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## Why writing is not (only) transcribing? Writing codes in contact: steps towards multigraphic literacy practices

### **Riassunto:**

Scopo di questo articolo è riconsiderare, passandole in rassegna, le risposte date dagli studi semiolinguistici e antropologici dell'ultimo secolo alla domanda (apparentemente scontata o banale): “cos'è la scrittura?”. Gli approcci che verranno analizzati criticamente sono tutti caratterizzati da una visione “ideologica” di cosa significhi scrivere, per lo più condizionata da criteri e pratiche riconducibili all'Occidente industrializzato. Cercherò tuttavia di dimostrare come le diverse posizioni finiscano in definitiva per portare alla luce alcune caratteristiche semiotiche fondamentali che, a mio avviso, sono le sole in grado di spiegare la natura delle concrete pratiche scritte, nel descrivere le quali assistiamo (in Occidente come altrove) a ineludibili fenomeni di mescolamento e contatto fra norme e canoni visivo-grafici di solito considerati assolutamente distinti gli uni dagli altri.

Nell'ultima parte del testo sosterrò l'idea che promuovere usi più dinamici e ibridi di scrittura e grafismo nelle scuole e al di fuori di esse significa accettare gli inevitabili fenomeni di interazione fra singoli sistemi notazionali e altri tipi di simboli grafici: è necessario, cioè, ammettere che a livello dell'espressione grafica diviene praticamente impossibile escludere del tutto o in parte dall'analisi l'occorrenza di unità visive non codificate linguisticamente ma, spesso, in possesso di caratteri discreti e natura distintiva. La scrittura insomma ha sempre beneficiato dalla “contiguità mediale” e delle possibilità sincretiche offerte dalla giustapposizione con qualunque altra forma di diagramma e immagine (o disegno); del resto l'antropologa Ruth Finnegan ha giustamente fatto notare come nella scrittura siano sempre presenti molteplici dimensioni visive, a dispetto del fatto che alcune indiscriminate pratiche di *melting pot* grafico contemporaneo rendano spesso poco attraente o praticabile un approccio genuinamente antropologico e interculturale ai diversi processi di alfabetizzazione.

The basic aim of this paper is to show that, from the works of linguists and others social scientists, there emerge at least three different answers to the (apparently) innocent question “what is writing?”<sup>1</sup>.

I argue that in all cases we are confronted with a partial and “ideological” definition, made up to serve specific goals and fulfil particular requirements; nevertheless, every definition singles out a main feature which could (and in many cases should) be relevant in formulating a comprehensive working definition of writing. However, I will demonstrate that those very features meet three basic semiotic thesis, which are indeed the basis for any viable assessment of *mixed* textual products in visual and graphic domains – since practices of situated interference and contact are nowadays the real “non-normative norm” in globalized cultures and societies.

Finally, I will hold the idea that more dynamic and hybrid uses of literacies in and out of school should take into account the coherent interaction of scripts with other graphic symbols: we cannot avoid to admit that in the graphic plane is virtually impossible to exclude not linguistically coded (but often distinctive and discrete) visual units from analysis, since writing has always benefited from its “medial contiguity” with any form of diagram and picture – and Ruth Finnegan<sup>2</sup> has rightly observed that there are always multiple visual dimensions in writing, even though indiscriminate practices of graphic melting pot are threatening any viable, anthropologically-oriented intercultural approach to literacies.

### *Three definitions of writing: from visible speech to communicative practice*

The first definition of writing I will discuss comes from the heritage of a long (Western) tradition starting with Aristotle and culminating in twentieth century structural linguistic views of language and communication. The main points in this line of thought can be summarized in two famous dicta:

- (1) writing is not a system of its own, but a mere substitute for speech;

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<sup>1</sup> Incidentally, this is a standard formula worth using either as an “openly posed question” or as an “implicit question” to be answered first in comprehensive accounts on the nature and history of writing (e.g. IGNACE J. GELB, *A study of writing*, Chicago, University of Chicago Press, 1963<sup>2</sup>; GIORGIO RAIMONDO CARDONA, *Antropologia della scrittura*, Torino, Loescher, 1981; ID., *Storia universale della scrittura*, Milano, Mondadori, 1986; GEOFFREY SAMPSON, *Writing systems. A linguistic introduction*, London, Hutchinson, 1985; JOHN DEFRANCIS, *Visible speech. The diverse oneness of writing systems*, Honolulu, University of Hawaii Press, 1989). Needless to say, my own account here is partly inscribed in this long tradition; however, I will try to take a relativistic stance towards each of past definitions, in order to propose a working definition complex enough to cover all the anthropologically relevant phenomena related to the use of graphic systems. To my knowledge, the best definition based on anthropological basis is provided by Cardona (in his seminal work in Italian never translated into English): «Writing is... the *use* of a system of graphic signs. [...] A system of graphic signs is ... every set (definite and countable) of signs in which graphic elements are matched with discrete meanings, linguistically expressible by the community» (Cardona, *Antropologia della scrittura*, cit., pp. 24, 27, my translation); along the same “relativistic” vein, it is useful to quote Gaur’s statement (ALBERTINE GAUR, *A history of writing*, New York, Cross River Press, 1992<sup>2</sup>, p. 14) – «if writing is information storage, then all writing is of equal value» – and Sampson definition (*Writing systems*, cit., p. 26) – according to which ‘write’ may be defined «to communicate relatively specific ideas by means of permanent, visible marks» – although both their treatments of the subject are quite traditional. It is not surprising, however, that many Mesoamerican specialists have readily argued for a broader and more encompassing definition of this kind (cf. ELIZABETH HILL BOONE, *Stories in red and black. Pictorial histories of Aztecs and Mixtecs*, Austin, University of Texas press, 2000, pp. 29-30). Between the encyclopaedic surveys of world writing systems, which introduce the topic with one or more theoretical chapters, we mention FLORIAN COULMAS, *The writing systems of the world*, Oxford, Blackwell, 1989 and ID., *The Blackwell encyclopaedia of writing systems*, Oxford, Blackwell, 1996; PETER T. DANIELS, WILLIAM BRIGHT (eds.), *The world’s writing systems*, Oxford, Oxford University Press, 1996.

<sup>2</sup> RUTH FINNEGAN, *Communicating. The multiple modes of human interconnection*, London-New York, Routledge, 2002.

(2) writing, then, represents speech: it is *visible speech*.

In order to better understand the «curious oxymoron» which underlies this so-called «phonoptic» or «surrogational» perspective<sup>3</sup>, one should remember another couple of statements, ideologically interconnected to these and framing their evolutionary and ideological underpinnings:

(3) *evolutionary stance*: «at the basis of all writing stands the picture»<sup>4</sup>, and «all inventions of full writing originated from pictographs»<sup>5</sup>, but pictures cannot implement *full* or *real* writing unless they directly “represent” or, rather, *transcribe* speech;

(4) *alphabetocentric stance*: the more accurately a writing system “represents” speech (i.e. the more strictly homomorphous is the transcriptional ratio, the more this system is high-ranked in a functional-evolutive sequence; hence, the alphabet is at the top of the sequence.

Scholars often omit overtly presenting (3) and (4), partly because both arguments could be dismissed as inaccurate and inconsequential on historical and ethnographic grounds<sup>6</sup>. As far as points (1) and (2) are concerned, on the contrary, during the past century there was a large consensus among linguists, paleographers and archaeologists. The problem with those statements, however, is that it is not at all clear (i) what the alleged “representative” relationship must (or should) be in order to serve as a proper *transcription* of orality, and (ii) in which sense (and at which level) a writing system which is *mapped onto* a given linguistic system entails any specific “parallelism” about the *structures* of the two systems.

In order to provide a reasonable answer to both questions, it is worth remembering the main characteristics of a *linguistic sign* which, according to “old style” saussurean structuralist accounts<sup>7</sup>, must be maintained in any system of written signs if it is to represent (or transcribe) speech at all: (a) the sign is arbitrary, i.e. the link between expression and content must be somehow given in advance (encoded), fixed by a rule and unmotivated (this seriously undermines the role of pictographs and other iconic visual displays as candidates for “real” writing); (b) the signifier, inasmuch as it is of auditory nature, is *a line*. When applied to writing, however, the latter principle is easily refutable and we will show that it is false (indeed it is also questionable for speech, provided one assumes a pragmatic and discourse-oriented framework towards orality). Not only are scripts with clear iconic and plastic features such as Mayan glyphs arranged in a bi-dimensional way (the “cartouche”) as in figure 1, but in an alphabetical system such as Hindi the so-called ligatures also often violate the “linear” arrangement of spoken units in order to fulfill graphic patterns of tracing signs, as we can see in this single word written in Devanagari, छनिदति *ch'indanti* ‘they.cut’, where the actual sequence of graphic elements is *ch*-[lig.]-*i*-[lig.]-*n*-[lig.]-*d*-[Ø]-*n*-[lig.]-*i*-[lig.]-*t*<sup>8</sup> – since the final vocal ि [i] occupies a slot left to the consonant it phonetically follows when read aloud (cf. fig. 2).

<sup>3</sup> ROY HARRIS, *Rethinking writing*, London, Athlone Press, 2000.

<sup>4</sup> GELB, *The study of writing*, cit., p. 27.

<sup>5</sup> DEFRANCIS, *Visible speech*, cit., p. 50.

<sup>6</sup> This is not the case with Gelb, an advocate of the iconic-evolutionary perspective together with Diringer’s “classical” accounts (DAVID DIRINGER, *The alphabet. A key to the history of mankind*, London, Hutchinson, 1949<sup>2</sup>; ID., *Writing*, New York, Praeger, 1962) and with DEFRANCIS (*Visible speech*, cit.), who, despite his commitment to Chinese and Southern Asiatic studies, is both supportive of the “pictorial origins” thesis and of a phonoptic and alphabetical stance.

<sup>7</sup> FERDINAND DE SAUSSURE, *Cours de linguistique générale*, Paris, Payot, 1922<sup>2</sup>.

<sup>8</sup> In this transcript, [lig.] stands for *ligature*, while [Ø] indicates that the diacritic form of the short vowel *a* (phonologically rendered as /ə/) is not graphically expressed.

