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Of marks and meaning : a palaeographic, semiotic-cognitive, and comparative analysis of the identity marks from Deir el-Medina.

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INTRODUCTION

DEFINING VISUAL COMMUNICATION

WE TEND TO think of communication in terms of speech and writing: speech as the oral expression of language and writing as its graphic expression.¹ This thought can be traced back to ancient Greece, particularly to a statement written by Aristotle around 350 BC:

*'Spoken words are the symbols of mental experience and written words
are the symbols of spoken words'²*

This statement was understood in the sense that spoken signs are the key to language systems, while written signs are merely their representations, serving only to their needs. Even though Aristotle had not meant to say this,³ writing thus came to be considered written speech: spoken language recorded by marks the basic function of which is phonoptic.⁴ Western scholars throughout the Middle Ages and the Early Modern Period held the view of writing as a visible *surrogate* or *substitute* for speech. This view, called 'the surrogational model' by Harris,⁵ was prevailing especially in the 18th and 19th centuries. The French missionary De Brébeuf, for instance, in translating the poem *Pharsalia* by Lucan, spoke of 'cet art ingénieux – de peindre la parole et de parler aux yeux'.⁶ In similar fashion Voltaire's famous quote reads 'l'écriture est la peinture de la voix : plus elle est ressemblante, meilleure elle est.'⁷ The Irish poet Trench in 1855 spoke of 'representing sounds by written signs, of reproducing for the eye that which existed at first only for the ear'; and 'The intention of the written word' is 'to represent to the eye with as much accuracy as possible the spoken word.'⁸ The surrogational view was still popular in much of the 20th century. The historian and assyriologist Gelb defined 'full writing' as the 'written substitute for its spoken counterpart', as a 'vehicle through which exact forms of speech could be recorded in permanent form', and as a 'device for expressing linguistic elements by means of visible marks'.⁹ In his words, 'The original object of writing is the creation of symbols which stand for words of the language.'¹⁰ The linguist Bloomfield stated that 'Writing is not language, but merely a way of recording language by means of visible marks'.¹¹ Last but not least, sinologist DeFrancis wrote that 'all full systems of communication are based on speech. ... no full system is possible unless so grounded'. He even declared that writing was *the only system that could*

¹ Cf. Gelb, *A Study of Writing*, 9; Defoort, *Het woekerende schrift*, 13.

² Aristotle, *On Interpretation*, part I section 1.

³ Harris, *Rethinking Writing*, 23-24 explains that Aristotle's concept of 'symbol' is to be distinguished from the concept of 'representation'. Aristotle did not describe written signs as representations of spoken signs; rather, written and spoken signs are two different and unique, yet complementary systems of signs.

⁴ i.e. serving to represent sound, to make sound visible. Harris, *Rethinking Writing*, xii.

⁵ *Ibid.*, xi-xii, 26-27, 34-37.

⁶ Mentioned by Gelb, *A Study of Writing*, 13 without reference, but see Larousse, *Grand Dictionnaire Universel du XIX^e Siècle*, Tome 2, article 'Brébeuf (Guillaume de)', and Tome 12, article 'Pharsale'.

⁷ Mentioned in Harris, *Rethinking Writing*, xii without reference, but see Voltaire, *Oeuvres complètes* II, article 'Orthographe'. Voltaire wrote this article originally in 1764, but renamed the edition of 1769 *La Raison par Alphabet*. See Mervaud, *Le Dictionnaire philosophique de Voltaire*, 41-42.

⁸ Trench quoted by Harris, *Rethinking Writing*, xii.

⁹ Gelb, *A Study of Writing*, 10-13, 24.

¹⁰ *Ibid.*, 97.

¹¹ Bloomfield, *Language*, 21 (2.1), 282 (17.1).

be used to convey thought in visible form because it records speech, and speech had evolved as the fullest and most efficient means of conveying thought.¹²

The view on writing as graphically recorded speech implied the idea of writing as an evolutionary goal. The 20th century saw a rise of several models of visual communication, which all progressed from rudimentary and primitive pictures toward ever more advanced systems that recorded speech more accurately, culminating in the modern Western alphabet as the most efficient and complete replication of speech.¹³ For instance, the philologist and historian Taylor presented a sequential development of five stages:¹⁴

1. Pictures;
2. Pictorial symbols;
3. Verbal signs;
4. Syllabic signs;
5. Alphabetic signs.

DeFrancis presented a sequence quite similar to this which ranged from pictures via rebus symbols and syllabic systems to alphabetic writing systems. Only the latter were acknowledged as ‘full writing’, while the other stages were designated as ‘partial’, ‘limited’, ‘pseudo-’ or ‘non-writing’.¹⁵ Gelb’s sequence included the phases of ‘No writing’, ‘Forerunners of writing’ and ‘Full writing’. The first stage he called the ‘semasiographic stage ... in which meanings – not words or sounds – are suggested by signs’.¹⁶ This ‘primitive semasiography’ is ‘outside of our normal system of writing’;¹⁷ that is, it is No(t) writing. The subsequent stage of ‘Forerunners’, Gelb argued, consisted of several forms of human intercommunication that served ‘as the basis for the ultimate evolution of writing’.¹⁸ This ultimate evolution, or ‘the most developed form of writing’, was the last stage of full alphabetic writing.¹⁹ Gelb presented these phases in a rigidly linear progression: apparently, there was no way back ‘once man discovered a way of expressing exact forms of speech in written signs’.²⁰ In a similar way, Bloomfield spoke of writing as ‘an outgrowth of drawing’.²¹ The first stage in his sequential model was represented by pictures, which ‘fall short of writing in accuracy, since they bear no fixed relation to linguistic forms’.²² The second stage was represented by conventional and uniform characters, which developed from pictures and which people produce and to which they respond in a certain conventional way. The final stage in Bloomfield’s evolution of writing was represented by symbols, which developed from the characters and were associated with linguistic forms. Only when linguistic value began to predominate, the stage of ‘real writing’ was reached.²³

¹² DeFrancis, *Visible Speech*, 5, 7, 42; also referred to in Boone & Mignolo, *Writing Without Words*, 5-6. Writing certainly is an efficient way to convey thought, but not the fullest and by no means the only system to do so.

¹³ Boone & Mignolo, *Writing Without Words*, 6.

¹⁴ Taylor, quoted in *ibid.*, 6-7.

¹⁵ DeFrancis, *Visible Speech*, 58, 268; King, ‘Visible Speech, Review’, *Language* 67 no. 2 (1991), pp. 377-379.

¹⁶ Gelb, *A Study of Writing*, 15.

¹⁷ *Ibid.*, 13, 15.

¹⁸ *Ibid.*, 36.

¹⁹ *Ibid.*, 15, 24, 36.

²⁰ *Ibid.*, 11. It is argued below that many examples in modern Western societies prove this statement to be incorrect.

²¹ Bloomfield, *Language*, 282 (17.2).

²² *Ibid.*, 283 (17.2).

