

Toward a History of Cross-Cultural Written Symbols

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Abstract

It is our assumption that the goal of primitive written symbols was to create suprasubjective representations. We feel that this has continued to be the case throughout the course of history. In an increasingly globalised world, this goal seems even more evident, and we could highlight that symbolic representations tend to be supraregional, supranational, supracultural, and supraideological. Arabic, Chinese, and Suzhou numerals are nowadays restricted to specific uses and regions. Instead, Hindu-Arabic numerals, widely spread by modern computers, are commonly used everywhere. Millions of people know the meaning of symbols such as 2, 3, 4, 5, =, \neq , \geq , $\sqrt{}$, and ∞ . Almost everybody is able to recognize the usual iconic signs that mean ‘disabled person’ or ‘smoking is forbidden’. And in spite of its importance in contemporary society, a project devoted to the study of the origins, spreading, and evolution of those symbols is still lacking. The aim of our paper is to point out the theoretical and methodological assumptions upon which a history of cross-cultural written symbols should be undertaken. In this essay we consider the opportunity to study the history of written symbols a chapter in the evolution of mankind marked by a twofold¹ process: on the one side, the divergence of symbolic systems all around the world in past times, and on the other, the symptoms of a convergence of these systems at present, or we might say, *the will* of convergence toward new, unified systems.

Keywords: *semiotics, symbols, written systems, evolution, cross-cultural, history*

1. Introduction

There are three good reasons to speak of symbols. First, we feel that our world is full of significance. The universe is bursting with significance and we, the human beings in it, are becoming more and more aware of this. And the bearers, the carriers of significance,

are the symbols. Therefore, the better we know the way these tools function, the better we will manage them, and as a result we will be in an easier position to understand the human phenomenon and to improve relations between humans.

There is a second reason to speak about this issue, and more specifically about cross-cultural symbols. Understanding between people and cultures depends on knowledge and wisdom, and knowledge and wisdom are the heritage of all humanity. They are not a privilege linked to one specific culture. We could even speak of an overall culture, crossing any kind of borders, for the human species is one and the same. That is why symbols, which are the tools that open the way to knowledge, tend to be cross-cultural.

A third reason to speak about symbols, and to do so from a diachronic point of view, is that history can reveal to us many aspects that otherwise, from our flat position in time and space, might go unnoticed. How could we know the functioning of contemporary symbols without knowing the way in which symbols have operated in the past? Our generation is only one stage of many; one phase in the evolutionary process of mankind.

This study is placed within the general framework of *semiosis*, the action of signs and symbols in our world. Upon this basis, a fundamental question is to be posed from the beginning: Is *semiosis* the consequence of evolution, or rather, does it cause evolution? Are symbols a mere product of a process, or are they the driving force that pushes humans forward? The response could be a determinant for future policies in the field of culture and education. Hence, there is a responsibility for semioticians to give a well-founded explanation of the role played by symbols, and to act as advisors to the leaders of countries.

It is apparent that mankind is striving for a closer understanding between nations and cultures. The Chinese system of characters is used across the whole of China, not to mention Malaysia, Singapore, the US, Canada, Europe, parts of Myanmar, and partially in Vietnam, South Korea, and Japan, while the rest of world's population has recourse to other ways of written expression. This fact leads millions of Chinese youth to learn the Roman alphabet in order to learn languages like English, French, or Spanish. Conversely, millions of international students are benefitting from the approach to Chinese language and culture through the character system. In the course of this cultural, cross border exercise, many of the best minds feel themselves discouraged by the distance perceived between the ways of expression chosen in different writing traditions. The gap seems too wide, too deep. How can we manage to bridge this gap? Obviously, the abyss is there and will be there; it is our duty to provide a realistic approach. It is possible to help, by showing that we all are using, in our daily business, a series of symbols which are not privative of our own culture. Figures and emojis offer a simple example, though this is not a sudden phenomenon of the 21st century. As we expect to demonstrate, in previous millenniums and centuries it is apparent that human beings had an interest in creating supraindividual and supraregional representations. Even more important is mankind's capacity to transmit knowledge from generation to generation. As Sir Julian Huxley states:

He has developed a new method of evolution: the transmission of organized experience by way of tradition, which supplements and largely overrides the automatic process of natural selection as the agency of change. (Huxley, 1953, p. 149)

When we ask about the networks and lines of transmission for organized experience, we can find an answer in the same book just quoted: “symbols, transmissible skills, beliefs, works of art: these seem to be the chief articles of this transmission” (Huxley, 1953, p. 153). Among them, the only objects within our scope of action are symbols, because we have been working for many years in the field of linguistics from a diachronic perspective. Consequently, we are going to deal with symbols, and the first issue to be addressed is: What is a symbol?