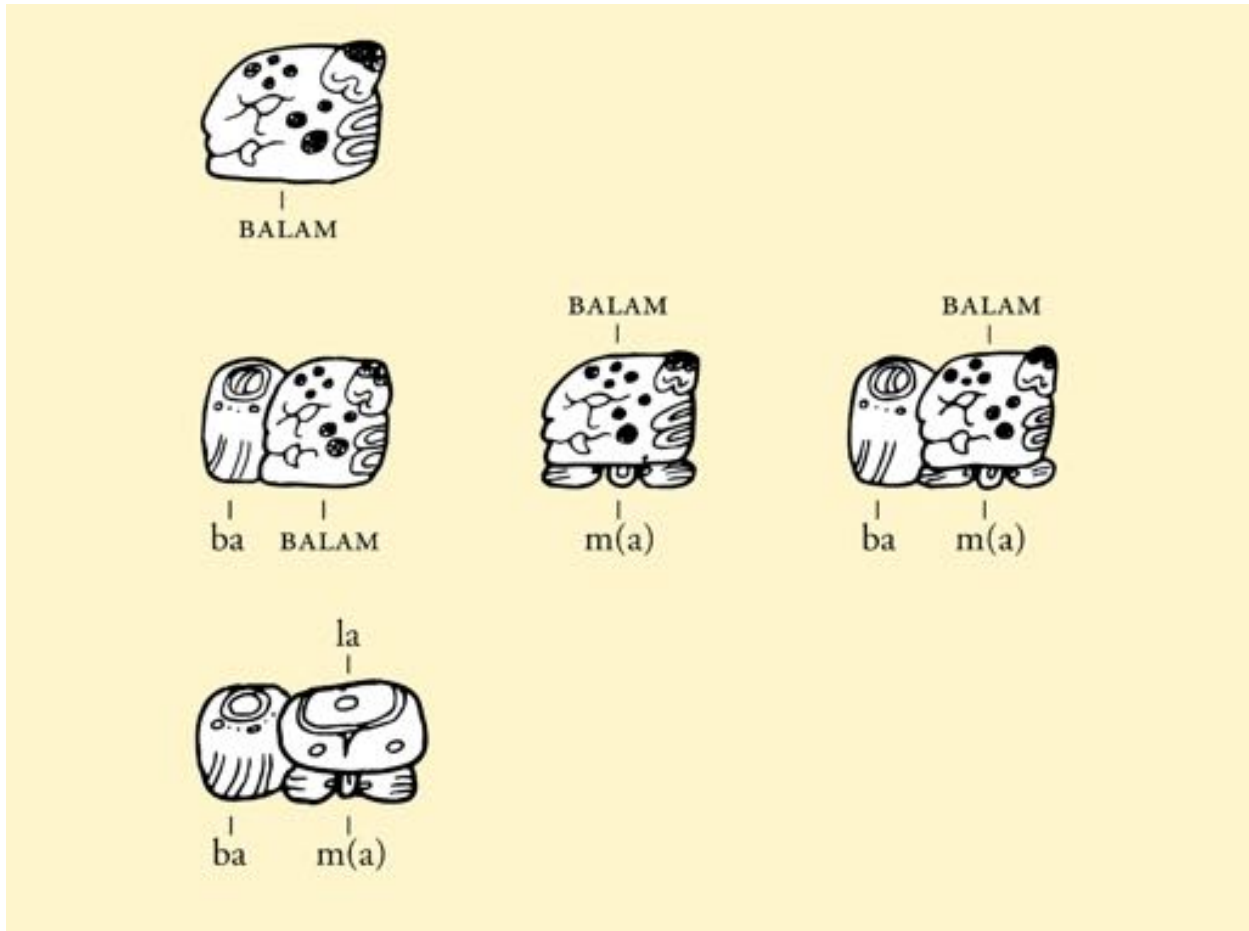


Fig. 1 Graphic variants of the Mayan cartouche expressing the word *balam*, “jaguar”.

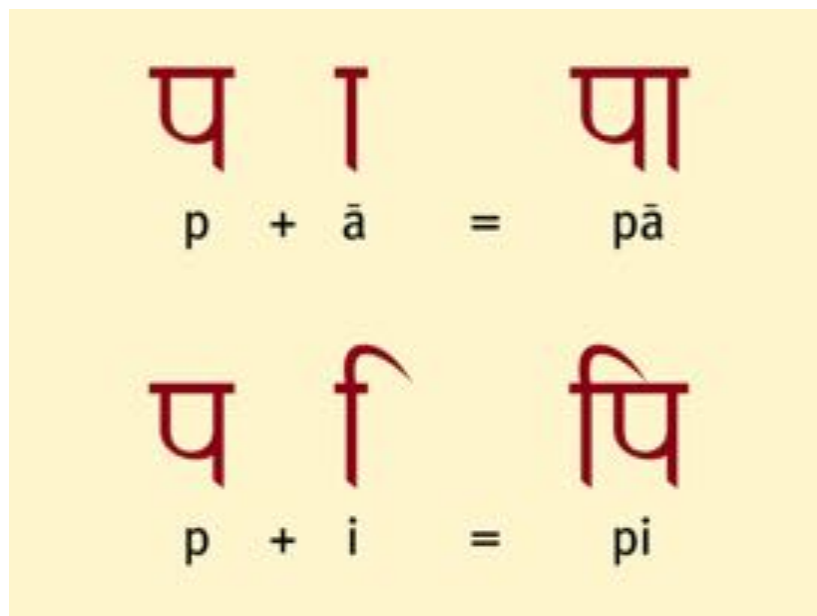


Fig. 2 Ligatures for ा [ā] and ि [i] in Devanagari script.

As regards the first principle, one cannot dismiss it without abandoning the logic of the one-to-one arbitrary and fixed correspondence between grapheme and phoneme (or syllable, or word) which is ideally the background of structuralist accounts. This in turn originates from a Western pedagogic

practice persistent throughout the history of European culture<sup>9</sup>. When «we are taught that *c-a-t* is pronounced [kat] ‘because’ *c* stands for [k], *a* for [a], and *t* for [t]»<sup>10</sup>, we are also trapped in that logic. Suffice it here to say that treating cases such as the spelling of the French word *oiseau* (where none of the alleged pairings of letter-sound seem to work, since the actual reading is [wazo]) as mere “aberrations” or “irrational spellings” misses the point, since in English spelling inconsistencies and complicated mappings of letters to words are the rule, not the exception. The letter <u>, for example, is used in order to “represent” at least five different phonemes (*put* [pʊt], *but* [bʌt], *burke*, [bɜ:k], *bury* [ˈberi], *business* [ˈbiznis]) and a diphthong (*duty* [ˈdju:ti]), whereas in the digraph <ui> of *build*, [bild] the <u> is not pronounced at all; and of course the same phoneme can be “represented” or “transcribed” in several different ways<sup>11</sup>. From this point of view, to see English alphabetical spelling as a better (i.e. more accurate and effective) form of “visible speech” than Chinese so-called “logography” is somewhat arbitrary: even behavioural and anatomical evidences – obtained through the use of positron emission tomography (PET) – shows that brain regions activated by reading Italian *vs* English words aloud differ considerably<sup>12</sup>. As a consequence of these findings, one should assume that the so-called “alphabetical principle” is not a principle at all, and that to compare English and Italian written languages is a mistake; indeed, this is the same as answering the two problematic questions undermining a substitutive and vicarious view of writing such as the *visible speech* one: (i) there is no fixed rule at the basis of any “representative” or “transcriptional” relationship between written marks or characters of any sort and linguistic units: mapping procedures are contextually and co-textually defined, even though writers tend to assume as “normal” or *default* practices they are taught in formal education and internalized as their “writing ideology”; (ii) there follows a basic need to investigate both differences and parallels affecting the structures of written and oral domains, since a complete congruence of the two is logically excluded. Hence both (1) and (2) should be rejected as viable generalizations about writing; what still remains valid of the “phonoptic myth” is the mere (but essential) assumption that writing and speech are two independent but practically-connected systems of signs, whose mutual relationships are shaped through historically produced and “local” regularities.

Insofar as writing and speech *could* in fact *be somehow linked together* (albeit not in the form of a direct, mutually “representational” relationship, as we have seen), they must (or at least, should) be studied together; but this is just one possible consequence of the arguments discussed so far. Another response to the collapse of substitutive-transcriptional hypotheses is actually to assume an “autonomist” position – i.e. to claim that writing should be considered *in some way* apart from speech

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<sup>9</sup> ROY HARRIS, *The origin of writing*, London, Duckworth, 1986; ID., *Signs of writing*, London-New York, Routledge, 1995; ID., *Rethinking writing*, cit. Supporters of this one-to-one ratio, to be true, never intended it in the same rigid way as in logic and mathematics where univocal determination, congruence and non-ambiguity are the main criteria at the basis of a “notational system”, as distinct from any other “symbolic system” (NELSON GOODMAN, *Languages of art*, New York, Bobbs-Merril, 1968). According to Goodman, ordinary languages *are not* notational systems (i.e. they are essentially *ambiguous*); hence the same holds true for written records of these, whose character is intrinsically “impure” – as expressed by Gelb’s famous aphorism quoted at the beginning of §3 *infra*. The problem with this argument is that it is often considered a simple recognition of different “fixed ratios” at work in the same writing system (e.g. there are *some* logographs in any alphabetical written language, as well as *some* uses of phonetic signs in any logosyllabic systems). However, in so doing the researcher superimposes an arbitrary theoretical grid on the actual use of written records in the communicative practices of different communities, when those differences are never felt either at the phenomenological or the metagraphetic level.

<sup>10</sup> HARRIS, *The origin of writing*, cit., p. 87.

<sup>11</sup> GIOVANNI LUSSU, *La lettera uccide*, Viterbo, Stampa Alternativa & Graffiti, 1998; ID., *La forma del testo/1*, in S. Covino (ed.), *La scrittura professionale. Ricerca, prassi, insegnamento*, Firenze, Olschki, 2001, pp. 63-67.

