as a blue snake with curls forming the upper line of the snake’s skin. The blue colour and the curling line represent a cloud, so the whole is rendered syncretically.

(8)



AHUACATLAN — ‘Where there are many avocado trees’

Morphemic structure: Ahuaca-tl + tlan

Ahuaca-tl ‘avocado’

-tlan ‘where there is abundance of’ — locative suffix.

Graphic structure: *Ahuacatl* ‘avocado’ with incorporated *Tlantli* ‘teeth’ (rebus substitution).

(9)



QUAGUACAN, or CUAHUACAN — ‘Place of eagles’ (‘Place of owners of eagles’)

Morphemic structure: (Cua(uh-tli) + huah) + can

Cuah-tli 'eagle'

huah 'owner' — possessive suffix

can 'place of' — locative suffix

Graphic structure: 1. *Tepetl* 'hill' (as a locative) incorporating *Cuaitl* 'head' of *Cuauhtli* 'eagle' (rebus spelling) + *Cuauhi-tl* 'tree' (as phonetic complementation; graphic fusion)

2. *Cuauhtli* 'eagle' + *Cuauhitl* 'tree' (as phonetic complementation; graphic fusion); the whole is joined to the Destroyed city as the graphic base with a cord — graphic ligature.

In two allographs the use of a tree as a redundant phonetic component and the different graphic base can be seen: the hill, corresponding to the notion of settlement (for locative suffix) and incorporating a head of an eagle, and a destroyed city with a cord. In the first case, the head may appear to be a redundant phonetic component, but I prefer to regard it as a witty graphic reduction.

(10)



AZCAPOZALCO — 'On/in the anthill'

Morphemic structure: (azca-tl + pozal-li) + co

azca-tl 'ant'

pozal-li 'heap'

azcapozalli 'ant hill', compound, -li — absolute suffix

co 'on' — locative suffix.

Graphic structure: *Azcatl* 'ant' + *Pozalli* 'heap of sand and corn'. Locative *co* 'on' may be implicated from the disposition of the components: the ant is on the surface (his back in the ground) and in the middle of a cloud of corn and sand (the anthill).

The corn is an unreadable component. It works as a semantic complementation and as an allusion to a myth: In the shape of an ant, Itzcoatl brought his people grains of maize. The whole emblem of the name is in juxtaposition with its graphic base, a destroyed building. Here it can be seen that a name-emblem can be more than just a combination of readable signs.



(11)



COYUCAC (tribe name)

Morphemic structure: *Coyo-tl + cac-tli**Coyotl* 'coyote'*cactli* 'sandal'Graphic structure: *Coyotl* 'coyote' (head) + *cactli* 'sandal'.

This example demonstrates the conjunction of a linguistic emblem and a pictorial emblem. The pictorial emblem shows a woman as a member of the tribe. The emblem representing the tribe name is joined to the woman's head with a cord. The components of the name-emblem touch one another only in one point. This juxtaposition does not represent a logical connection but demands a reading.

Thus, linguistic emblems do not reveal the homomorphemic correspondence to the morphemic structure of a name. Locative morphemes can be omitted whereas redundant images can be added to make it easier to read or to grasp the sense. Yet devices parallel to those in compounds (graphic incorporation, fusion, conjunction and juxtaposition) can be used. Further ingenious strategies (rebus spelling, rebus substitution, redundant phonetic components) aid the reading process; these strategies are proper to morphosyllabic writing. The common graphic structure of linguistic emblems concludes two components; the order of them is not linear, and they form a composition and join to a pictorial emblem as a graphic base. All the writing emblems are of the same size, logically incomparable with the size of the graphic base (the ant as big as the coyote, eagle, or tree, and almost as big as the house). Yet the graphic base is a prominent component of the composition, so it cannot be regarded as a determinator. On the contrary, the name-emblem has a function of a sound determinator to the main sign.

### 3. Factors constraining the development of the Aztec script

The present analysis of Aztec script has shown the Aztec's elaborate means of encoding name phrases. Nevertheless, the development of the Aztec's script was faced with a number of constraints; three of them should be mentioned:

1. Culture: The Aztecs regarded their script as a quite natural communicative strategy, based upon 'visual thinking'. To them, not every text was worthy of writing; they choose the oral transmission for poetry, for example.
2. Sociolinguistics: The Spanish influence was neither in the form of writing nor in the tendency of phonetization but in the cancellation of the indigenous writing tradition (though it was prolonged a while for the needs of the same Spanish governors). This situation may be compared with that of Egypt in the emergence of Hellenism, when Coptic writing arose: "...in Egypt and elsewhere, it is a script, rather than the language, that becomes a symbol of 'heathendom', of the old religious order which a new revealed religion aims to overcome..." (Lopriene 1995: 237).
3. Language structure: The polysynthesisism of the structure of the Nahuatl language allows long series of syllables within an incorporative complex (often 8 to 9, but up to 32). Whereas a proper word for Nahuatl can be a name with a stable morphemic structure, a predicate can be a variable incorporative combination. Here lies the border between language and speech. An emblem with its restricted number of positions does not have the technical means to guard the strict order in such a long row; it has to be unfolded into a chain. The Aztec writing could fix language units, but not speech.

The Maya hieroglyphic script, used for language with elements of polysynthesisism, seems to have resolved this problem. Before the pictorial sign became phonetic, the number of components in a hieroglyphic block was restricted and the proper order of writing/reading was determined.

#### 4. Conclusion: Is the emblematic principle obsolete?

The emblematic principle, revealed in the Aztec script, may seem a particularity of an early stage of writing. Yet it seems rather effective and rests alive in modern writing practices. Putting aside Chinese writing, we can observe it in alphabetic writing systems:

- It coexists with the linearity principle, creating monograms, ligatures, and abbreviations:

£ & @ Æ

- It corresponds to the creative, combinatory capacity, due to which we have such emblems as "?" and "!", created in Latin writing by the composition of components (o under Q, o under I):

Quaestio > Qo > ?

Io > !

- Writing numerals reveals the coexistence of two forms of representation: linear (1 : 3) and emblematic ( $\frac{1}{3}$ ). Other examples can be found in mathematical, chemical and musical notations (in the latter, for example, a chord is a harmonic emblem and a melody progresses note by note in linear order).

In conclusion, it has to be remarked that the emblematic principle can unite signs of different levels or different status in the historical writing systems. This does not mean that the emblematic principle is an obsolete survival. An emblem of any kind is a device of visual representation of hierarchic or compound information in compact form; it is a way to break the importunate chain of linear order.



## Note

1. The present translations and morphemic analyses follow Berdan (1997a, 1997b), with grammatical specifications according to Sullivan (1983) and spelling according to Rémi Siméon, le *Dictionnaire de la langue nahuatl ou mexicaine*. <http://sites.estvideo.net/malinal/nahuatl.page.html>. The illustrations are taken from these editions and the website mentioned.

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