²³ *Ibid.*, 283-285 (17.2).

The scripts of the ancient world, such as Egyptian hieroglyphic script, the Mesoamerican systems among which Maya hieroglyphic script and the Aztec and Mixtec pictorial systems, the Easter Island Inscriptions, Sumerian and ancient Chinese, were variously interpreted, but were generally placed at the beginning or outside of the evolutionary sequence. Egyptian and Chinese, although not passing the second stage of characters in Bloomfield's thesis, were usually allocated the highest positions. Gelb considered them (together with Sumerian and Hittite) 'fully developed writing systems'; yet, he argued that they were only in their initial word-syllabic stage and, although phonetic, had not yet reached the ultimate level of the alphabet.²⁴ Less developed in his eyes were the Aztec and Maya systems, which he considered 'Forerunners of writing'. While he acknowledged that they contained some level of systematization and convention,²⁵ they were primitive in that they did not represent phonetic systems. He argued that these systems simply could not be phonetic because 'if ... the Aztecs and the Mayas did not succeed in evolving a phonetic system by the sixteenth century in spite of Spanish influence, it is difficult to argue that they had had such a system in pre-Columbian days.'²⁶ This reasoning is representative for Gelb's idea of a strict linear evolution forward, but it turned out to be wrong: some thirty years after Gelb's statement the decipherment of Maya writing had progressed greatly and the system appears to have been a mix of logograms and syllabic signs.²⁷ Certainly, Gelb could not have known that in his time, but it shows that he disposed of the systems he could not understand well in 1963 as primitive and undeveloped, allocating them lower status in his evolutionary model.²⁸ By the time DeFrancis wrote his book *Visible Speech* (1989) more about Maya script was known, and he indeed accepted it as a syllabic system based on language. Yet, other Mesoamerican systems such as Aztec and Mixtec, which were not yet well understood, were still disposed of as non-writing. DeFrancis did not accept their pictures as structured systems of communication, and condemned pictography in general as a 'very restricted type of communication' which was to be 'clearly and categorically dismissed as limited, dead-end means of communication'.²⁹

Clearly, what many scholars felt uncomfortable with were the pictorial elements of ancient systems of visual communication. This feeling most probably came forth from an inability to interpret these elements, as instead of being language-based they followed other modes of expression that were not understood. The pictures were considered drawings comparable to those made by young children, or designs for magical purposes, or expressions related to mythological ideas. Gelb stated that the Easter Island inscriptions, 'on which so much effort has been wasted by so many imaginative minds', were not even writing in the most primitive sense of the word as they probably represented nothing else but 'pictorial concoctions for magical purposes'.³⁰ According to Bloomfield, the Ojibwa, one of

²⁴ Gelb, *A Study of Writing*, 60-88.

²⁵ *Ibid.*, 12, 59.

²⁶ *Ibid.*, 51-57.

²⁷ Coe, *Breaking the Maya Code*, 246-248.

²⁸ This reasoning is also present in his judgment of various African forerunners of writing as against various American Indian forerunners of writing, the latter of which he described as more developed, systematized and standardized, simply because he was less familiar with the African systems (Gelb, *A Study of Writing*, 49). An example which shows that a rigid progression forward to alphabetic script, without there being a way back, is non-existent, is the Ethiopic Ge'ez language, which was written in a script that had evolved as a semi-syllabary out of alphabetic South Arabic script. See Lehmann, '27-30-22-26 – How many letters needs an alphabet?' in De Voogt & Quack (eds.), *The Idea of Writing. Writing Across Borders*, 15.

²⁹ DeFrancis, *Visible Speech*, 45, also referred to in Boone & Mignolo, *Writing Without Words*, 8-9.

³⁰ Gelb, *A Study of Writing*, v, 60-61. For other systems of visual communication given a magical interpretation by Gelb, see pp. 25-26, 36. It is now known that the Easter Island inscriptions were written in the, not yet deciphered, script of the Rapa Nui people. See, for instance, Pozdniakov & Pozdniakov, 'Rapanui Writing and the Rapanui Language', *Forum for Anthropology and Culture* 3 (2006), 89-122.

the largest groups of Northern American Indians, represented the notion of ‘ill omen’ by an owl, in accordance, ‘no doubt, with some tribal belief’.³¹ He continued to state that in situations that do not lend themselves to drawing, we may suppose that the ‘picture-user ... actually spoke to himself and tried out various wordings of the troublesome message’.³² This message was, of course, first and foremost ‘troublesome’ to Bloomfield and not to the ‘picture-user’, who may have known exactly what he was doing in a system of graphic communication that was simply unlike the phonoptic system Western scholars were so intensely focused on.

The evolutionary model of writing had further implications on a social level. Harris notes that the various evolutionary stages were taken as diagnostic indicators of levels of civilizations or mental progress among the peoples of the world.³³ As a prototypical example he quotes Rousseau in *Essai sur l’origine des langues* (1781), who linked pictography to savage peoples, word- and syllabic writing to barbaric peoples, and alphabetic writing to civilized peoples [*peuples policés*].³⁴ At the end of the 19th century this idea was echoed by nota bene the first professor of anthropology in Oxford, Burnett Tylor, who wrote that ‘the invention of writing was the great movement by which mankind rose from barbarism to civilization’.³⁵ In similar manner, in 1949, the linguist Diringer argued that ‘In the growth of the spiritual human advance, that is of civilization, the origin and the development of writing hold a place of supreme importance’.³⁶ In 1989, still, DeFrancis condemned those peoples who made use of pictorial communication as living in ‘culturally limited societies’.³⁷

Alphabetic writing was, and often still is, equated with civilization and associated with literacy. The societies not having reached it are variously designated as ‘illiterate’, ‘non-literate’ or ‘preliterate’. Boone, specialized in Pre-Columbian Mesoamerican art and writing, is right in rejecting all three terms. ‘Illiterate’ has the connotation of ‘uneducated’; ‘non-literate’ implies that a society lacks something, as a result of which its people are culturally deficient; and ‘pre-literate’ carries evolutionary expectations, conveying the sense that alphabetic writing as ultimate achievement and indispensable basis of progress is a universal goal, and that all societies are somewhere along the road to it.³⁸ The societies of the Aztec and Maya are completely thrashed by Gelb, who described them as primitive without any cultural *tour de force* in analogy to their undeveloped inscriptions. A fully developed culture could only be reached through a fully developed alphabetic writing system.³⁹ This idea is still central in a recent movement within communication theory called the Alphabet Effect, which promotes the hypothesis that alphabetic scripts have encouraged and developed several cognitive skills such as abstraction, analysis, classification, coding and decoding.⁴⁰ The term

³¹ Bloomfield, *Language*, 284 (17.2); my emphasis.

³² *Ibid.*, 284-285 (17.2).

³³ Harris, *Rethinking Writing*, 1.

³⁴ *Ibid.*, 2, quoted from Rousseau, *Essay on the Origin of Languages*, 17.

