

# **The Invention of Writing, Old Babylonian Schools and the Semiology of the Diviners**

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Since Jack Goody's work, we know that the creation of a graphic field generates new cognitive possibilities and social action. One suspects it allows of intellectual operations such as divination. Given the fact that divination provided the motive of the invention of writing, some scholars imagine that divination is, in Mesopotamia and in China, the true source of this invention.

For Anne-Marie Christin, quoting the sinologist Leon Vandermeersch or the assyriologist Jean-Marie Durand, divination would have constituted « the ultimate shift of the metamorphosis of an image into a written sign ». The constellated sky making office of screen, the stars would be the first images which association would be meaningful, the space inbetween them generating the syntax. Within the frame of divination, the recourse to culturally enhanced objects encompassing a message sent by the gods to humanity would be the appropriate tool to introduce two basic notions, that of lecture (the social function of the diviner is to decipher the signs), and that of a system of signs which transforms enigmatic images, the celestial constellations, into an intelligible text, in other words, into writing.

The process is attractive. In such a hypothesis, human writing would have been sign of sign before being sign of word or of syllable. But one must figure out that something is missing in such an explanation : there is a lack of linguistic dimension. And who has ever seen an image transforming itself into a written sign ? No sign has an intrinsic existence and, as Umberto Eco has underlined it, for such a transformation, one needs the intention of the scriptor.

Inside the constant dialogue which the gods kept up with humanity, the mesopotamian gods drew signs, the omens, which human beings were to untangle in order to extract from them an information concerning their own

lives. In Mesopotamia, omens are signs offered by the gods, signs which they draw on several medias and the diviner, who is the mediator, is the one who is qualified for their interpretation. Omens work as indicators of what may happen without any obligation ; they are not the cause of what will happen, and the oracles are not their consequences ; omen and oracle are correlated the one to the other by a principle of regularity. The physics of Aristotle is not in current use on the banks of the Euphrates.

It is often told that omens might be fortuitous or endowed with a great regularity, spontaneous or prompted, immediately perceptible or hidden. But one question arises that is shelved by the preceding typology and which is central to the present purpose : are the omens immediately recognizable or does one need, for their identification, the eye of an expert ? I will not reopen today the old debate which brought into conflict the adherents to Aristotle and those to Galienus. We are aware, today, since ibn al-Haytham's work, that perception requires a voluntary act of recognition. The Akkadians used the verbe *barû* to express this effort, « to observe, to figure out, to establish by observation, to inspect ». The man who is in charge of it is the diviner, the *bârû*.

He is a literate man who studied at school, a reality which is of considerable value. One remembers the lesson offered by Pierre Bourdieu : the social conditions of the formation of a specialist are of considerable value : they determine his behaviour, the way he manages and the criteria of his intellectual choices.

In the field of extispicy, omens are visual signs. They are the result of a figurative way of thinking. But the true question which arises is : are they plastic images or written signs ?

The body of the animal victim is the receptacle of three types of images : the ones which originate in nature, the biological body ; the ones created by the gods, the anatomical or pathological signs to which they give a specific feature and a complement of signification ; the ones proposed by the diviners, the oracles homologating the omens to specific events in social life. In short, one assists to a double operation of transformation, from a biological body to a medium which gives to see a new image able to hand over messages which are, in turn, to be transformed again in order to make them understandable at the reception. The first transformation's purpose is to select and make analysible in discrete units the singularities which work as stimuli for the omens and of which nature is a huge pool. The purpose of the second transformation is to socialise the omens, which ultimately represent something different than themselves.

To say the same thing in an other way, one attends a rhetorical process which begins with a real image, a biological body, an image to which, through a movement of abstraction based on the process of identification, one gives a content which is different. One gets a second image, an omen, which, through a new procedure of semantisation, brings about a third image, which is similar to the preceding ones, an oracle.

In other terms, omens are the product of the activity of the intellect and they are supposed to correspond to some criteria of intelligibility. They are objects of thinking. They give knowledge a materialised shape and offer themselves as easy to handle forms for the mind.