<sup>12</sup> JULIE A. FIEZ, *Sound and meaning: how native language affects reading strategies*, «Native neurosciences», 3 (1), 2000, pp. 3-5; ERALDO PAULESU *et alii*, *A cultural effect on brain function*, «Native neurosciences», 3 (1), 2000, pp. 91-96.



and its multilevel structure<sup>13</sup>. But what does this “somehow” in practice amounts to? In this case, too, there are two different options, namely a *formal* autonomy and a *functional* autonomy.

We can express the thesis of formal autonomy of writing vis-à-vis speech by the following statement:

(5) writing can be «entirely autonomous with respect to the linguistic system, even though the content of the signs [...] is necessarily the same in the two systems; that is to say, human experience [*l'expérience humaine*]»<sup>14</sup>.

In other words if – still according to the Saussurean axiom – «language is form, not substance», one could both dismiss the idea (deeply rooted in linguistic and anthropological thought) of the *primacy of speech* and accept that each “substantial” manifestation, in the expression plane, of the same content plane could differ from any other, because «different systems of expression can correspond to one and the same system of content»<sup>15</sup>. But this apparently adamant position conceals a methodological trap, since glossematians – who supported it since the Sixties of last century, together with theorists of “medium-translatibility” theory – are not at all clear in explaining its premises and consequences. According to Llorach’s formulation, in fact, this kind of autonomy could provide a justification for a “purely ideographic” reading of systems such as Chinese (as well as “ideal” logical languages such as those described by Frege and Neurath), where there is «an immediate and direct expression of the content»<sup>16</sup>.

One can hardly see, however, in what sense this could explain the working of Chinese writing better than the non-autonomist claim according to which, e.g., the character 日 do express *the Chinese word /rì/, ‘sun’*. The formal approach to autonomy is really valid only if we consider the graphic expression plane *apart from* content, as a system of pertinence *on its own terms*: as we shall see in more details below, it is then possible and useful in order to detect interesting symmetries (relating the above example to the reduplicated character 晶, standing for the word [jīng], ‘crystal’), or principles of combinatory and proportional construction always at work in the designing of different characters. But if we adopt an internal perspective<sup>17</sup> – i.e. an analysis of graphemic system without any relationship to the phonic counterparts of the written signs – we betray (5) *ipso facto*, which is based on the necessary mapping of both written and oral expressions forms onto a ideally *identical* content plane in order to assess autonomy.

What remains, then, of the alleged autonomy? Hjelmlev (and Uldall<sup>18</sup>) are more explicit than Llorach in unveiling the real “ideological” import of their position. Their theoretical move –

<sup>13</sup> JACQUES ANIS, JEAN-LOUIS CHIS, CHRISTIAN PUECH, *L'écriture: théories et descriptions*, Bruxelles, De Boeck, 1988.

<sup>14</sup> EMILIO ALARCOS LLORACH, *Communication orale et graphique*, in A. Martinet (ed.), *Le langage*, Paris, Gallimard, 1968, pp. 513-568, my translation.

<sup>15</sup> LOUIS HJELMSLEV, *Prolegomena to a theory of language*, Madison, University of Wisconsin, 1961, p. 105.

<sup>16</sup> LLORACH, *Communication orale et graphique*, cit., p. 521, my translation. Despite the many criticisms raised against the ‘ideographic myth’ during the last half century (cf. JOHN DEFRANCIS, *The Chinese language: fact and fantasy*, Honolulu, University of Hawaii Press, 1984), this fascinating idea is still hold by scholars, although for restricted chronological periods and uses of Chinese script: thus Léon Vandermeersch stated recently that «manticism is the prelude of the speculation at the origin of Chinese ideography as a tool for inscriptions on bones and turtle shells. It is clear that these inscription are independent from speech, since ideography is a pre-scientific tool not intended for communication but rather for mantic research» (LÉON VANDERMEERSCH, *Les deux raisons de la pensée chinoise. Divination et idéographie*, Paris, Gallimard, 2013, p. 11, my translation).

<sup>17</sup> Cf. MAURICE COYAUD, *La pertinence en graphémique*, in N. Catach (ed.), *Pour une théorie de la langue écrite*, Paris, CNRS, 1988, pp. 157-163.

<sup>18</sup> HANS JØRGEN ULDAALL, *Speech and writing*, «Acta Linguistica», IV, 1944, pp. 11-16.

separating graphic from phonic expression planes – is the expression of a polemical stance against normative orthographic claims; indeed, there is no reason to argue for a “right” way to write any given word if we assume a “semiotic freedom” between writing and speech, both expressing the same linguistic content. Uldall’s spoken chain [kat] may well have as its corresponding written chain <cat> – but of course it could be otherwise: indeed, the orthographic (and ideological) variations in writing traditions seem to enforce our idea of a growing flexibility and intrinsically mixed nature in contemporary written practices. However, insofar as glossematians still take for granted the “classical” (but false) one-to-one ratio between expression and content they also imply, as Harris aptly notes<sup>19</sup>, that «neither English speech nor English writing properly express English» – as a consequence of the many cases of homography and homophony. Devoid of the powerful resource of “internal perspective” (as well as of that the oral-graphic approach based on the concept of “transcriptional isomorphism”), this primacy of linguistic form simply means that “English” as an abstract scheme, (but also “Italian”, “Hebrew”, “Hindi”, “Zulu” and so forth) is a sort of fictional entity: when “embodied” – graphically, phonetically – it loses its ideal status of “proper” expression, and falls into an impure state of “inconsistency” – indeed, just as in derivative and surrogational definitions typical of the *visible speech* model we have criticized so far.

What about functional autonomy? To sketch an account of this approach, another couple of related statements is needed:

- (6) writing is a system of graphic means which fulfils a series of specific social functions quite different from those fulfilled by speech<sup>20</sup>;
- (7) although *in abstracto* everything that is said can also be written (provided that pertinent rules of “translatability” are available), in practice (i) writing and speech differ (as a consequence of [6]) in terms of contexts and goals for which they are used and (ii) they impose different grids upon experience, thus producing somehow «different realities»<sup>21</sup>.

According to Halliday, for example, English written language is defined by what he calls *lexical density*. Take the following two sentences:

- (8) Slavish imitation of models is nowhere implied.
- (9) It is not implied anywhere that there are models which should be slavishly imitated.

The same basic information is presented more densely in (8) – which contains just seven items and only three function words (*of, is, nowhere* – the latter however also carrying lexical content) as opposed to content words – than in (9) – where the number of elements is doubled, with ten function words; the former, Halliday suggests, displays a typical written norm (although I can read it aloud, if I want), while the latter displays a typical spoken norm (despite the fact that I can write it down).

<sup>19</sup> HARRIS, *Rethinking writing*, cit., p. 198.

<sup>20</sup> JOSEF VACHECK, *Some remarks on writing and phonetic transcription* [1945-49], E. P. Hamp, F. W. Householder, R. Austerlitz (eds.), *Reading in linguistics II*, Chicago, University of Chicago Press, 1966, pp. 1152-1157.

<sup>21</sup> MICHAEL A. K. HALLIDAY, *Spoken and written language*, Victoria, Deakin University, 1985. Another stronger claim could be raised in this context: if language in its oral mode is given the features of omniformativity and omnitranslatability (i.e. everything you want to express *can be expressed in speech*; and every content that has been expressed in any communicative form *can be translated into speech*), then all *linguistic* content expressed in writing is part of the field of reference of speech (ANTONIO PERRI, *Le medium et le message. Une approche sémiotique et anthropologique à l'étude des systèmes d'écriture*, in *Semiotics and the Effect-of-Media-Change Research Programmes*, G. Blasi, A. Bernardelli (eds.), «Versus. Quaderni di studi semiotici», 72, 1995, pp. 107-1281). Note, however, the italics I deliberately used in qualifying as *linguistic* the content involved: indeed, it is possible that other dimensions of communicative practices are not as easily “translatable”.

However, it is difficult to generalize such an hypothesis to languages and settings far away from the English alphabetical standard that is the basis of this functional account<sup>22</sup>. Since they devise a typology of writing systems – in this way assigning the status of “writing” only to visual systems which “graphically represent” or transcribe language, in a curious roundabout which comes back to the *visible speech* thesis otherwise refuted – Halliday and Vacheck cannot account for more complex situations where it is virtually impossible to decide *whether or not a given sequence of written signs, while performing a special function, is also admittedly read aloud*.

The case of calendric notation in Aztec pictorial manuscript of the early Colonial period is emblematic of such a dilemma. When recording historical facts of an emperor’s rule, manuscripts like the *Codex Mendoza* had a pictorial calendric count listing year after year the entire length of each ruling period<sup>23</sup>. This sequence – a sample of which is provided in fig. 3 – was placed along the margins of each section of a *xiuhamatl* (the Nahuatl word for ‘annal’) to be “read” first, in accordance with syntactic rules of the language. Mexican year signs are conventional written signs easily identified and named (e.g. *nahui tochtli xihuitl*, ‘Four-Rabbit Year’, *matlactli omeyi acatl xihuitl*, ‘Thirteen-Reed Year’ etc.); should we then assume that every year count (such as the fifty-one-years-long count of folio 2r, narrating the founding of Tenochtitlan, or the ten-years-long count of folio 4v shown in fig. 3) was declaimed in details orally at each reading of the pictographs, or the entire series of signs was somehow “read by eyes”, saying aloud only the initial and final years of the *xiuhpohualli* (= ‘count of the years’)? Note that in upholding the latter view, one does not need to imply that is *impossible* to somehow “read aloud” the complete year-sequence – because according to (7) this is not the case –, but rather that *two different sets of functional norms* govern the structures of *visual vs aural* texts<sup>24</sup>. Autonomy, then, is a question of actual practices and cannot be assessed in terms of “internal”, structural features. In short, moving from the basic feature of a functional perspective – and at the same time leaving out the need for a rigid “representative rule” describing the relationship between writing and speech – we are led to an integrated study of writing habits seen as no more than a special form in the total flow of societal communicative practices.

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<sup>22</sup> Cf. ANTONIO PERRI, Review of M.A.K. Halliday, *Lingua parlata e lingua scritta* [*Spoken and Written Language*], «Il Mondo 3», 1/94, pp. 367-369.

<sup>23</sup> FRANCES BERDAN, PATRICIA RIEFF ANAWALT, *Codex Mendoza*, 4 vols., Berkeley, University of California Press, 1992.