³⁵ Harris, *Rethinking Writing*, 4, quoted from Burnett Tylor, *Anthropology*, chapter 8.

³⁶ Diringer, quoted in Harris, *Rethinking Writing*, 5.

³⁷ DeFrancis, *Visible Speech*, 47, 57. In anticipation of what follows, we may remark here that DeFrancis probably did not realize that every person in the modern Western world makes use of pictorial communication every day, be it in the form of traffic signs, pictograms in public buildings, pictures on food packages, laundry labels in garments, and so forth.

³⁸ Boone & Mignolo, *Writing Without Words*, 4; Harris, *Rethinking Writing*, 7, 15.

³⁹ Gelb, *A Study of Writing*, 57-58.

⁴⁰ Yet, to my knowledge this hypothesis was not compared to cognitive skills acquainted on the basis of non-alphabetic scripts. Since all visual communication is cognitively processed, it would be wrong to argue that cognitive skills are only encouraged by the alphabet. For more information on the cognitive and neurological processing of visual communication, see Part II, chapter 3.

‘Alphabet Effect’ was coined by the media ecologist Logan, who on the basis of this hypothesis claimed among others that China has a lack of theoretical science due to the non-alphabetic nature of Chinese writing.⁴¹

How did we come to focus so strongly on the alphabet? Why is it that we only consider someone literate if he or she has learnt to read and write on the basis of a modern Western alphabetic system? Why do many European languages still denote illiterate persons as *analphabète* (French), *analfabeet* (Dutch), *Analphabet* (German), *analfabeter* (Danish), or *analfabéta* (Hungarian), equating lack of knowledge of the alphabet with illiteracy in general?

At least two socio-economic processes stood at the basis of the development that made the alphabet our primary standard. First, the late 19th century saw the rise of many evolutionary models, which were being pursued throughout the natural and social sciences in the light of scientific positivism.⁴² A famous example is, of course, the theory of evolution by Darwin (1859). Many such models had a strong bias toward European norms and values. The evolutionary models of writing fitted right in. Second, the change from agrarian to industrial societies in many Western nations and the progression of democratization, leading to economic and political modernizations at the turn of the 19th and 20th centuries, made knowledge of reading and writing a necessary means to participate in society. In Britain it was Disraeli who implemented the Education Act in 1876, which stated that ‘It shall be the duty of the parent of every child to cause such child to receive efficient elementary instruction in reading, writing, and arithmetic.’⁴³ In the Low Countries the first compulsory education law dates to 1900, although before that time 85 to 90% of the children was already attending school. By the middle of the 20th century it had become impossible to participate successfully in society without the ability to read and write.⁴⁴ As such, the progression of society as well as the progression of any member in society were related to knowledge of reading and writing in the system used in the West, the alphabet.

The association of writing with spoken language and the perceived superiority of the alphabet in relation to other forms of communication, has moved us away from recognizing alternative forms of recording and interpreting complex human knowledge. Fortunately, in recent years more people have become aware of the fact that the alphabet is by no means ‘the only system that can be used to convey thought in visible form.’⁴⁵ There are many more visual systems of recording and communicating information, and evidence against a linear evolutionary development of writing is not difficult to find. One need only think of brand marks, traffic signs, pictograms to communicate warnings or to identify locations, emoticons, maps and diagrams, scientific and musical notation, religious symbolism, and emblems of tribes, clans or families such as coats of arms to understand that, in the words of Mignolo, ‘the history of writing is not an evolutionary process driving toward the alphabet, but rather a series of

⁴¹ Logan, mentioned in Harris, *Rethinking Writing*, 14.

⁴² Boone & Mignolo, *Writing Without Words*, 6.

⁴³ Elementary Education Act 1876, chapter 79 article 4. To be found online:

<http://www.educationengland.org.uk/documents/acts/1876-elem-educ-act.html>.

⁴⁴ Personal communication with Bob Schoemaker, PhD candidate at Leiden University pursuing research on the history of Dutch education. I would like to thank him for sharing his thoughts with me so elaborately and for providing me with literature on the topic.

⁴⁵ Cf. above, pp. ix-x with note 12.

co-evolutionary processes⁴⁶ in which different communication systems follow their own transformations. These other systems may not be writing in the traditional sense: they may not be alphabetic, not even language-based. Yet, they replace and complement language-based writing all around us. They co-exist with the alphabet – that is, are not a previous underdeveloped stage of it – and may convey information in a different, more efficient, organized or universal way – that is, not in a more primitive way. The fact that ‘different’ or ‘other’ does not mean ‘less’ is a lesson which humanity in general seems to find hard to learn.

A mentality change that includes a rising appreciation for non-alphabetic forms of visual communication as well as a rejection of the evolutionary models has set in. Thus far, it has resulted in roughly two new approaches to writing. Proponents of the first approach plead a broadening of the traditional definition of ‘writing’. Their theory is sometimes called ‘writing integrationally defined’. Proponents of the second approach rather plead a broadening of the context in which writing and other visual systems of communication must be allocated specific places and functions. What does this entail for the new age of communication theory?

‘Writing integrationally defined’

The idea to broaden the traditional definition of writing is in fact not new. A very early suggestion to include under writing not only linguistic but also other forms of visual communication is found already in the work of the ethnologist Haberlandt. In 1898 he stated that the strongest support for science is the art of writing, which, in its widest meaning, is to be found amongst every tribe on earth.⁴⁷ No human collective can be labeled nonliterate because ‘Jedes Bildzeichen ist in gewissem Sinne ... ein Schriftelement.’⁴⁸ Haberlandt argued that the sequencing and regulation of marks provides the basis for writing regardless of the linguistic or nonlinguistic character of the representations.

In a sense, it may even be argued that a broad interpretation of writing is also already present in the work of Gelb: in chapter one of *A Study of Writing* he acknowledged that the restricted definition of writing as the visible equivalent of speech is deficient. He argued that ‘writing in the widest sense’ only loosely expressed language in its early stages.⁴⁹ Gelb disagreed with linguists who dismissed the stages in which writing did not serve the purpose of recording speech as ‘feeble attempts in the direction of writing, but not real writing’.⁵⁰ Yet, Gelb’s terminology is ambiguous and a return to the traditional narrow definition of writing is implicit in his description of the evolutionary stages: the designations of the first two stages, ‘No Writing’ and ‘Forerunners of Writing’, suggest that only the third stage, ‘Full Writing’ with alphabet as the ideal, was writing in the true sense. Gelb’s work is permeated with the idea that true writing conveys linguistic forms, and every mark that does not convey linguistic information belongs to a primitive stage. He emphasized a yawning gap between ‘what the primitives understood as writing’ and ‘writing as we normally understand it’.⁵¹ That gap, he

⁴⁶ Mignolo in Boone & Mignolo, *Writing Without Words*, 13.

⁴⁷ Haberlandt, *Völkerkunde*, 102.

⁴⁸ *Ibid.*

⁴⁹ Gelb, *A Study of Writing*, 10-11 (quote from p. 10).