2. What We Mean by *Symbols*

Everything in the world is pregnant with meaning. Peasants and fishermen have learnt to read the signs of the weather in the sky, on the earth, and on the surface of the sea. When they see a cloud on the top of a mountain that closes their horizon, they say that it is about to rain. If they see their garden all a-bloom with flowers, they know that the spring has just come. If they see the waves beginning to heave and to swirl, they advise not to go out sailing, because a storm is threatening. Interpreting these signs is very useful transmissible knowledge, but we do not consider these to be symbols, because they are not intentional signs.

Hunting societies have learnt to differentiate the footprints of deer in the mud from those of wild boars, badgers, foxes, or bears. But these footprints are not to be considered symbols.

Modern scientists know much of the dinosaurs through their footprints. In the neighbourhood of the Spanish village of Areny, much useful information has been provided by the tracks made by the so-called *arenysaurs* on a sandy beach (now a rocky outcrop) in the Cretacic Period: their weight, the direction of their path (East to West), the conditions of the land 68,000,000 years ago. But once more, these traces are not symbols.

We will use the concept *symbol* in another and rather broad sense, to refer to *intentional signs*, created, used, and recognised by human communities. For us, symbols are artificial creations, human inventions. Our terminology does not coincide exactly with that grounded on the American tradition, inspired by Charles S. Pierce. We will sometimes call *symbols* a sort of signs which, in the peircean² terminology, would be called *icons*.

When we find ourselves confronted with an ancient petroglyph carved in sandstone, we have the feeling that someone is speaking from the depths of history. Behind this stone hides a desire to mean, a will of meaning. We do not know exactly what is the content that the author wanted to express, but we are convinced that some human being made it intentionally, for a reason that surpassed his own individuality and probably exceeds our capacity for interpretation. No matter if this petroglyph contains an image-like sign or a

non-image-like sign. We will say that there we can observe symbols.

We are perfectly aware of the different uses of terms such as *signs*, *symbols*, *indices*, and *icons* in the specialised literature. Nor is the general word *sign* free of this terminological lability, well defined after Ferdinand de Saussure's work. A man as learned as Sir Julian Huxley even seemed to ignore sometimes this restricted use. He was probably using the term *sign* in the sense of *index* when he expressed the controversial assertion according to which words are not signs. It is our guess that he was referring to the restricted sense given to this word in collocations as "to recognize the signs of the weather" or "to read the signs of the times". Leaving aside this use, we agree with him when he affirms that words and symbols are tools for thinking:

Words, in fact, are symbols instead of signs. They are artificial constructions, tools for dealing more efficiently with the business of existence; so that language is properly speaking a branch of technology. Words are tools for thinking. (Huxley, 1953, p. 120)

Perhaps some of Huxley's statements may seem striking, for instance: "the main reason why the men can count better than jackdaws is that they have invented symbols as tools to count with" (Huxley, 1953, p. 117). But one idea should be withheld: symbols are tools available to individuals, thanks to the human effort in creating them and to cultural transmission over time.

We need to look at the mechanism of semiotic transmission in the broadest possible way. That's why we will use the word *symbol* in the sense of *intentional sign*. And so, what are often named symbols and what are named icons both fall under the scope of our investigation.

3. What We Mean by *Written Symbols*

Every symbol aimed to be perceived by the sense of sight or the sense of touch will be regarded as a written symbol. Engravings, low relief carvings, high relief carvings and sculptures can all be seen and can be touched. No matter if they are made on stone, clay, wood, bone, metal, or any handmade material. The contrast between light and shadow can convey the expression of meaning, and so does the contrast between smooth and rough surfaces, sharp edges, and ridges perceptible by touch. Moreover, effects of visual stimuli caused by the reflection of light from different pigmented surfaces have been, since ancient times, used to represent inner or outer reality. An example of this would be prehistoric cave paintings.