<sup>24</sup> It is worth noting that, as a consequence of the process of acculturation, Nahuatl codes of written calendrical notation evolve towards an European “annalistic” standard both in the pictorial mode (see e.g. the historical account of colonial period in *Codex Telleriano-Remensis*; ELOISE QUIÑOES KEBER, *Codex Telleriano-Remensis*, Austin, University of Texas Press, 1995) and in Nahuatl texts alphabetically transcribed.





Fig. 3 The ten-year glyphic record in folio 4v of *Codex Mendoza*.

Despite the recent and innovative take of writing as a (social) practice perspective, its main argument can be traced back to Leonard Bloomfield's classic work, *Language*<sup>25</sup>. While adopting towards writing exactly the same attitude held by most European structural scholars at the beginning of the century – i.e. writing is seen as an «exterior device» – Bloomfield's commitment to behaviourism forced him to focus on the *real practical use* of written communication between individuals. Lacking an alternative behavioural model to the one he sketched for speech use, he decided to extend the latter in order to cover writing practices as well. He then argued: «a symbol 'represents' a linguistic form in the sense that people write the symbol in situations where they utter the linguistic form, and respond to the symbol as they respond to the hearing of the linguistic form»<sup>26</sup>. What is at stake in this statement is not the obvious naiveté of equating speech use and effects with those of writing through a simplistic model based on a stimulus-response mechanism; rather, it is the fact that writing was assigned the same "power to *perform*" accorded to actual speech, irrespective of the presence of physical actors which is the main feature of face-to-face interaction (but not of written communication). Moreover, in deliberately maintaining an antimentalistic stance, Bloomfield altogether dismissed the idea of mental processes underlying this communicative practice and that of the binary and fixed nature of the sign: no matter what specific code(s) are at work in a single communicative situation and regardless of the (mainly psychological) intention(s) of

<sup>25</sup> LEONARD BLOOMFIELD, *Language*, London, Allen & Unwin, 1935.

<sup>26</sup> BLOOMFIELD, *Language*, cit., p. 285.

the participants, the *performative power* of writing (and of its product, a given *text*) is effective if the expected response(s) are present<sup>27</sup>.

Compare this view with Harris's integrational account of writing-as-a-practice. According to Harris:

(10) communication consists in the «contextualized integration of human activities by means of signs»;

(11) since writing is «an integration of skills»<sup>28</sup>, then any written text as sign can appear (and act) only “in context”, with all its relevant constraints at work (biomechanical, macrosocial, and circumstantial).

The unexpected conclusion runs as follows<sup>29</sup>:

(12) «Any graphic configuration acquires a certain linguistic value insofar as it serves to articulate the integration of one form of verbal activity with another, or verbal activities with non-verbal activities» (italics in the text).

As in Bloomfield – but this time analytically distinguishing between the performing of different (albeit articulated) activities – primacy is given to significant practices, which constitute meaningful and effective behavior. The consequences for traditional wisdom about writing are immense, since the focus on integrated and contextual “products” cuts across the traditional divide between glottic and non-glottic writing and the received typological models altogether<sup>30</sup>. When for example DeFrancis argues for the intrinsically different nature of a Sumerian clay tablet that a sumerologist can pick up telling us what it says and, on the other hand, instances of pictographic writing always dependent on «preconcerted agreement regarding the content»<sup>31</sup>, he grounds this assumption on the fact that in the former case (but not in the latter) we can rely on contextless conventional and uniform rules for matching forms and meanings – or at least, so it seems.

We have elsewhere articulated the contradiction in terms of such a notion of given, fixed and context-free written signs<sup>32</sup>; suffice it to say that, from both an Harrisian and an anthropological point of view, DeFrancis's claim cannot hold. Do we really think that, *as a communicative practice*, there should be any significant difference between the *àròkò* Yoruba message made with shells in fig. 4

<sup>27</sup> The behaviorist paradigm is obviously inadequate when applied to written communication, since technical requirements involved in writing and reading imply some degree of control of behavior, which can't simply refer to unreflecting habits. However, the agentive and intentional properties of those skilful acts (cf. ALESSANDRO DURANTI, *Intentionality*, in Id. (ed.), *Key terms in language and culture*, Malden, MA, Blackwell, 2001, pp. 129-131) are not necessarily connected with a psychologistic view of communication; this is not the case, e.g., for Husserl's intentionality as the property of being directed “about” something, which shows a clear objective address (EDMUND HUSSERL, *Die Idee der Phänomenologie*, Den Haag, Martin Nijoff, 1950 [1913]).

<sup>28</sup> HARRIS, *Signs of writing*, cit., pp. 4-5.

<sup>29</sup> HARRIS, *Rethinking writing*, cit., p. 211.

<sup>30</sup> Often presented in the form of family trees, cf. those reproduced in DEFRANCIS, *Visible speech*, cit., pp. 56-64. The absence of those kinds of devices in this paper is justified in § 2 below.

<sup>31</sup> DEFRANCIS, *Visible speech*, cit., p. 46.

<sup>32</sup> Cf. ANTONIO PERRI, *Evento linguistico vs evento scritto: verso un nuovo modello*, «Rivista di psicolinguistica applicata», VII, 2, 2007, pp. 125-145; ID., *Repertori grafici e scrittori. Un modello integrato applicato a contesti storico-antropologici controversi*, in M. Mancini, B. Turchetta (eds.), *Etnografia della scrittura*, Rome, Carocci, 2014, pp. 263-324.

(taken from Dalby<sup>33</sup>) and the Linear B clay tablet from Pilo shown in fig. 5, written some 3,400 years ago (taken from Chadwick<sup>34</sup>)?

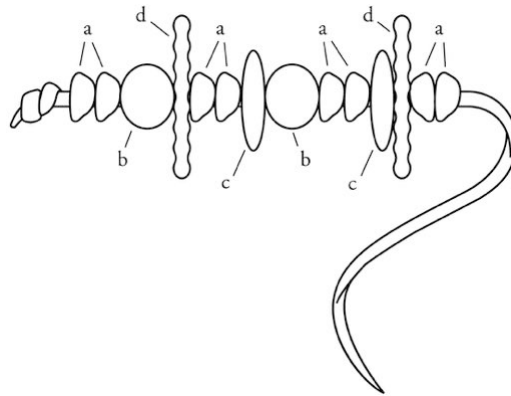


Fig. 4 Àrókò message made of shells, seeds and wooden sticks found among Yoruba.



Fig. 5 Clay tablet in Linear B from Pilo (approx. XIV century b.C.), a list of rowers in a sheep going to Pleuron.

To be sure, neither of the two documents is intended to be read aloud – as any instance of “true” visible speech approach would clearly imply; also, the fact that we are able to tell (more or less) what the Linear B tablet “says”<sup>35</sup> is simply the outcome of our independent (and inferential) acquaintance with some “fixed” conventions of meaning we apply mechanically to the document. An expert of Aegean script could never assess *how* this text was *used* (i.e. read, scanned, consulted, or

<sup>33</sup> DAVID DALBY, *L'Afrique et la lettre*, Paris, Karthala, 1986 ; cf. also GIOVANNI LUSSU, ANTONIO PERRI, *La scrittura e i paradossi del visibile*, «Il Verrini», 10-11, 1999, pp. 52-62.

<sup>34</sup> JOHN CHADWICK, *Linear B and related scripts*, London, The Trustees of the British Museum, 1987.

<sup>35</sup> The fact that it is a list of rowers to Pleuron is suggested by the “title” (the first line of the text). In each horizontal line we find signs marking the denomination (name?) and origin of the rowers, followed by their qualifications (the graphic element to the right, almost identically repeated at every line), and finally by the total amount of men (ranging from four to eight per line). It is easy to see that the text is nothing more than a tabulation.

whatever). Similarly, we can tell what the Yoruba message “says” (it is a message from king Ijebu to the king of Lagos upon his return to his throne<sup>36</sup>) because we are independently acquainted – although presumably through “oral explanations”, and not through other written texts acting as interpretants in Peircean terms – with the elaborated conventions of meaning implied by this form of communication. Compared to the clay tablet, the main difference is that in the case of the so-called African *aide-mémoire* we know *how the message acts* in its proper use as a specific and integrated communicative practice, since we actually know about the macrosocial and circumstantial setting of the text.

Drawing from the above discussion, then, I propose the following, anthropologically-oriented working definition of writing which benefits of some basic feature of those discussed so far:

(13) In an anthropological sense, writing includes all social and communicative integrated practices that use systems of graphic (sometimes also material) signs which are recurrent, combinable, goal-autonomous, partially autonomous in their internal structure, and conventionally linked to linguistic content through specific sets of culturally defined social activities<sup>37</sup>.

### *Three (semiotic) theses about writing*

The above discussion of the general definitions and frames of reference in the study of writing lacks an essential resource of formal linguistics – i.e. detailed typological analysis aimed at providing an exhaustive classification of writing systems. This is because the focus on practices and habits necessitates a concrete approach, doing without abstract phenomena such as “family trees” and “operative criteria”. Every written message-in-context, in other words, is an intrinsically complex event which cannot be reduced to a mere “sum” of discrete elements – just as it is a futile move to reduce oral, face-to-face communication to a simple aggregate of “linguistic utterance + illocutive force + paralinguistic signals + proxemic indexes + contextual factors”. Anthropologically speaking, there are no ideographic systems (or alphabetic, syllabic etc.) *in abstracto*, since classifying a script means producing conceptualizations of hypotheses based on the average use of written signs (which are really signs only when contextually bounded)<sup>38</sup>.

<sup>36</sup> In this material text the four pairs of cauris shells (a) stand for peoples who live in the four corners of the world; the fourth couple to the right has two shells leaning one against the other, to express friendship between the two peoples of Ijebu and Lagos. The other “sign-objects” always appear two times (meaning ‘you and me’): the bigger seeds (b) are used to play a local game (thus meaning ‘our peoples always will play together’), while the smaller seeds are from a plant called *osàn* whose name resembles phonetically the Yoruba verb *sàn*, ‘recover’ (thus meaning ‘I hope you got well’). Finally, the wooden sticks (d) are from a spice whose scent, when burned, is particularly agreeable: they mark a particular stress on the wish (like a suprasegmental feature in the speech mode).