⁵⁰ *Ibid.*, 12.

⁵¹ *Ibid.*, 6, 12; my emphasis.

argued, was caused by a ‘great human achievement’, ‘an important and decisive step which entirely revolutionized’ the further progress of writing; that is, phonetization.⁵²

Five years later Derrida condemned this idea that he called ‘phonologism’ or ‘logocentrism’: the view of science that establishes an opposition between speech and writing and which prefers *logos* (the ‘word’ or ‘act of speech’) over writing.⁵³ In fact, he stated that the concept of writing comprehends spoken language, and exceeds it; ‘If writing is no longer understood in the narrow sense of linear and phonetic notation, it should be possible to say that all societies ... practice writing in general.’⁵⁴ Derrida argued that no reality or concept could correspond to the expression ‘society without writing’; that expression is merely ‘dependent on ethnocentric oneirism, upon the vulgar, that is to say ethnocentric misconception of writing’.⁵⁵ When we speak about ‘peoples without writing’, this means nothing more than that they do not make use of what *we* are used to call writing. Derrida did not consider speech superior and argued that outside the domain of language, in everything that we observe in this world, there is writing in the broadest sense one can think of. Writing, for Derrida, was omnipresent.⁵⁶

Most recently the need for a broader definition of ‘writing’ has been expressed both in Europe and America with respect to such diverse systems as modern brand marks and Pre-Columbian Mesoamerican systems of visual communication. In the field of Mesoamerica a scholarly dichotomy seems to exist. Those specialists working with Mayan texts tend to follow a traditional idea of writing as recorded speech in that they include the Maya hieroglyphic system in the definition of writing, but exclude the pictorial Aztec and Mixtec manuscripts.⁵⁷ Aztec and Mixtec specialists, on the other hand, clearly do consider these pictorial systems to be written communication. Boone is one of them. She argues that, while phonetic elements play a minor role, the manuscripts are largely *pictographic expressions of language* that convey meaning according to conventions and structures not necessarily related to speech.⁵⁸ Phonoptic expression is not the only form of language expression, speech is not necessarily the point of departure, and linguistic syntactical structure is not the only meaningful pattern to convey information. The traditional definition of writing, which only explains part of the Mesoamerican systems of communication, should be broadened to include those other graphic forms of expression. Boone pleads for a complete graphic catalogue so that we can ‘think more broadly about visual and tactile systems of recording information’ to reach a more encompassing definition of writing, which at least is needed for the analysis of the Mesoamerican systems.⁵⁹

In the field of modern brand marketing it is especially Perrin who propagates the idea that what linguistics has labeled ‘writing proper’ is ethnocentric, even anthropocentric.⁶⁰ He states not only that marks such as brand marks should be considered nonlinguistic forms of writing, but also that such nonlinguistic writing systems should be interpreted in a broader biological framework: leaving marks is not merely a human phenomenon, but one that is common to all species. It is a universal practice, a

⁵² Gelb, *A Study of Writing*, 11-12.

⁵³ Derrida, *Of Grammatology*, 3, 97-103.

⁵⁴ *Ibid.*, 6-9.

⁵⁵ *Ibid.*, 19-110.

⁵⁶ Defoort, *Het woekerende schrift*, 43.

⁵⁷ E.g. Coe in *Breaking the Maya Code*. Boone & Mignolo, *Writing Without Words*, 5, 13.

⁵⁸ *Ibid.*, 5-6, referring to Smith and her study of Mixtec documents in *Picture Writing from Ancient Southern Mexico*.

⁵⁹ Boone & Mignolo, *Writing Without Words*, 3-4, 13-14.

⁶⁰ Perrin, ‘Marks’, *Elsevier Language Sciences* 33 (2011), 632; Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 92-93; Perrin, Evans Pim & Yatsenko, ‘Mark Studies’ in *ibid.* (eds.), *Traditional Marking Systems*, 14-15.

form of interspecific communication⁶¹ that finds its origin in leaving environmental, territorial and resource marks related to survival: marking danger, fecundity, territory or food sources, and so forth. Writing defined in such a broad frame should, then, also include animal tracks and traces, for instance in the form of footprints or scents; all to be interpreted in a biological and environmental context.⁶²

Thus, the theory of ‘writing integrationally defined’ concerns the application of the term ‘writing’ to various kinds of linguistic and nonlinguistic forms of visual communication, even understood in terms of human and non-human communication. Proponents warn against the dominance of linguistic writing; ‘writing’ is rather made an umbrella term for every form of sign-making. But how to conceive of this theory in a terminological and categorical sense? Despite being called ‘writing integrationally defined’, does the theory define writing at all? To argue that the term ‘writing’ should cover more than merely alphabetic writing is easy, but it leaves the problem of this ‘more’. When the meaning of the term is extended, it becomes applicable to an enormous amount of signs and systems that differ considerably in nature and structure. The result is a vast nebula that encompasses all sorts of visual communication systems, which float around freely without being defined *per se* or in relation to one another. If both animal tracks and Egyptian hieroglyphics are argued to be ‘writing’, how, then, are the differences defined, and how are they both defined in relation to alphabetic writing? The question remains what writing entails precisely.

This problem did not remain unnoticed and scholars such as Boone and Perrin do in fact plead for the recognition of differences among the systems that are ‘integrally defined’. There have been attempts to internally organize the vast superordinate category that ‘writing’ inevitably becomes. Harris, for instance, proposed a broad and inclusive framework of writing that includes all kinds of human activity, but he propagated for a distinction between alphabetic, or ‘glottic’ writing in his terms on the one hand, and ‘non glottic’ writing on the other, as well as for further sub-categorizations in both distinctions. In addition to alphabetic writing, he acknowledged all sorts of notations (musical, mathematical), tokens and emblems as different systems of writing in their own right. Musical and mathematical notation are not linguistic, but they do require an understanding of the structural principles upon which the notations are based – principles of writing that differ from those of glottic writing.⁶³ Most recently, Boone has equally suggested an internal organization, distinguishing two principal kinds of writing (fig. 0-1):⁶⁴

1. Glottographic systems of writing (Harris’ glottic writing). These are basically systems that have traditionally been considered writing. They are based on speech and linguistic syntax;
2. Semasiographic systems of writing. These systems consist of signs that communicate meaning directly and independently of spoken language through pictorial value. Semasiographic systems have the same status as glottographic systems, but they differ in nature and structure: whereas the latter are lexical, semasiographic systems convey meaning according to other internal structures and conventions.

⁶¹ i.e. a form of communication that is not characteristic to only one species, but that is shared among different species.

⁶² While indeed the practice of leaving marks and messages is an interspecific phenomenon we will in this dissertation not touch upon the biological origin or zoosemiotic nature of mark making in detail. We are mainly interested in the processes that create and convey meaning specifically *by the human mind*, as well as in the relation between nonlinguistic marks and linguistic writing as systems *used and interpreted by the human mind*. For animal tracks and traces as sources of inspiration for human linguistic writing, see Part II, chapter 2, section 2.