Mesopotamians themselves identify omens as written signs, the signs of the writing system of the gods. Following a 17th century document, it was the goddess Nisaba who wrote, *shat.âru*, the omens. In later sources, Shamash himself took the task from her. In first millennium documents, the designation *shit.it shamê*, « celestial writing », for the disposition of the constellations revealed a thought which conceived the whole universe as written signs.

This is the official speech. But even if some omens look like written signs, the reality seems more complex. There exists an important gap between omen and written sign, the first escaping the general characters of the second. Four criteria help to make the difference : the shape, the texture, the colour and the position on the medium. The signification of a written sign, once defined in its shape, doesn't change if its dimensions varies, or if it is written in one or another colour, if it appears in one or another place of the medium. On the contrary, in the case of an omen, all these parameters contribute to change its signification.

One is confronted here with a difficulty. The question consists in the rediscovery of the semiology of the diviners. In the practice, the verb which says the writing of an omen is not *shat.âru* but *es.êru*. Both of these verbs have the same meaning, « to draw strokes », but they are not used in the same way : the first one is used only for the act of writing, the second for the more general act of drawing. In other words, they are concerned with two different ways of drawing strokes which illustrate two different thought processes, to write and to draw, to produce written signs or plastic images.

Let us now turn our attention to a 21st testimony, the Cylinder A of Gudea. According to it, the Goddess Nisaba, the goddess of writing par excellence, while holding a stylus, *gi.dub.ba*, in her hand, consults, *ad.gi<sub>4</sub>*, a tablet covered with stars, *dub.mul*, which lays on her knees. One understands that she is examining, with the help of her stylus, a configuration of stars which is figured on a medium, a tablet, which is, in the reality, the sky itself. This mode of communication requires the intervention of a specialised god, Nindub, « the lord of the tablet », who reproduces the message identically, *sè.sè(g)*, which renders the akkadian SH form of *mashâlu*, « to make equal », in order to make the message understandable to human beings. The content of the message is qualified as *gish.hur*, which means « a picture », « a drawing », « a plastic image », « a plan » : it makes reference to the plan that is shown on the knees of Gudea on a statue of him in the Louvre Museum, a plan which is obviously a drawing. Even if Nisaba is the goddess of writing, what strikes the modern reader of the cylinder is that its author escapes to use the vocabulary of writing ; even the stylus in the hands of Nisaba is not used to write, but to underline the

selected stars ; and the verb ad.gi4 has never had in sumerian the meaning « to write » !

At the same time where Nisaba offers the prefiguration of the plan of a temple to Gudea, and during the 20th and 19th centuries, the omens were schematically drawn on clay models and underlined by deictic indicators or sometimes designated by name.

Between the 21st century and the 17th century, the understanding of the nature of the omen has changed. In the 17th century, an omen is no more a plastic image, but a written sign. In the same time, the presence of an intermediary divinity was no more considered as essential and the position of the diviner, in the society, because of his ability to converse with the gods, was strengthened.

During the 18th century, and in the same way, diviners gave up the idea of preserving the visceras in a liqueur in the purpose of the verification of a previous interpretation, a procedure still documented in Mari. Now, it is from the 18th century on that the diviners began to write their treatises where a verbal text describes, taking its place, the picture which adorned the clay models, or the visceras themselves macerating in a liqueur. For such a purpose, they created a new mode of expression, instituting a stable nomenclature, a lexicon of nouns, adjectifs and verbs adequate for the description of the omens. In a few words, they built the omens passing from pictures to description and from drawing to writing.

In doing so, they isolated individual omens and, for each of them, they observed the presence or the absence, the shape, the appearance, the number, the position, the colour, the situation, the dimension, their relations with other omens, etc. On each itemized omen they considered the presence of secondary or fortuitous signs.