<sup>37</sup> The present definition expands the one I provided in ANTONIO PERRI, *Writing*, in A. Duranti, (ed.), *Key terms in language and culture*, Malden, MA, Blackwell, 2001, p. 272).

<sup>38</sup> According to this view, the best form to express typological assessments about writing is not through Linnean family trees or mutually exclusive criteria, but rather through *fuzzy continua* dealing with a single feature – such as the one devised by DeFrancis and Unger, ranging from “purely phonetic” to “purely ideographic” systems. The continuum I proposed (ANTONIO PERRI, *Le médium et le message*, cit. pp. 113-114; ID., *Writing*, cit., p. 273) maintains the idea that the degree of pragmatic sensitiveness of a script is inversely related to its expressive power: it thus ranges between the two (purely theoretical) extremes of *signal-writing* – i.e. systems that tend to be exhaustively superimposed on explicit and de-contextualized acts of speech – and *metasemiotic-writing* – i.e. systems that tend to re-shape language implying a pragmatic, graphic and inferential competence.

We can, however, list three basic thesis which account for the features of writing systems we have seen so far, and can accordingly be used to describe the real functioning of any script; none of them is committed to a specific definition of writing, nor to a particular typology; nevertheless they are useful instruments in the framework of an integrational (i.e. practice-based) approach.

– Thesis 1

Today we can dismiss the idea of a “primacy of the alphabet”, since none of the different (but logically connected) criteria used to support this view is still valid, namely:

- notational efficiency
- biconditional or ‘unit-to-unit’ ratio in transcribing oral speech; and then
- an (alleged) loyalty of the script to this very speech.

Indeed, from the point of view of “internal structural evidence” any notational system (if it has to be labeled as “system”) will show a situated and specific efficiency: compare the structural articulation of a Latin “normalized” alphabet according to Mounin<sup>39</sup> as shown in fig. 6 – an external and somewhat arbitrary analysis superimposed to the basic notation, in order to find out units smaller than single letters – and the *internal* and *linguistically motivated* articulations of any Chinese character such as *nàng*<sup>40</sup> (with its 36 strokes and 9 basic components, as shown in fig. 7), which lies at the basis of the local efficiency of this system.

a = o+l	h = l+r	o = o	v = v/
b = l+o	i = l+	p = l+o	w = v/+v/
c = c	j = l+v+	q = o+l	x = v/+
d = o+l	k = l/+	r = l+r	y = v/
e = -+c	l = l	s = s	z = -/+
f = ^+l-	m = l+r+r	t = l+r	
g = o+s	n = l+r	u = l+l	

Fig. 6 Hypothesis of graphic internal articulation for a “normalized” latin alphabet, according to Mounin.



Fig. 7 The maximally complex Chinese character *nàng* (written with 36 strokes and 9 basic components).

<sup>39</sup> GEORGES MOUNIN, *Introduction à la sémiologie*, Paris, Les éditions de Minuit.

<sup>40</sup> Cf. MAGDA ABBIATI, *La scrittura cinese nei secoli. Dal pennello alla tastiera*, Rome, Carocci, 2012.



Since we have seen yet in the first paragraph that no spelling “rule” is rigid and structurally homogeneous in a given system, and that the same holds for the expected linear arrangement of graphic units we try to parallel with the sound flow of speech (as we can realize for example looking at the “graphic blocks” of Korean alphabetic script, cf. fig. 8), both the “transcriptional fallacy” and the idea of loyalty are by the same token ruled out.

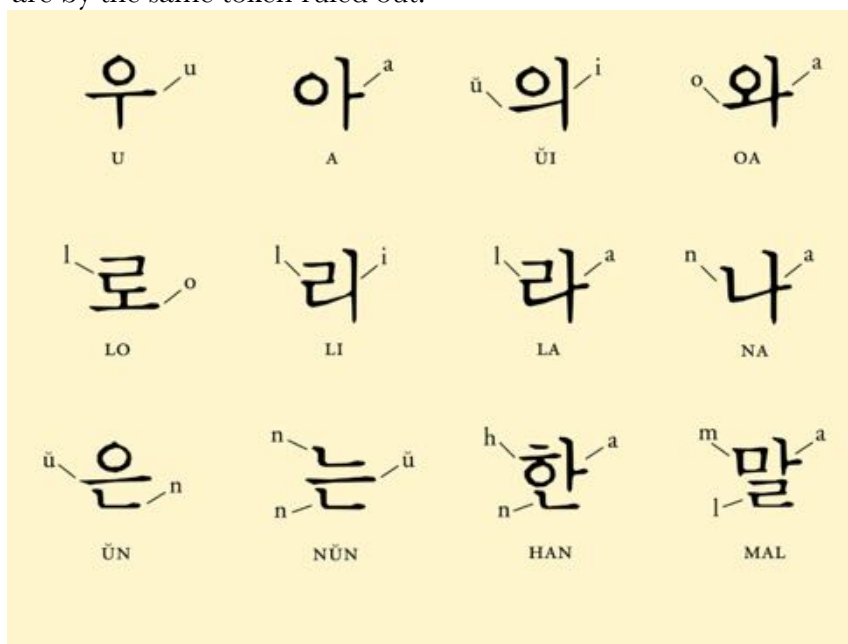


Fig. 8 Graphic internal articulation of syllabic blocks in Korean script.

– Thesis 2

In the long history of human graphism, we can sharply oppose

- *watching (at)* to *reading* as cognitive activities; and
- *images* (i.e. figures, or pictures) to (any sort of) *written character(s)* as products of graphic activities *only* in the context of *local, culture-specific practices* which stress such distinctions as relevant.

Two historical examples will suffice to explain this argument.

In the famous Narmer palette (reproduced in fig. 9), one of the older Egyptian hieroglyphic text dated to 3000 b.C., the internal graphic space of the artifact is articulated in order to code contents (also) linguistic through the non-linear structuring of pictorial units: it is a “full”, “analogical” narrative space in a «mixed, pictorial-linguistic form»<sup>41</sup> in which we can’t draw a clear distinction between phonetic elements (in principle readable: anthroponyms, toponyms) and other items we could still consider as “non-readable pictures” (albeit their significance is not merely representative nor exhibitiv).

<sup>41</sup> Cf. JOHN BAINES, *The earliest Egyptian writing: development, context, purpose*, in S. D. Houston (ed.) *The First Writing. Script Invention as History and Process*, Cambridge, Cambridge University Press, 2004, pp. 150-189.

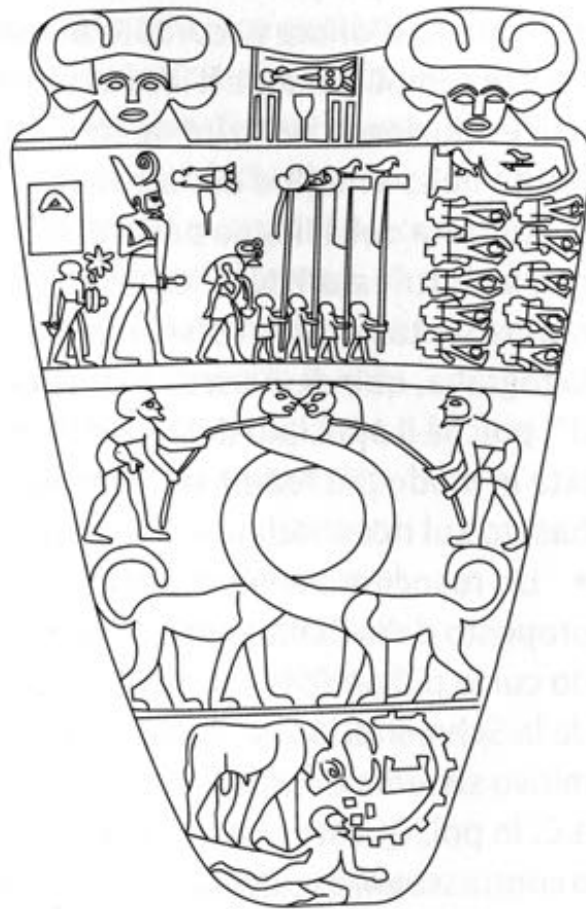


Fig. 9 The Narmer palette, ca. 3000 b.C.

The same, essential use of bi-dimensional graphic space in order to express the intrinsic structure of a text is seen in the medieval *Turris sapientiae* (fig. 10), a graphic artifact called by Antinucci *structuring image* insofar it *shows* (so that it is somehow *watched at*, rather than *read aloud*) the very structure of the noetic domain expressed by an otherwise ambiguous alphabetic text. According to Antinucci, indeed:

the specific medium found in order to fix language, namely writing, changes the language itself from audible – thus processable in time, and monodimensional – to visibile by the eyes and then placed in the space, which is multidimensional [...]. One can therefore think to explicitly represent the structure of knowledge to be communicated drawing it spatially, and articulating the text according to this very visual structure. The ‘image’ thus obtained will represent the structure of the text (or rather, more correctly, of the domain of knowledge expressed by the text)<sup>42</sup>.

<sup>42</sup> FRANCESCO ANTINUCCI, *Parola e immagine. Storia di due tecnologie*, Rome-Bari, Laterza, 2011, p. 120, my translation.