⁶³ Harris, *Rethinking Writing*, viii-ix; *ibid.*, *Signs of Writing*.

⁶⁴ Boone & Mignolo, *Writing Without Words*, 13-17.

The semasiographic systems are further divided into conventional and iconic systems.⁶⁵ To conventional semasiographic systems are allocated those systems that make use of conventional symbols, which are comparable to the conventional symbols of glottographic writing except that they are not based on speech. Examples are scientific, musical and choreographic notations. To iconic semasiographic systems are allocated all systems with signs that display a natural relation between their form and that to which they refer; that is, iconic semasiographic signs display a relation of natural resemblance with that to which they refer. Boone mentions the examples of traffic signs, signs for travelers in the airport, and cleaning instructions in garments,⁶⁶ which show in picture what they mean.

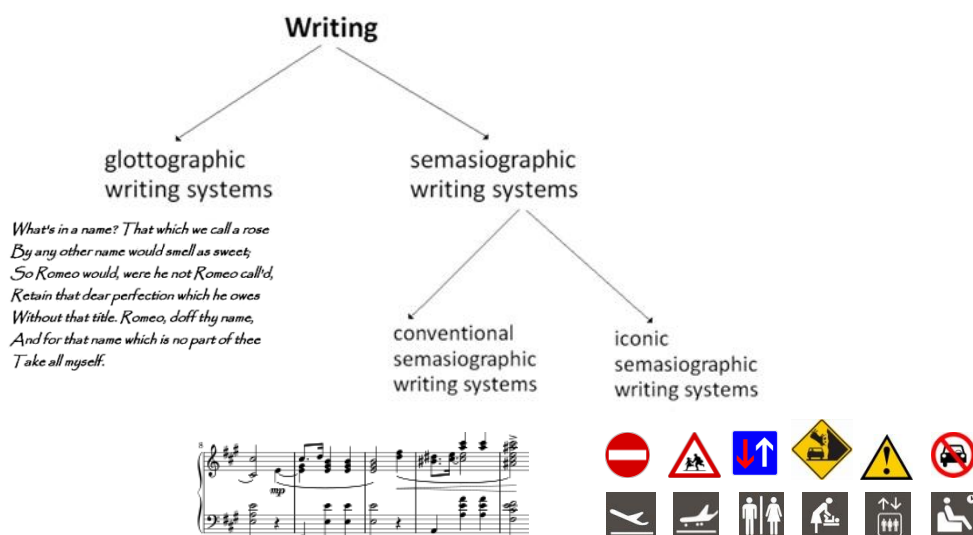






Fig. 0-1 An attempt to internally organize the superordinate category that writing inevitably becomes in the approach of 'writing integrally defined'. Based on Boone & Mignolo, *Writing Without Words*, 13-17.

Boone notes that the distinction between conventional and iconic semasiographic systems is blurred: iconic signs usually involve conventional elements and iconic elements occur in conventional notations. Traffic signs, for instance, combine iconic semasiographic pictures of vehicles or human beings with conventional semasiographic shapes and colors: the red circle and diagonal line indicate a prohibition in , and the yellow lozenge signals caution, for instance in a sign that specifically warns against falling cows . But not only the distinction between conventional and iconic pictures is blurred; the distinction between glottographic and semasiographic systems is already blurred. What about the word 'stop' in the red hexagon of , or the inclusion of the letter P above the picture of person in wheelchair in ? From the point of view of glottographic systems, no linguistic text can be argued to be pure glottic writing;⁶⁷ even if this Introduction, for instance, would not contain figures and images inserted in the text, it would still make use of a specific format, lay-out and punctuation marks, which are conventional semasiographic systems in that they do not represent sounds of speech.

⁶⁵ Boone & Mignolo, *Writing Without Words*, 16.

⁶⁶ *Ibid.*.

⁶⁷ An idea already put forward by Derrida, *Of Grammatology*, 45-65.

Thus, the schema of fig. 0-1 in fact turns out to be better represented as in fig. 0-2 below. It does not solve the problem of defining the nature of writing in a broad sense. We are still left with a nebula in which now terms such as ‘glottographic’, ‘semasiographic’, ‘conventional’ and ‘iconic’ seem to float around freely. The distinctions between these terms are merely terminological; they do not reflect the reality in which the relation between different systems of visual communication appears to be more fluent. In fact, writing in a broad sense subdivided into glottographic and semasiographic systems leads straight back to Gelb and what has come to be called the word–image dichotomy. Considered as such, the approach of ‘writing integrationally defined’ leaves intact the traditional distinction between language-based systems on the one hand, and nonverbal and nonlinguistic systems on the other, merely applying the term ‘writing’ to all.

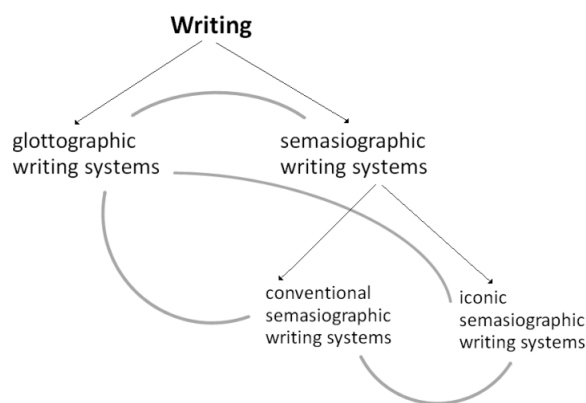


Fig. 0-2 The distinctions between glottographic and semasiographic, and conventional and iconic is not as straightforward as fig. 0-1 visualized it.

In sum, the theory of writing integrationally defined was a reaction against the traditional perspective on writing, arguing that not all writing is based on spoken language and that ‘writing’ as a broad concept in fact entails a variety of systems of visual communication. Yet, instead of distinguishing between glottic and nonglottic writing, alphabetic writing and other sorts of writing designated by means of terms such as ‘pictorial’, ‘iconic’, or ‘semasiographic’, is there another way in which we can analyze the differences between systems without ignoring the fluency between categories?