Even if the diviners no longer drew the images of the omens in the treatises, they knew them through the practice and they were able to picture them from their nouns and from the descriptions they offered of them. A careful look at the documentation will allow us to identify some of the procedures which the diviners used in order to give them an accessible form for their comprehension. They began to identify simple signs, a simple stroke, for example, sometimes a more sophisticated geometrical shape, some intermingled strokes. Taking these primary signs as a point of departure, they built up derived signs, varying from their respective dimensions, their combinations with other signs, their orientations, their unachievement, the adjunction of secondary elements. Each modification gives the omen a different meaning. The main procedures were :

#### 1) orientation :

The disposition of a sign on the medium might be different : *ká é.gal shu-ú-shu-ur*, « the door of the palace is straight » ; *ká é.gal pa-ar-ki-ish e-s.e-er*,

« the door of the palace is drawn crosswise » ; na ka-lu-shu-ma bal-ut, « the presence is completely overturned ».

A sign might have a variable slant : [i-na igi.bar gish.tukul sha-ki-in]-ma ni-ra-am i-t.[ù-ul], « a weapon is situated on the view and points at the yoke » ; [i-n]a igi.bar gish.tukul sha-<ki-in>-ma mar-tam i-[t.ù-ul], « a wepon is situated on the view and points at the gall bladder ».

A sign might be reproduced in mirror image. This is the case of the weapon, a chevron patterned image. A textbook from the seleucid era says that the weapon of the right is oriented to the right and the weapon of the left is oriented to the left. Nevertheless, an old babylonian tablet shows that a weapon of the right might be oriented to the left : gish.tukul i-mi-tim i-na re-esh mar-tim sha-k[i-im-ma] mar-tam i-mi-id-ma shu-me-lam i-na-at-t.a-[al], « the weapon of the right is situated on the head of the gall bladder and points at the left side ».

## 2) unachievement :

An omen might be incomplete, it means atrophied or partially erased : á.gùb mur ha-li-iq, « the left side of the lung is missing » ; na ka-bi-ìs gír kar na gír kab-su, « the presence is obliterated, the path is obliterated, the presence and the path are obliterated » ; kal silim kab-su kal ka-bi-ìs, « strong and well-being are obliterated, the dtrong is obliterated » ; na ka-bi-ìs-ma gír gar, « the presence is oblietrated but the path is present » ; shu-me-el shu.si re-esh-sa e-ki-im, « the left side of the finger, its extremity is atrophied » ; etc.

## 3) addition of secondary marks :

3a) one single mark, like a stroke or a hole : i-shi-is-sà ip-t.u-ur, « its base (of the view) has one cleft » ; ki.gub gam-ish, « the presence is perforated » ;

3b) more than one mark : s.í-ib-tum a-na 20 pa-at.-ra-at, « the increase has twenty clefts ».

## 4) combinations of different marks :

4a) by doubling : ká é.gal 2, « there are two gates of the palace » ;

4b) doubling might be realised through different procedures : igi.bar min-ma it-ta-at.-lu, « there are two views and they face each other » ; igi.bar min-ma ki-ma pi-lu-ur-tim it-gu-ru, « there are two views and they are in a crossed position like a cross » ; ká é.gal min-ma ri-it-ku-bu-ú, « there are two gates of the palace and they overlap each other ».

The two marks might fit into each other : pa-da-nu i-na li-bi pa-da-ni, « there is a path in the path » ; kal ush-te-esh-ni, « the strong is unfolded ».

4c) doubled marks might show addition of secondary marks : igi.bar min-ma shu-lu-sha-a pu-ut.-t.u-ru, « there are two views and each has three splits ».

A third and different mark might be added : min ma-ra-tum ma-as.-ra-ah-shi-na ish-te-en, « there are two gall bladders but one base » ; min ká é.gal esh

shu.si il<sub>5</sub>-wi-ma re-sa i-na bi-ri-shu-nu ish-ta-ka-an, « there are two gates of the palace, the gall bladder surrounds the finger and its extremity is situated between them ».

4d) tripling (or more) of the mark : ká é.gal 3, « there are three gates of the palace » ; na 3-ma a-he-e shub.mesh, « there are three presences and they are arranged separately » ; 4 na-ap-la-sà-tim ish-te-ni-ish iz-za-az-za, « four views are placed together ».