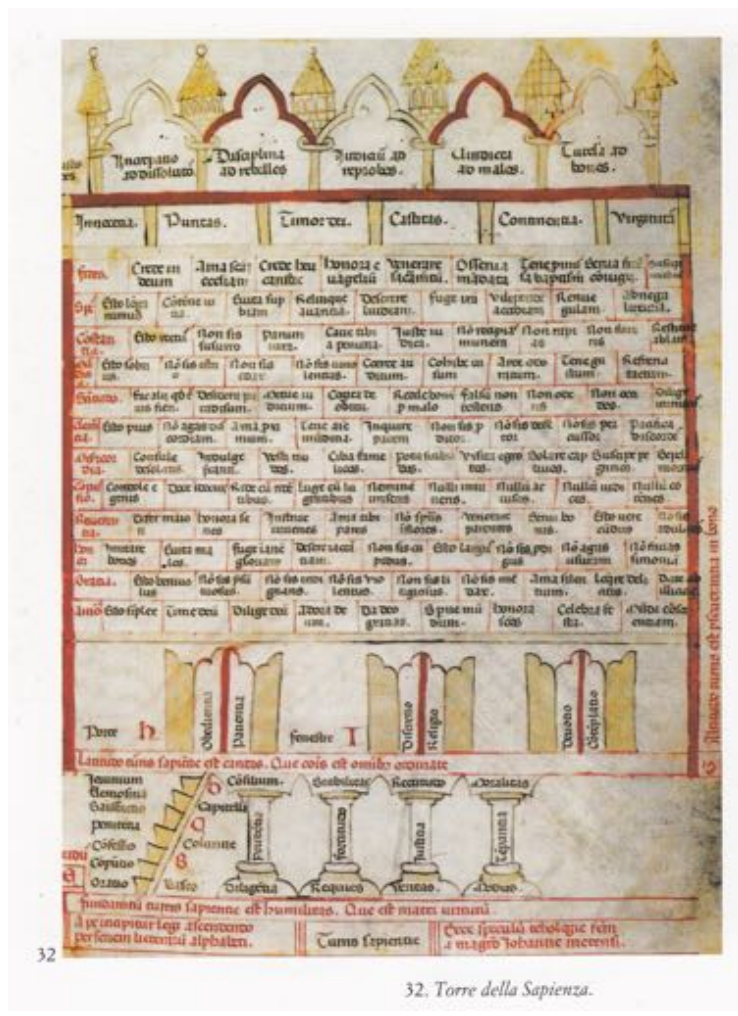


Fig. 10 *Turris sapientiae*, a medieval graphic artifact structuring visually and bi-dimensionally a complex semantic field.

### –Thesis 3

As a direct consequence of Thesis 1 and 2, pictorial notations *should not* be defined as non-conventional and non-linguistic, since they are never «entirely autonomous with respect to the linguistic system» (to quote still Llorach); on the contrary, they always articulate contents by culture-specific structural criteria. We have seen that in Chinese script, for example, the small number of *bǐ huà* or elementary strokes which are the basic components of every character (usually categorized into six basic types, but out of which «more than thirty kinds of stroke types can be formed ... through combination and connection»<sup>43</sup> [Yin Binyong 1994: 97]) still represents a distinctive feature of scholarly approaches to writing “philosophy”, and an integral part of a complex ideology defining the metagraphetic awareness of most Chinese writers and readers. Similarly, in Aztec writing, *pictographemes* such as <tepetl>, ‘hill’, show an internal structure of graphic traits articulating a definite set of glyphs with contrasting readings when analyzed in terms of distribution and commutation tests (cf. fig. 11)<sup>44</sup>.

<sup>43</sup> YIN BINJONG, *Modern Chinese characters*, Beijing, Sinolingua, 1994, p. 97.

<sup>44</sup> ANTONIO PERRI, *La ‘parola fiorita’ e l’immagine-testo. Per una teoria forte della scrittura azteca*, «Il Mondo 3», n. 2, 1994, pp. 240-258; ID., *Il problema delle unità minime nella scrittura azteca*, «Testo e senso on line», n. 11, 2010 (<http://testoesenso.it/article/view/4>).

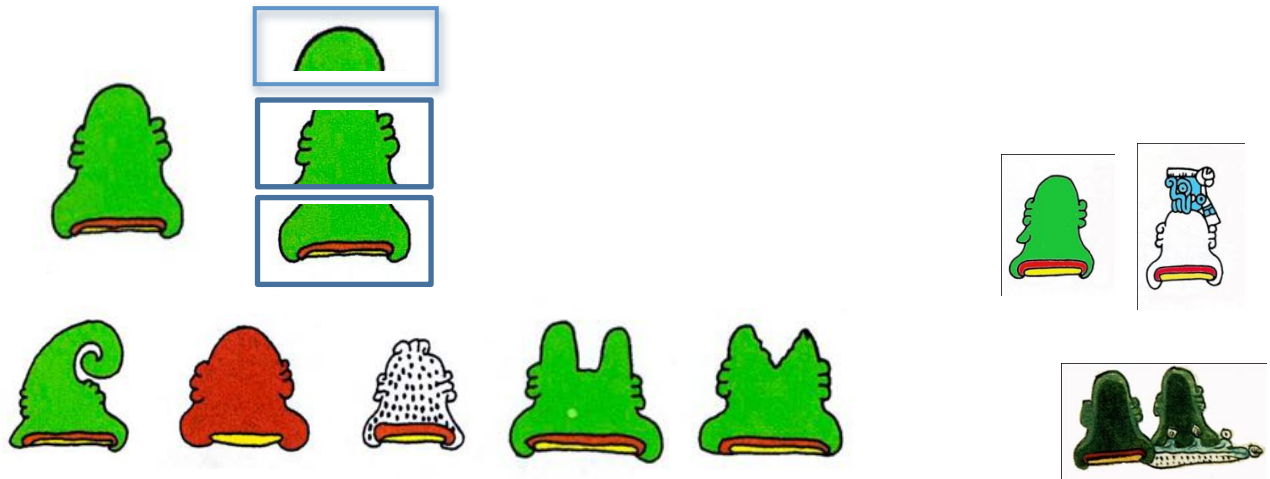


Fig. 11 Internal graphic articulation of the Aztec pictorial glyph <tepetl>, 'hill' and a series of complex units obtained through commutation of a single feature.

More important, in pictorial scripts also it is worth noting the “isomorphic” structure of glottic notational systems such as the Inuit syllabary or the Hussite version of the Latin alphabet, which has a *haček* to note palatalization. Micro-patterns based on structural proportion on both levels – i.e., for the Hussite alphabet, <s> : <š> = <z> : <ž> in the expression plane corresponds in the (phonic) content plane to /s/ : /ʃ/ = /z/ : /ʒ/ – find an exact parallel in Aztec script: <tepetl> : <tepehueiac> [‘hill’ : ‘high and long hill’] = <teopancalli> : <teopacalhueiac> [‘temple’ : ‘high and long temple’], where the content plane is situated at a morphophonological level<sup>45</sup>: /tepeλ/ : /tepe-wejak/ = /teopankaλ:i/ : /teopankaλ-wejak/ (*hueyac* standing for ‘high and long’).

*From Unicode to the “domain of images”: mixing of codes and practices of literacy*

More than fifty years ago, in a seminal book where the “foundation for a full science of writing” was laid and given the prophetic name of *grammatology*, the assirologist Ignace Gelb wrote one of the most quoted remarks about contact and mixing phenomena in writing systems:

There are no pure systems of writing just as there are no pure races in anthropology and no pure languages in linguistics. As elements retained from an older period and innovation ahead of the accepted development may be found in a language of a certain period, so a system of writing at one period may contain elements from different phases of its development<sup>46</sup>.

According to this descriptive, evolutionary and diachronic treatment, Gelb’s approach to contact between writings is, on one side, framed in terms of *systemic interferences* (similar to Weinreich’s proposal of a structural theory of interference in spoken languages as sketched in

<sup>45</sup> Traditionally, the concept of “level” is part and parcel of a theory of glottic scripts distinguishing different kinds of glottic systems “according to which units in the spoken language appear to have been selected as the basic units for representation in writing” – thus identifying two major levels: ‘pleremic’ (i.e. of independently meaningful units) and ‘cenemic’ (i.e. of units with a mere phon(et)ic value); cf. HARRIS, *Signs of writing*, cit., p. 95; cf. also WILLIAM HAAS, *Writing: The Basic Options*, in Id. (ed.), *Writing without Letters*, Manchester: Manchester University Press 1976, pp. 131-208; ID., *Determining the level of a script*, in F. Coulmas and K. Ehlich, (eds.), *Writing in focus*, Berlin: Mouton, 1983, pp. 15-29). The problem with this approach is that, drawing from the idea of a rigid representative ratio (cf. above), it also presupposes a *clear distinction* between levels which is far from being attained even in alphabetical writing; it is, thus, deprived of any theoretical value when applied to non-fixed units, including most of the pictorial writing units discussed so far.

<sup>46</sup> GELB, *A study of writing*, cit., pp. 199-200.



*Languages in contact*, whose original issue in 1953 was almost contemporary to the first edition of Gelb's book, published one year before<sup>47</sup>); but on the other side it is necessarily centered on an historical heritage and stratification of elements or units.

No attempt has been made at dealing with multigraphism or written code mixing as *processes*, i.e. with practices of situated interference and contact we find in the realm of textual products (the Saussurean *parole*). The aim of any ethnolinguistic study of writing is exactly this: exploring a phenomenology of contact empirically grounded and textually centered, through the analysis of specific case-studies not only at the level of individual (and in some extent 'private') repertoires but as public, exposed, often professionally produced texts in which technological and ideological constraints are also (and mainly) at work.

Besides interferences and calques intrinsic in a view of writing systems as tools constantly developing new signs, and being influenced by language and writing contact<sup>48</sup> another intriguing kind of mixing is at stake in literate societies, which we could aptly define as *notational*<sup>49</sup> – i.e. not involving spoken language at some representational level but dealing uniquely with units or characters borrowed as such in order to integrate a graphic notation (irrespective of the linguistic values they will receive).

Think for example, to quote just an historical case, to the so-called Cherokee "alphabet" dealt with by Ellen Cushman<sup>50</sup>. Leaving aside this inadequate typological label (it is in fact best described as syllabic system), the proper of this script is undoubtedly its hybrid characters at graphic-expressive level: a *prima facie* chaotic mix of glyphs resembling Roman, Cyrillic, Greek letters and Arabic numerals, whose reading bears no "etymologic" relation with the original phonetic values of every units in their ancient notational grids and systems. Nevertheless, Sequoya's invention raised the status of a standard script, whose orthography made of it a new, original writing system.

However, we should also emphasize a fundamental difference between texts in terms of their technological nature: nowadays, in western countries, we are dealing less with handwritten products than with typographic ones – sometimes even professional artifacts, made by type and graphic designers but seen (and often read) by people everywhere in the web, in the streets, on newspapers and magazines, in books and e-books.