Writing in the modern sense of the word—documents written in alphabetic systems or in Chinese characters, for instance—is only one of a great many ways of expression. In attempting to set up a history of symbols, we might cast one eye on the origins of writing and another eye on current trends, on the lines that announce what is yet to come.

Up to the 19th century, some scholars in Spain thought that symbols on Iberian

pottery dated a few centuries BCE were simply “ornamental painting”. It was not until the research conducted by Manuel Gómez Moreno Martínez³ that these symbols were recognized as pieces of alphabetic and syllabic writing. Today, a great many researchers question whether symbols which appeared in Neolithic settlements of different regions of Europe are to be considered written symbols or not. One of the more conspicuous cases of incomprehension regarding written symbols is that of the Danube script, recalled by Marco Merlini:

Many signs and their combinations unearthed during the last century’s excavations were not published by their discoverers because, not having a pattern of decoration or symbols, they did not dare speculate that they might be a system of writing. Other archaeologists did not realize that their findings, catalogued and published even from decades before, might have inscriptions. They considered that the strange geometrical, abstract and linear signs were only badly executed decoration scratched by confused artists. Thus, in reproducing and publishing them, they amended and adjusted them in a more fashionable way by regularising their shapes, or imposing symmetry upon their original patterns. A third wave of scholars maintained that the strange signs were magic-religious symbols or ownership/manufacturing marks. If both interpretations failed, the ultimate resource was to consider them simply as random scribbles made by bored and idle potters. (Merlini, 2008, p. 235)

The symbolic creativity of man must have manifested itself very early in human history. There is no reason for doubting a priori the spread of writing among primitive people of all continents. Marco Merlini suggests that the Danube script is the first known writing system⁴ in the world, and asks⁵ if writing was born in Europe. In our opinion, scientists are not yet prepared to provide an answer. But we could adduce examples of symbols of a great antiquity from other regions, for instance, from France⁶, from the northwest⁷ of Portugal, or from the south⁸ or the north⁹ of the Iberian Peninsula. And of course, China contains, in this respect, an immense amount of information to be discovered. To limit ourselves now just to the Chinese findings, we can consider the Banpo symbols, or the Jangsu signs. The Banpo site is settled near the city of Xi’an, in Shaanxi Province, and offers a good illustration of a Neolithic community linked to the Yangshao culture. This settlement offers a wide sample of materials ranging from about 6,000 to 2,000 years back¹⁰. Scratch marks made on ceramic shards are not at all random and similarities with those of Glazel (France) or Vila Pouca de Aguiar (Portugal) are remarkable. It is difficult to know if the engravings of Xinglondong cave in Fengjie, near Chongqing, are really intentional. If they were so, then they would be the first relics of writing found in the world, dating¹¹ about 120 ka BP (Before Present). The intentionality of the incisions in the Shuidongou stone¹² studied by professor Peng Fei and his colleagues, and dated about 30 ka BP, seems to us to be less questionable.

To come now to the other side of this issue, we have to consider as well the current trends of symbolization in a well-connected world, in which the Internet acts as an

immense spider web; a new step leading to this layer that has been called either the noosphere or the semiosphere.

New symbols are pervading our living space. It is true that many of them remain restricted to specialised domains: the symbols of mathematics, the chemical symbols, the symbols of the language of music, the symbols of meteorology and climatology. However, it is not less true that for the average citizen those symbols are becoming increasingly common. The spreading of education at all levels, not only primary, favours democratisation of culture and the establishment of a shared set of symbols all over the world.

A classification of overall modern symbols could be attempted according to their function or intention. It is not the goal of this essay to tackle this topic, but we feel that several types could be distinguished: *warning symbols* (hazard symbols, danger symbols...), *information symbols* (weather symbols, cartographic symbols...), *behavioural symbols* (traffic signs, suggestion symbols...), *psychological symbols* (feeling symbols, affective emojis). The feeling emojis admit the expression of a very wide range of individual emotions: satisfied, surprised, thoughtful, interested, hysterical, happy, disguised, exhausted, curious, disappointed, bored, anxious, confident..., and are often used in combination with verbal written messages.