4<sup>e</sup>) association and overlapping of two or more marks, without or with additional marks : i-na zag ki.gub qú-ú i-t.e-bé-e-ma i-na gír ra-ki-ba, « a red thread dives to the right side of the presence and sits on the path » ; ki.gub i-ri-ik-ma gír ù na-as.-ra-ap-tam ip-t.ú-ur, « the presence is long and it cuts the path and the dying vat ».

5) Fortuitous marks are generally associated with other marks, symptoms of pathology being grafted on anatomical marks : i-na re-esh na-ap-la-às-tim e-ri-ish-tum, « on the head of the view there is a mark of desire » ; i-na shu-me-el ta-ka-al-tim pi-it.-rum ù shi-lu min, « on the left side of the poach there are a perforation and two holes » ; ina sag na bùr ine shà bùr shub-dì, « on the head of the presence there is a hole inside of which there is a hole ».

The quoted examples are sufficient to reach the main conclusion : to identify the procedures which the diviners used to split up the omens into their component parts in order to make them understandable. These procedures are exactly the same ones that those which the inventors of writing used at the end of the fourth millennium when they created their grammar of signs. They imagined a body of primary signs which they manipulated in order to build up derived signs. They played with the layout of the signs on the medium : when they were drawn in the mirror, or bent to the right or to the left, or left unachieved. They adorned them with hatching, with tangled strokes or dots. They combined some marks with other by doubling or tripling them, sometimes in a crossed position, or overlapping each other. They too combined different signs, with or without additional hatching.

There is something which is more important : these procedures were those which were taught at school during the old Babylonian period, I mean the period during which the diviners began to write their treatises ! And these procedures were designated by their names : tenû, « bent » ; zidatenû, « bent to the right » ; kabatenû, « bent to the left » ; gunû, « hatching » ; shessig, « tangled strokes » ; minabi, « doubling » ; gilimmû, « crossed position » ; eshshaku, « tripling » ; nutilû, « unachieved » ; igigubbû, « head to tail » ; etc.

When doing the identification of omens with written signs, the diviners reproduced the procedures they learnt at school. They did nothing else than grammar and morphology.

They didn't hesitate, sometimes, to compare an omen to a written cuneiform sign. In giving them names and in offering the chosen descriptions of them, they built up a repertoire which characters were reproducible and adhered to the rules of a system. Omens like written signs were thought up as a group ; they revealed obvious genetic connections among themselves ; they were organised in a coherent unit able to be described and they formed an articulated whole ; they developed multiple combinations that enabled their associations ; they each had their own form, which characterised them, but at the same time they resembled each other and formed groups ; their recurrent use allowed the creation of new configurations that, in turn, became stable, memorised and integrated in the system ; each one bore in its structure, in the way it was presented to thought, and in its method of connection with other omens, the mark of its belonging to a same domain.

Nevertheless, one difficulty arises if we introduce our own criteria of classification of visual signs ; then, the omens seem to escape to general characters of written signs. Some reasons arise which lead us to classify the omens in the category of plastic images. One thinks of the dimension, the form, the relation to the medium, the texture and the colour. Once the shape of the signs is determined, were they drawing hesitant or perfect, where ever they are located on the medium, were they embroidered on a textile or drawn with ink on paper or engraved on wood, were they blue, red or black, the graphic signs conserve always the same value. This true, as we know, for cuneiform, but it is not true, as we know, in ancient Egypt and in Central American Maya's writing. Now, dimension, form, texture and colour are elements qualified to change the value of an omen in Mesopotamia.

Moreover, in the everyday speech, the verb to say « to draw an omen » is not *shat.âru*, « to write », but *es.êru*, « to draw ». Even in the treaties, it is this second verb which is in use, as the noun *us.urtu*. For example : *ki.gub sag.ush gar-ma man-û i-na sag ki.gub e-s.ir*, « the normal presence is present, and a second one is drawn on the extremity of the presence » ; *i-na shu-me-el ta-ka-al-tim ú-s.ú-úr-tum*, « to the left of the pouch, there is a drawing ».