Texts, it should be added, are always products of literacy practices which – even if not observable as such, and therefore not ethnographically described – we can always "see through", moving from a careful inspection of their traces in textual products and noticing further practices, yielded by those very products<sup>51</sup>. Furthermore the functions of each piece of writing is to be carefully considered, since they are intersected with issues of dominance over the rules, programs, genres and spaces of written communication. In this respect the idea of a open-ended, democratic social space of writing in our contemporary western societies as opposed to "non-westernized" ones is a nonsense, a sort of side-effect of the misunderstood liquidity which defines, according to many, the electronic writing in the web: far from dismantling the rigid, normative apparatuses of literate societies web writing creates new, flexible but dividing norms for the managing of writing space. Today indeed, with the spread of digital media, *mixing* practices and multilingualism reached a complexity and took advantage of technical devices never experienced before.

<sup>47</sup> HARALD WEINREICH, *Languages in contact: findings and problems*, New York, Linguistic Circle, 1953.

<sup>48</sup> BARBARA TURCHETTA, ANTONIO PERRI, *Teaching the writing codes in contact. Towards a pluriliteracies approach in literacy practices*, paper presented at WRAB, Writing across Borders Conference III, Paris, February 19<sup>th</sup>-22<sup>nd</sup>, 2014.

<sup>49</sup> ANTONIO PERRI, BARBARA TURCHETTA, *Codici interferiti*, in M. Mancini, B. Turchetta (eds.), *Etnografia della scrittura*, Rome, Carocci, 2014, pp. 325-361.

<sup>50</sup> ELLEN CUSHMAN, *The Cherokee syllabary. Writing the people's perseverance*, Norman, University of Oklahoma Press.

<sup>51</sup> JAN BLOMMAERT, *Grassroots literacy. Writing, identity and voice in Central Africa*, London-New York, Routledge, 2008.



To quote extensively Florian Coulmas, from a paper where he discuss the possibility that the Roman script will emerge as universal graphic code in the web<sup>52</sup>:

The development of multilingualism in the Internet has been faster than that of technical and social standards of managing Internet addresses and domain names. The number of electronically developed languages grows by the day. While initially those in roman script had an advantage, this is no longer so. For one thing, the name of the game is no longer ASCII but Unicode, which has a much wider reach and accommodates vastly more characters. For example, the search engine Google allows you to search for information in some 180 languages in their own scripts about half of which are not roman. Electronic reference tools are being developed for many languages hitherto confined to their small speech communities. Unicode is the tool of globalization of written communication. It is designed to bring order to a field where technological innovation develops according to its own logic, gaining autonomy and producing unexpected consequences. Perhaps not surprisingly, but to some unexpectedly, the globalization of communication goes hand in hand with the regionalization and localization of new technologies. It should be noted, however, that Unicode will not, as it was meant to, encode all characters of all writing systems past and present.

Unicode provides for 60,000 codes, but Chinese alone need 50,000. What is more, so far not even the Chinese-speaking communities have established a common standard for Chinese characters. Whereas the new technology initially seemed to push homogenization, it now serves to preserve heterogeneity, to some extent. Yet, even though Unicode seems to account for the great multiplicity of the world's writing systems, it will also contribute to further standardization. A code must be unequivocal, but how will it evolve?

I wonder if the multigraphic and multistandard power of Unicode praised by Coulmas is really so. I elsewhere<sup>53</sup> suggested that, in the light of typographical treatment of Chinese and Korean and despite the sophisticate conversion software, Unicode fails to promote any viable tool which could improve a proper understanding of the visual relevant features of particular scripts.

Hangul, e.g., has a graphic-visual structure on its own, which is not connected whatsoever with the oral: the organization of syllables in bi-dimensional blocks of units useful to identify, at different ranks, words, syllables and phonemes. It has been therefore defined as a *featural script*, but the non-linear arrangement of syllabic structures proved very difficult to solve for Unicode programmers (since the standard was not designed for a competent user, who was supposed to know how to compose syllables from simpler phonetic units). Hence the paradoxical solution: coding *all* potential syllables as pre-composed blocks, providing each with a single code: the programmers composed jamo characters into precomposed Hangul syllables; determined the canonical decomposition of precomposed Hangul syllables; algorithmically determined the names of precomposed Hangul syllables. The digital writer is offered «the complete set of precomposed

<sup>52</sup> FLORIAN COULMAS, *Back to the future. Literacy and the art of writing in the age of cyberspace*, in C. Consani et alii (eds.), *Oralità/scrittura: in memoria di Giorgio Raimondo Cardona*, Atti del IX Congresso dell'Associazione italiana di linguistica applicata, Pescara, 19-20 febbraio 2009, Perugia, Guerra, 2009, pp. 93-113; quotation is on p. 112.

<sup>53</sup> ANTONIO PERRI, *Al di là della tecnologia, la scrittura. Il caso Unicode*, «Annali dell'Università degli Studi Suor Orsola Benincasa», Napoli, vol. II, 2009, pp. 725-748.

modern Hangul syllable blocks *and* the set of conjoining Hangul jamo»<sup>54</sup> (a double coding, indeed, syllables and single alphabetic characters). The quantitative effect of such a choice is astonishing: in modern Korean there are 19 possible initial consonants, 21 vocals and 27 final consonants, there will result an amount of 399 syllabic block formed by two characters and 10.773 by three character – i.e. 11.172 modern syllables all coded by the standard (cfr. fig. 12).

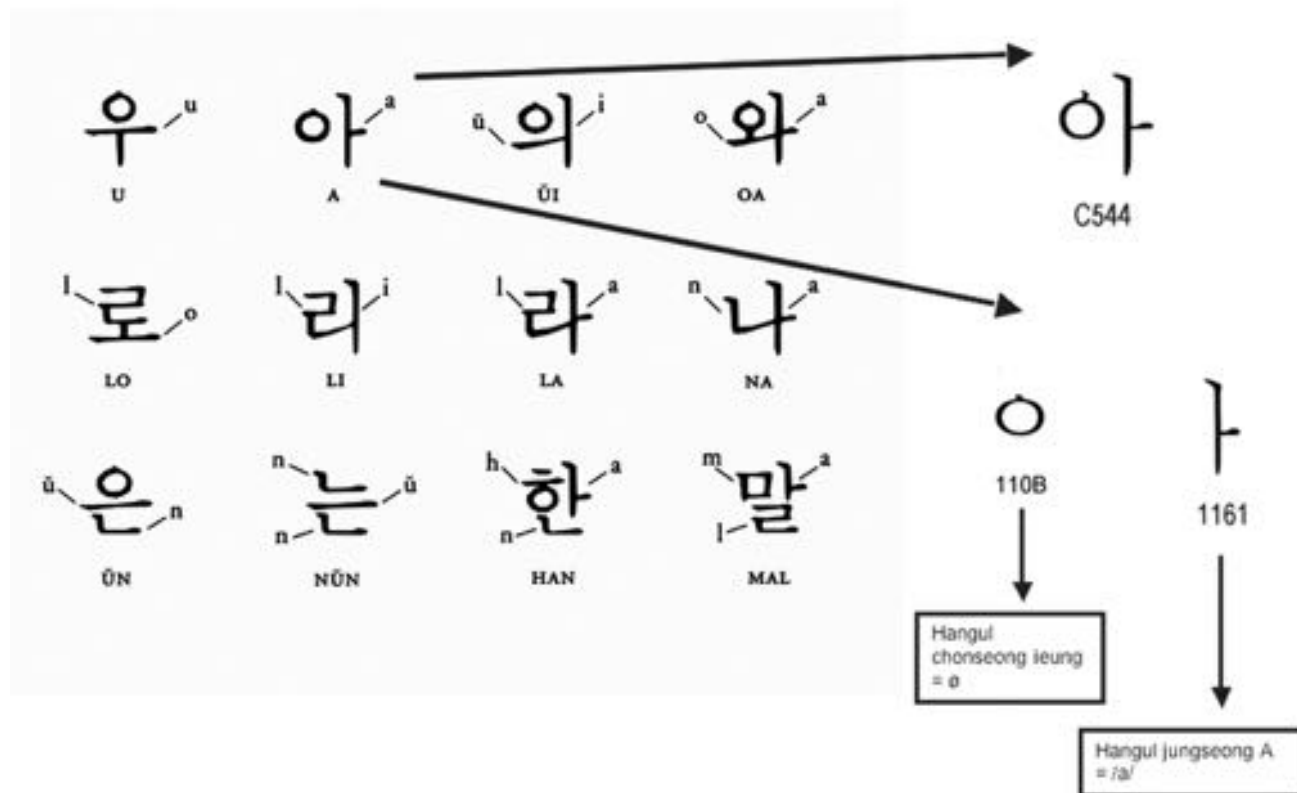


Fig. 12 “Double coding” of syllables and *jamo* (i.e. sub-components of any syllable block) in Unicode treatment of Korean system.

An understanding of the featural structure of every script (which Unicode can't provide) is a prerequisite for reaching metagraphemic awareness, necessary to non-native users who should (and could) be trained to *know* the logic of those systems instead of using them mechanically (i.e. just inserting alphanumerical codes). If we are really witnessing a «multi-layered development», and «electronic communication does not drive world literacy to converge on roman letters» (again to quote Coulmas), the digital divide is still there: people outside western middle-class environment have no access to keyboard writing, as Jan Blommaert aptly reminds us, and they «pride themselves on being able to produce handwritten text in more or less stable orthography and language variety»<sup>55</sup>: see for example the use of an “upper case-only” script, and the English orthographic instability in this short text written (to me) by a young men from Philippines who worked as a daily home help in my house just three years ago (fig. 13). The simple question “can he write?”, of course, could be easily answered ‘yes’; but, to quote Blommaert, it is really a question which needs answers referring «to practices and skills that belong to local, and very divergent, economies of literacy»<sup>56</sup> – even if Robert lived and still lives in Rome.

<sup>54</sup> UNICODE CONSORTIUM, *The Unicode standard 4.0*, Toronto, Addison-Wesley, 2003, p. 314.

<sup>55</sup> BLOMMAERT, *Grassroot literacy*, cit. p. 5.

<sup>56</sup> *Ivi*, p. 4.