Allocating writing a place within broader context

There is a theory that bypasses the traditional word–image dichotomy in its attempt to define not only writing, but visual communication in general. The theory is proposed by the art historian Elkins in his book *The Domain of Images* (2001). It departs from the assumption that the ‘dialectic opposition and evolutionistic continuum between picture and script is a flawed premise’.⁶⁸ In fact, any system of visual communication is a mixed system. Instead of struggling with linguistic text, or writing in the traditional sense, on one end of the line and pictorial elements on the other, Elkins acknowledges that neither text nor any image is ‘pure’: they both make use of linguistic and nonlinguistic elements, and simultaneously mix letters, pictorial elements, punctuation marks, colors, shapes, formats, and so forth. There is no such thing as a purely pictorial image, or a page of writing uncontaminated by

⁶⁸ Elkins, discussed in Jackson, *Moche Art and Visual Culture in Ancient Peru*, 85.

elements of non-writing.⁶⁹ Although Elkins decides to follow the traditional idea of writing being a representation of speech,⁷⁰ he reduces it to merely one of three *compositional domains* from which any system of visual communication can draw. The other two domains are Picture and Notation. Together, the three domains are presented in a Venn-diagram as shown in fig. 0-3 below. Each of the domains is a source of inspiration. Every system of visual communication is a unique composition, in which one or two domains may be dominant, for instance Writing in alphabetic scripts and Picture in traffic signs. No system, however, is pure Writing, pure Picture or pure Notation.⁷¹

Venn-diagram of Visual Communication

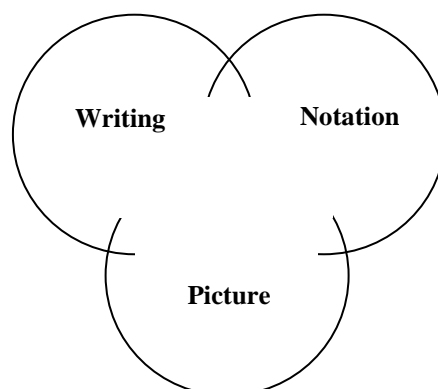


Fig. 0-3 Venn-diagram of visual communication, which visually summarizes the theory that every system of communication is composed of elements that derive from three domains: Writing, Picture, Notation. Elkins, *The Domain of Images*, 85-86.

The Venn-diagram is basically an intersection of three circles that creates four overlapping areas (three in between the domains and one in the middle). We have, however, decided to delete the inner lines of the circles in order to show that the domains are not rigidly separated: they are open and flow into each other. The domains can be described as follows:

Writing The domain of Writing contains elements that are traditionally considered writing. Such elements include phonoptic symbols, an internal ordering according to linear sequence (in lines or columns), and syntax governed by linguistic patterning.⁷² Any system, ancient or modern, in which one or more of these elements are discerned, makes use of the domain of Writing.

Picture To the domain of Picture Elkins assigns on the one hand allographic forms of Writing, and on the other all sorts of pictures that have a natural or iconic resemblance to what they denote. The term allography is used to refer to formal changes that can be made to signs of writing without affecting their linguistic value. It concerns among others palaeographic and cursive shapes, calligraphic forms and fonts of printed letters.

⁶⁹ '[...] there is 'reading' in every image and 'looking' in every text.' Elkins, *The Domain of Images*, 84 (quote), 91. For this idea, see also already Coe, *Breaking the Maya Code*, 18, 25-27.

⁷⁰ He decides to do this also because the traditional concept of writing is 'too ingrained to be abandoned or easily critiqued'. Elkins, *The Domain of Images*, 84.

⁷¹ *Ibid.*, 89-91 and Part II.

⁷² Marcus, referred to in Jackson, *Moche Art and Visual Culture in Ancient Peru*, 84.

While both pictures and allographic forms are assigned to the domain of Picture, the latter thus have a closer relation to the domain of Writing.⁷³

Notation In the domain of Notation we find essentially abstract and geometric configurations that are neither called ‘writing’ nor ‘picture’. They include formats, maps, diagrams, charts and schemas. They neither convey meaning on the basis of speech, according to linguistic syntax, or on the basis of a resemblance to what they denote; nor do they show linear sequential sequence. Rather, their meaning is based on rules that revolve around other formalized spatial arrangements and visual ordering devices such as grids or axes.⁷⁴

In Part II of *The Domain of Images* Elkins discusses several systems of visual communication in terms of the three domains, from closest to pure Writing, to closest to pure Picture, to closest to pure Notation.⁷⁵ Thus:

- Closest to pure Writing we find alphabetic scripts, although a closer look reveals that these scripts contain many elements that belong to the other two domains. To the Pictorial domain belong the font that is used for printing (which may evoke times long past), or calligraphic forms such as presented in fig. 0-4, but also already the nature of the shapes of alphabetic letters themselves; fig. 0-5 shows that they still display some resemblance to their pictorial origin.⁷⁶ To the domain of Notation belong formats or diagrams included in the text such as the Venn-diagram of fig. 0-3 above.

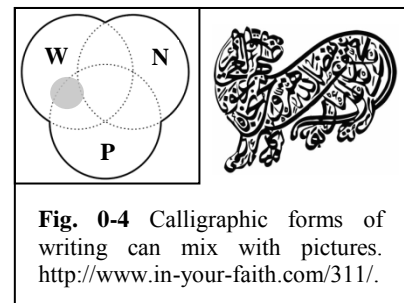


Fig. 0-4 Calligraphic forms of writing can mix with pictures. <http://www.in-your-faith.com/311/>.

- The domain of Writing loses some of its dominance to the domain of Picture in the case of Egyptian hieroglyphic script. This script draws from Writing in that it makes use of signs with phonoptic function, linear sequence and linguistic syntax, but it simultaneously draws from Picture in that its signs may also convey pictorial information. In being signs of a sound and picture script, Egyptian hieroglyphs move fluently from the domain of Writing to the domain of Picture and back. The same can be said of other sound and picture scripts, such as Hittite and Maya hieroglyphic script, as well as ancient Chinese, Assyrian and Phoenician.⁷⁷ The domain of Notation is found in Egyptian hieroglyphic script as well, particularly in temple inscriptions, the contents of which can be related to the

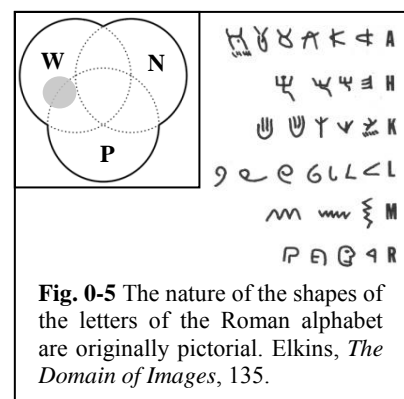


Fig. 0-5 The nature of the shapes of the letters of the Roman alphabet are originally pictorial. Elkins, *The Domain of Images*, 135.

⁷³ Elkins, *The Domain of Images*, 88-91 and 95-119.

⁷⁴ *Ibid.*, 89-91; Elkins in Jackson, *Moche Art and Visual Culture in Ancient Peru*, 86. Elkins was not the first to suggest the tripartition of Writing, Picture and Notation. In 1986 the historian Drake already wrote that ‘The pictures we form in science may be ordinary grammatical statements or they may be special notation systems or they may be quite literally pictures drawn to represent structural relations among external objects, actual or hypothetical.’ Drake quoted in Boone & Mignolo, *Writing Without Words*, 10.

⁷⁵ Elkins, *The Domain of Images*, 89 and Part II.

⁷⁶ *Ibid.*, 89, 95-109 and Plate 8.8 (p. 135).

architectural lay-out of the rooms and placement on the walls: the spatial arrangement of the inscriptions in the architectural space is a meaningful element that cannot be ascribed to ‘Writing’ or ‘Picture’, but is an element of Notation.