Therefore, let us consider the dimension, the form, the relation to the medium, the texture and the colour :

1) dimension : it is variable ; the normal size of the presence is three fingers, but it can be long, *igi.bar gid.da/ki.gub i-ri-ik*, « the view/presence is long », or short, *igi.bar du-un-nu-un-ma ik-ta-ri*, « the view is very strong but short ».

2) form : omens, like written signs, are reproducible, and each occurrence of them may present formal variations. If the written sign has always the same value, the omen on the contrary, has in each case an other value.

3) the relation to the medium : a written sign, where ever it is written, has allways the same value ; this is not the case for an omen, which has often an assigned place, mashkanum, a « site », which contributes to its identification. But it has the ability to leave its place and its oracular value changes depending on his location.

The diviners too imagine the possibility of the absence of an omen.

4) texture : sources often make allusions to the texture of the medium, which might be intact, sound or spoiled, damaged. Each time, the signification of the omen varies.

5) colour : when the colour of the omen changes, its signification changes, to the contrary of what happens with a written sign.

To conclude, a difference exists between the content of the discourse of the diviners and their practice : the omens are recalcitrant to be unanimously classified into the sole heading of writing.

But we learn from semiotics that any attempt of a typology of visual signs is vain. In one word, there is no ultimate criterium which allows to establish a true separation between written sign and plastic sign. It is a question of motivations, of intentionality (in Husserl's sense) of the producer.

To tell the truth, and going back to mesopotamian sources, we discover that es.êru itself means not only « to draw », but too « to write ». The goddess Lamashtu draws strokes on the surface of a wall to note down calendric informations. The scarifications done by a scribe on the neck of a slave are called mihis.tu, « stroke », a term which designates the basic element of cuneiform writing. Es.êru and shat.âru are in the center of two semantic fields which partially overlap, the one not being exclusive of the other. The noun us.urtu/gish.hur designates an entanglement of strokes which constitute a visual sign, were it a plastic or a graphic one. Let us now come back to our five criteria excluding graphic signs :

1) dimensions : the inventors of writing, at the end of the 4th millennium, played with the dimensions of some signs, the cercle and the stroke, in order to create new graphic signs.

2) form : we have noticed, for example, that the same omen called door of the palace might have several aspects. It is a composite figure with a stable frame into which variable motifs might be inserted. This corresponds to one of the most productive procedures used by the inventors of writing when they associated two overlapping signs, one being a matrix, the second a semantic complement.



Concerning the comparison of omens with objects, animals and artefacts, they include comparisons with written signs and the first ones are treated in the same way as the last ones, as written signs.

3) relation with the medium : in the case of the liver, this organ is not designated, in the language of the diviners, by the common term kabattu, « liver », but by the term amûtu which meaning is first « omen ». Following the example of an uninscribed tablet, the liver without any omen is not the degree zero of writing but is already a sign. Considering the shifting of an omen on the surface of the medium, the diviner extended the principle according to which a same graphic sign, being bent into one or another direction, acquired a new value.

4) texture : it is, as its name, shîru, shows, an omen by itself. It appears that diviners consider the presence of blood, of fat, etc. in the same way as they considered hatching on a written sign, or, at least, as two overlapping signs ; mar-tum li-ib-ba-sha li-pi-a-am ma-li, « the inside of the gall bladder is full of fat » can be analysed following the first or the second explanation.

5) colours : the diviners treated colour as they considered hatching, as a simple addition which was enough to create a new sign and produce a new value. Let me quote a simple example, a couple of omens :

- there is no view and instead there is a cyst ;

next line :

- there is no view and instead there is a cyst and it is dark.

To conclude. Omens are built up objects, the result of mental operations. From the 18th century on, they form to the eyes of the diviners graphic signs, their modes of identification, of construction and of reading being the same than those in use in the building up of written characters, procedures which were taught at school at that time. But the diviners don't satisfy themselves in the application of learned rules, they make the most of their potentiality and generalise their application to a broader register.

This is not without consequences for the definition one would offer of writing in Mesopotamia, a definition which can't be restricted to the study of the sole cuneiform system itself. This dimension has its place in a comparative approach of the question of writing.