IM SORRY ABOUT MY MISTAKES LAST FEW  
 OURS. I DONT LIKE TO HAPPENED BUT ACCIDENT  
 TO BROKE THE LANDSHADE

ROBERT.

Fig. 13 Sample of a *grassroot literacy* short text, written by a young man from Philippine in Italy.

But there is more, since we need to take into account that (according to Thesis 2 before) the scriptorial domain is part and parcel of the broader “domain of images” so vividly and deeply investigated by Elkins<sup>57</sup>, for example. If we still take for granted the standard (but poor and misleading) definition of “pure” orality as ‘all-(and-just)-sounds articulated with the mouth’, thus eliminating the multimodality and multimediality of spoken discourse – such an approach has been convincingly blamed by Ruth Finnegan – we cannot avoid to admit that in the graphic plane such a distinction (in order to exclude not coded, distinctive and discrete features from analysis) is more difficult to achieve: writing has always benefited from its ‘medial contiguity’ with any form of diagram and picture, and Finnegan rightly observes that there are multiple visual dimensions in writing. According to her, we should speak of a continuum not only between types of writing (the systematic mixing and ‘impurity’ stressed by Gelb) but more broadly between most of graphic and pictorial forms of visual communication.

We can thus observe how the creation of visual coded forms alternative to the alphabet (e.g. the standardized icons and symbols of visual design used in directional signals, infographic and so on) often encapsulate true written items not recognized nor interpreted as such. Take for example the icons designed for the new line of underground in México City (the *Linea dorada*), opened to the public less than two years ago. The debate between graphic and visual designers focused on the proportion, style and strokes of single icons, not respectful of the clear and excellent guidelines provided by the American designer Lance Wyman, who in the Sixties first designed the informative signals system for the underground in México City. While admitting that the original function of icons has changed, since during the Sixties it was important providing signals which

fueran entendidos por la la mayoría de la población analfabeta que había a finales de los 60’s del siglo pasado, lo que fue un éxito, [mientras que hoy] la función de los iconos pasó a ser parte de la cultura gráfica que identifica a la Ciudad de México y un agregado distintivo del SCT Metro sobre los demás sistemas de transporte público del mundo<sup>58</sup>,

<sup>57</sup> JAMES ELKINS, *The domain of images*, Ithaca, Cornell University Press, 1999.

<sup>58</sup> GABRIEL RIVERA, *La identidad de la nueva línea 12 del metro en la Ciudad de México*, <http://nicefucking.graphics/la-identidad-de-la-nueva-linea-12-del-metro-en-la-ciudad-de-mexico/> (2012).

very few of the commentators note that a lot of icons are in fact Aztec glyphs expressing nahuatl place names: in the *Línea dorada* this is the case for Mixcoac (fig. 14 a.), Culhuacan, (fig. 14 b.), Tezonco (fig. 14 c.), Tzapotitlan (fig. 14 d.) and Tlahuac (fig. 14 e.)



Fig. 14 Icons of the Mexical *Línea dorada* (left) with their corresponding Aztec pictographic place-name glyphs (right): a. Mixcoac (classical Nahuatl *Xiuhcoac*); b. Culhuacan (classical Nahuatl *Colhuacan*, *Colhuatzinco*); c. Tezonco (classical Nahuatl *Tzompanco*); Zapotitlan (the same as in classical Nahuatl), Tlahuac (classical Nahuatl *Cuiclahuac*).

Even when all this is admitted, such as in the article by Gabriel Rivera I just quoted, no attempt is made to explain why those glyphs *are* an ancient form of writing (which would be the only way to keep them alive in the common awareness of users, since today there is just a 2,1% of illiterate among the population of México City); Rivera therefore rightly observes: «¿Es necesario seguir preservando el ícono? ¿no sería más importante revisar el trazo de la tipografía y su función óptica en movimiento?», pointing out that the *readability* of roman font is really low. However, he thinks that the iconic identity of the underground is still one of its prominent aesthetic features (together with colours of the trains) – «el empleo de íconos es una solución, hoy en día, más estética que funcional» –, and complains that the problem lies in the bilingual nomenclature of place names (Spanish and Nahuatl) while «los glifos prehispánicos guardan mucha similitud entre sí»: in other words, the re-semanticization or recovering of “decontextualized” pictographic traditions makes the reading of those icons a pure mnemonic and synthetic process (i.e. a process based on immediacy and simultaneity, to quote Finnegan, while this habit is still the output of a visual training which focuses and organizes specific features – but I wonder if there will be an improvement in recognition performances through a clear explanation of the (original) “logic” of reading to users/readers. Of course we can subscribe to Rivera’s conclusions:

Se debe crear una cultura de texto legible, crear sistemas visuales que favorezcan el entendimiento, nomenclaturas claras, experimentar como usuario, y que todo en su conjunto sean un sistema de comunicación efectivo en transporte urbano,

while still asking if such a ‘culture of the text’ should necessarily exclude multigraphic references and mixing outside the field of roman script.

I think, in any case, that such a “new culture of the text” should take into account that

at this historical moment, people around the world engage complicated social, political, cultural, and psychological work of learning and using literacies in multiple language and scripts that are enmeshed within other channels or modes of communication and diverse semiotic systems<sup>59</sup>.

We need, accordingly, a new pedagogy built on the plurilingual literacy practices currently prevalent among plurilingual individuals in more and more informal settings.

<sup>59</sup> OFELIA GARCÍA, LOUISE BARTLETT, JOANNE KLEIGFEN, *From biliteracy to pluriliteracies*, in P. Auer, Li Wei (eds.), *Handbook of multilingualism and multilingual communication*, Berlin-New York, Mouton De Gruyter, pp. 207-228.

We should also remember, however, that professional creativity often use hybridity to raise a sort of “postmodern halo” denying *de facto* the potentialities of multigraphism in the broader context of a sterile (but politically correct) multicultural strand: let me quote the case of a new font expressly designed for signposts and public information signs of the Cité Internationale Universitaire here in Paris: the Cité Inter, designed by Ruedi Baur et associés in 2004, more or less ten years ago (fig. 15)<sup>60</sup>.

newut plain	A	B	C	D	E	F	G	H	I
cit� inter a	Λ	β			�	ƒ	g		�
cit� inter b	A	β			�	�	�		�
cit� inter c	大	β			�	�	�		�
cit� inter d	λ	β			�				
cit� inter e	λ								
newut plain	J	K	L	M	N	O	P	Q	R
cit� inter a	�	�		�	�	�	�		�
cit� inter b	�	�		�	�	�	�		
cit� inter c				�	�	�			
cit� inter d				�		�			
cit� inter e				�		�			
newut plain	S	T	U	V	W	X	Y	Z	
cit� inter a	�	�	�		�	�	�		
cit� inter b	�	�			�	�	�		
cit� inter c	�	�			�	�	�		
cit� inter d					�		�		
cit� inter e									

Fig. 15 The font *Cit  Inter* designed by Ruedi Baus et associ s (2004).

To an original roman/latin font, indeed (the Newut Plain) font designers added a large series (60) of additional glyphs with characters taken from scripts of many different cultures in the five continents: but all those glyphs have been selected only in view of their expressive form resembling that of the Latin letter, which they can replace in the signpost through a randomized software. Unlike the case of Sequoyah’s invention, we can argue, this is a case in point where from the ‘hybridation’ will not result in a new system but in a graphic (and misleading) *melting pot*: thus a user/reader not skilled will be induced to think there is a ‘relation’ of some kind between, say, the N of Newut,   of Hebrew,   of Cyrillic and  , sign of the Thai syllabic writing whose value is a dental [th-] followed by an inherent vowel [o]; or he could think that an A “resembles” to the Chinese character for ‘tree’ 木, which is read *mù*. Far from being an useful tool for a didactically valid acquaintance with different and ‘exotic’ script, in my view this is an emblematic example of a deeply ethnocentric practice: the *reductio ad unum* (i.e. to roman script) of an intrinsic writing code diversity.

The uniform nature of expressive (visual) substance allows for systemic and processual dimension often fade one into another: thus, instead of investigating the diachronic stratification in

<sup>60</sup> INTEGRAL RUEDI BAUR ET ASSOCIES, *Cit  Universitaire de Paris*, Paris, Jean-Michel Place, 2004.



any given system, as noted by Gelb, an ethnographic account is made to evaluate the effective role played by different abilities and varieties of script people have in sociolinguistic repertoire<sup>61</sup>. Writers resort to specific *literacy resources* we can in no way define *free from ideological and technical constraints* (to quote the definition of grass-root literacy as series of non-élite forms of writing provided by Johannes Fabian, but rightly criticized by Blommaert).

*Concluding remarks*<sup>62</sup>

Writing codes are constantly influenced by writers competence and cultural knowledge of different scripts. Writing standards are, indeed, more a model of reference than a well rooted competence in writers; their fluency and variation are clearly visible in writing interference among writing codes in multilingual and multicultural assets. As a consequence, all writing codes undergo interference processes when used by bilingual or multilingual societies.

When writing systems overflow in different social and cultural contexts, writers who share common codes must be conceived as communities of practices rather than speakers belonging to single language communities and sharing a single linguistic ideology.

Written signs choice and techniques are always strictly related to symbolic meaning and cultural knowledge of writers; thus, writer identity is constantly underlined and confirmed by the relationship with (potential) reader(s), since he/she will promote and confirm through written practices his/her cultural identity.

While we admit the basic relevance of cultural meaning of writings, we discourage the melting of different codes – such as in some products of *type designing* – where different codes in use are not culturally interrelated and represent a chaotic mixing up of signs belonging to different cultural contexts. Such a kind of writing mixing disfavours mutual understanding between writer and reader.

Finally, we think that natural or induced convergence toward large standardized models of writing (such as Unicode) does not offer any suitable and sustainable reference point for writing practices in an intercultural perspective.

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<sup>61</sup> DELL HYMES, *Ethnography, linguistics, narrative inequality: toward an understanding of voice*, London, Taylor & Francis, 1996.

<sup>62</sup> The following remarks are the conclusions of a paper recently presented in Paris by myself and Barbara Turchetta (TURCHETTA, PERRI, *Teaching the writing codes in contact*, cit.). I therefore owe part of the ideas expressed in those lines to Barbara.