- Further removed from Writing and toward both Picture and Notation Elkins places those systems that tend ‘to become more clearly pictorial’.⁷⁸ Instead of following this description, we would rather like to explain it by saying that such systems are ‘open’ in that they do not make use of a standard repertoire of fixed signs. Variation in signs is possible and new forms can be added if necessary. Also, the signs may, but do not have to be in linear sequence. Among the examples given by Elkins we find the following. Aztec and Mixtec manuscripts are

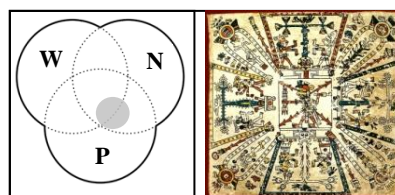


Fig. 0-6 Page 1 of the Aztec Fëjévary Codex, displaying the cosmological creation in map-form. Boone & Urton, *Their Way of Writing*, 200.

composed of pictorial scenes in maps or registers. They may use phonoptic signs of writing, yet they only occasionally include them as captions to the scenes that narrate important events in a manner comparable to comic strips. A famous example of such a narration is presented in fig. 0-6.⁷⁹

Comparable to such manuscripts are Egyptian predynastic palettes, the most famous example of which is the Narmer Palette. This palette is further removed from the domain of Writing than later Egyptian inscriptions, and it is closer to the domains of Picture and Notation in that, instead of displaying a standard repertoire of signs in linear sequence, it shows pictorial variety in scenes and registers that visually narrate Narmer’s victory over the north.⁸⁰ A third example given by Elkins are marking systems such as brand and potmarks.⁸¹ The marks may include signs of writing, but also pictures and geometric elements (fig. 0-7). Linear sequence or linguistic syntax may be involved, for instance in reading ‘NutriWareness’ in fig. 0-7,⁸² but such elements of Writing can be mixed with geometric (✓) or pictorial elements, or may be included in other forms of spatial arrangement.



Fig. 0-7 Brand marks make use of signs of writing in linear sequence patterned on linguistic syntax, but also of pictures and geometric symbols. They are generally structured according to nonlinguistic spatial arrangements.

⁷⁷ Elkins, *The Domain of Images*, 90, 120-134. Elkins designates these systems as ‘semasiographic systems’. I choose to reject that term on the basis of its traditional use in setting such systems apart from glottographic writing.

⁷⁸ *Ibid.*, 90.

⁷⁹ *Ibid.*. See also Marcus mentioned in Jackson, *Moche Art and Visual Culture in Ancient Peru*, 84.

⁸⁰ Elkins, *The Domain of Images*, 170-173. See also Goldwasser, *From Icon to Metaphor*, 11-16, discussed in this dissertation in Part II, chapter 2, section 1.d.

⁸¹ Elkins, *The Domain of Images*, 90.

⁸² A company that gives advice in nourishment (rights: M.M.G. van der Moezel).

- Continuing further toward Picture and Notation, leaving Writing behind, Elkins sees systems that ‘distribute what signs they have over a surface without comprehensible formatting’.⁸³ We do not agree with this description, because systems of visual communication may show an ordering of signs that is not clear *to us*, while their producers may have worked according to formats that were comprehensible *to them*. What Elkins appears to say is that these systems no longer show the linguistic linear sequence in lines or columns with which we are familiar, or that interpretation of the signs according to familiar linguistic sequence does not seem to make sense. Among his examples are Egyptian cryptomorphic scarabs and rock art.⁸⁴ The former, he says, may show clear signs that are well distinguishable, and that may even resemble signs of Writing. Yet, they only present a vague sense of Writing as any interpretation on the basis of linguistic signs and sequence fails. It seems that what counts is merely the impression of a written order,⁸⁵ perhaps to ensure the fortune or magical purpose for which many such scarabs were intended,⁸⁶ but in fact their signs are randomly distributed and do not reflect knowledge of Writing. In prehistoric rock art we do not even distinguish any sense of Writing, and we must search for other spatial organization and other forms of syntax that may exist between the pictorial and geometric signs (fig. 0-8). Rock art is therefore located even further toward the domain of Notation.⁸⁷

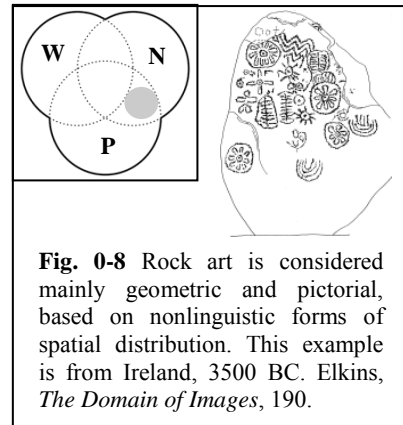


Fig. 0-8 Rock art is considered mainly geometric and pictorial, based on nonlinguistic forms of spatial distribution. This example is from Ireland, 3500 BC. Elkins, *The Domain of Images*, 190.

- Closest to pure Notation are what Elkins calls schemata: geometric configurations such as engineering maps, diagrams, graphs, charts and schemas that are almost exclusively based on reference lines, curves, scales, grids, nets or other geometric principles of ordering.⁸⁸ An example is presented in fig. 0-9. Certainly, they may include pictures or signs of Writing, but these only make sense within the overall geometric structure. Schemata make structural relations, which are very cumbersome to describe in words, perceptible at a glance.⁸⁹ They describe, interpret and communicate complex phenomena. They ‘envision information’,⁹⁰ making ‘the invisible visible’⁹¹ so that information can be grasped with ease and precision. Schematic forms of visual communication are primarily used in the physical sciences, chemistry and mathematics.

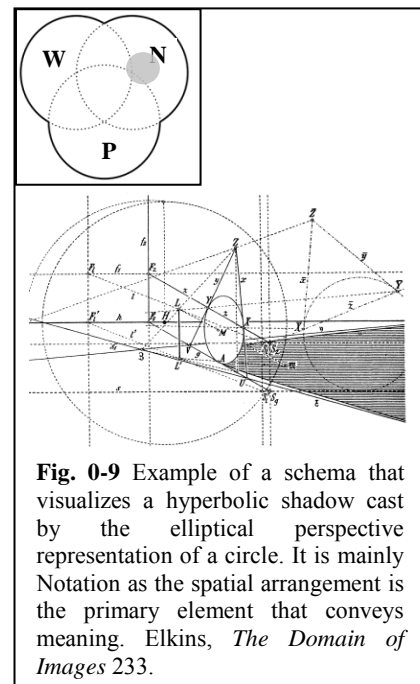


Fig. 0-9 Example of a schema that visualizes a hyperbolic shadow cast by the elliptical perspective representation of a circle. It is mainly Notation as the spatial arrangement is the primary element that conveys meaning. Elkins, *The Domain of Images* 233.

⁸³ Elkins, *The Domain of Images*, 90.

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*, 164.

⁸⁶ Ben-Tor, ‘Pseudo Hieroglyphs’ in Andrassy et al. (eds.), *Non-Textual Marking Systems*, 83-89.

⁸⁷ Elkins, *The Domain of Images*, 181-194.

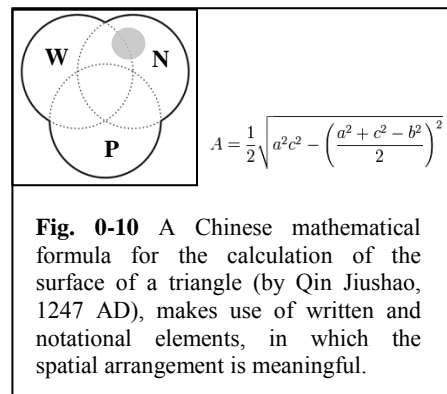
⁸⁸ *Ibid.*, 91, 213-235.

⁸⁹ Drake quoted in Boone & Mignolo, *Writing Without Words*, 10.

⁹⁰ Tufte quoted in *ibid.*

⁹¹ Owen quoted in *ibid.*

- When, however, these sciences make use of formulas such as presented in fig. 0-10, the influence of the domain of Notation decreases somewhat and the influence of the domain of Writing increases. The domain of Notation is still important as it supplies geometric symbols among which numerals, and significant forms of nonlinguistic spatial interaction (a^2 , for instance, means something quite different from 2^a , $a/2$ or $2/a$),⁹² yet, the formulas also include a great number of signs of Writing and they are overall to be ‘read’ and understood in linear sequence.⁹³ As such, the circle is complete and we are back at the domain of Writing.



The model and its underlying theory are not perfect for the analysis of visual communication as a universal phenomenon. A fundamental problem is that the definitions of Writing, Notation and Picture are not clearly outlined. As a result, similar elements may be interpreted by some as Picture, by others as Notation, and by still others as Writing. An example is the interpretation of mathematical formulas just mentioned. The philosopher Goodman, from whom Elkins adopted the term ‘notation’, argued that these formulas comprise notation, while Elkins himself considered them to be more pictorial than notational. He says that ‘Mathematics is replete with typographical morphemes that have the feeling of pictures, such as Π , Φ , \pm , \div , \geq ...’.⁹⁴ One could also consider to interpret the first two forms, Π and Φ , as signs of (Greek) Writing, and the latter three as geometric symbols of Notation. What is Writing, what is Picture, and what is Notation? Are signs that formally resemble written characters, but that are used in different functions (such as Π and Φ) counted as Writing? Are geometric symbols per definition Notation? Are numbers mathematical notational constructs even though they have sound-patterns that represent language (‘one, two, three’; ‘uno, duo, tre’)?⁹⁵ Where would we accommodate punctuation marks in the Venn-diagram: under Writing because they are part of the linguistic structure; or under Notation because they have themselves no phonetic value, are (and have always been, cf. fig. 0-5) geometric in form, and only cooperate with Writing as a Notation structuring a text?

If such questions are already problematic in modern Western systems of visual communication, they are even more so with respect to ancient systems. A reason for Elkins to accommodate Egyptian cryptomorphic scarabs and rock art somewhere near the domains of Picture and Notation is, in fact, simply that we do not understand them. We are not familiar with their signs or ordering principles. Are those forms that resemble signs of writing on the scarabs, of which we do not know to what extent their producers and owners considered them to have phonetic value, belong to the domain of Writing or not? And how can we decide whether a geometric sign in prehistoric rock art is

⁹² Jackson, *Moche Art and Visual Culture in Ancient Peru*, 83.

⁹³ Elkins mentions that mathematical notation does not follow the orders of reading, because a formula might demand many motions of the eye that a sentence does not, for instance in the case of fractions (p. 136). However, it may be argued that mathematical formulas simply combine the two forms of linear sequence that were previously mentioned as elements of Writing: horizontal linear sequence from right to left, conform Western alphabetic script, and vertical linear sequence from top to bottom.

⁹⁴ Elkins, *The Domain of Images*, 131.

⁹⁵ Coe, *Breaking the Maya Code*, 18.

indeed geometric rather than an abstract form of an object or being it directly denotes; or even a sign of Writing that was endowed with phonetic value, now lost to us? Elkins describes the sign ☼ in fig. 0-8 as ‘the sun sign’, but is it, in fact, the representation of a sun? And did it have phonetic value to its producers? Also, there are examples of rock art in which a linear sequence can be discerned, for instance in hunting scenes; to what extent is that an element of Writing?

In sum, the Venn-diagram and its underlying theory certainly provide no absolute answers as to the nature of different systems of visual communication; they are not an ultimate end in the analysis of visual communication. Descriptions of systems in terms of the three domains are loosely based on formal appearance and/or function and/or usage, mainly depending on how familiar we are with them. Interpretations remain subjective and liable to criticism as to why certain elements are Writing, Picture or Notation. However, the basic idea of three domains that contribute variously to different systems does bring the analysis of visual communication in general further than the traditional definition of writing, or the idea to consider everything writing and make distinctive classes, the borders between which are in fact blurred. When all systems are considered to contain elements from the domains in one way or another, from some domains more than from others, then divergent forms of visual communication can be relatively defined and compared *irrespective of any evolutionary notion*. Analysis in terms of Writing, Picture and Notation shows that alphabetic writing is not always the ideal medium for conveying thought: brand marks and traffic signs have their emphasis in the domains of Picture and Notation and as such convey thought in a quicker and more efficient way; scientific schemata have their emphasis in the domain of Notation and as such make complex phenomena perceptible at a glance in more comprehensible form than when described in words. The Venn-diagram simply deals with *different* systems, not with systems developed to greater or lesser extent.

In analyzing the marks from Deir el-Medina and in describing their relation to hieroglyphic and hieratic scripts we reject the traditional and narrow word–image dichotomy. For one thing, we do not want to depart from the idea that the marks would be a less developed form of visual communication than Egyptian script. That is, we do not want our analysis to depart from a comparison in which the marking system is already defined, or ‘condemned’, in relation to script; rather, we want to analyze the marking system *an sich*. For another, a first glance at the marks ostraca shows that they display elements that can be attributed to the three domains of the Venn-diagram. Thus, many marks resemble characters from script, several of which are also endowed with phonetic value,⁹⁶ while others are rather pictures without known linguistic value, or forms that appear to be simply geometric notations. Also, some marks ostraca display linear sequence in neat lines or columns, while others show jumbled clusters, a spatial distribution alien to script. In this dissertation, especially in the analysis of the palaeographic and semiotic nature of the marking system (Parts I-II), we will therefore take the Venn-diagram of visual communication into consideration, in which the marks and Egyptian script are not phases of development but rather two systems in their own right, the relation between which can be defined in terms of the domains they drew from in the course of the approximately five centuries of their coexistence.

⁹⁶ Haring, ‘Towards decoding the necropolis workmen’s funny signs’, *GM* 178 (2000), 45-58; Soliman, *Of Marks and Men* (unpublished dissertation); this dissertation.