In order not to overweight our argument, we give in note number 13 the illustration of these different types¹³. It must be taken into account that the form of these symbols is subject to diachronic and diatopic variation. Their shape and colour can vary according to times, place, or changing legislation. For instance, in the European Community, hazard chemical symbols could be fashioned until recently in a triangle or square shape. But new pictographic symbols to express chemical hazard appear now in Europe in the shape¹⁴ of a diamond with a distinctive red border and white background.

A question can be useful to explain what we are here discussing: Might a map be considered a symbolic written object? The interpretation of a map is nowadays easy, for different cultures have reached a high degree of agreement on the ways of representing rivers, wells, mountains, paths, caves, and houses. Cartographical symbols constitute an almost universal system. But this degree of collectivization of geographical knowledge has not been reached overnight. Spanish scholars found in 1993, in the cave of Abauntz (Navarra, north of Spain), an engraved stone that they interpreted¹⁵ later as a “Magdalenian map” of a primitive hunting ground. Analytical radiocarbon techniques allowed them to date the finding to 13,660 years ago.

4. What We Mean by *Cross-Cultural* Symbols

Few symbols have the privilege of being completely universal. Those that do belong to the field of fundamental sciences cultivated everywhere. We refer to mathematical symbols like ‘=’, ‘√’, ‘∞’, or ‘Σ’, afforded by a science to which Indian, Arab, Chinese, European, and American researchers have contributed. Their work has built a language just for

mathematics, independent from the natural languages of the individual researchers. Chemical symbols also have an overall acceptance, since the specialists have agreed to use only one linear order, and now a formula like NaCl is commonly used instead of the antiquated ClNa, which could still be found not long ago.

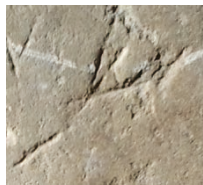
Nevertheless, we mean cross-cultural symbols in a more comprehensive sense. We speak of symbols that have far surpassed the boundaries of the original communities in which they were created. For us, Hindu-Arabic numerals are to be regarded as nearly universal symbols, since they have been accepted outside the original Indian society from which they emerged. It is supposed that they were introduced to Europe through Spain, a land owned by Arabs in the medieval period.

In order to know which symbols have been common to different and distant cultures, comparison seems to be the most appropriate way to proceed. The comparative method has proved its adequacy in the field of linguistics, as well as in that of anthropology.

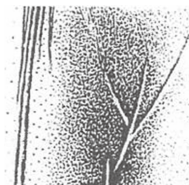
Even if we do not know the signified of a symbol, we can employ the comparative method, by paying attention to the representamen or material shape of the sign.

It is worth remarking that many ancient symbols show repeatedly in scripts scattered throughout Europe and Asia: South Spain, North Portugal, the northeast of Spain, central France, the Danube region of Romania, Sichuan province in China. The ‘fork-like’ symbol of Xinglongdong, engraved in ivory, seems to reappear in the Areny stone, and it can be found in other regions.

Figure 1. Engravings in stone and ivory of a ‘fork-like’ symbol



Areny engraving



Xinglongdong engraving

Other symbols are well known¹⁶ among archaeologists. The ‘X-like’ symbol is found in Glozel and in de Danube region, in scripts dated in both cases to around 5,000 BC. And also Areny, Sierra de Lújar, Vila Pouca de Aguiar, and even Shuidongou have witnessed this sign.

Figure 2. Engravings of ‘X like’ symbol in different parts of the world



Areny



Glozel



Vila Pouca Shuidongou

The ‘chair-like’ symbol shows itself in Areny, Glozel, and Vila Pouca, as can be seen in the following images.

Figure 3. Engravings of ‘chair-like’ symbol in different parts of Europe



Between old European and Chinese symbols, many resemblances have been pointed out. Are these resemblances random coincidences? Are the similarities mere chance combinations? A large amount of positive data has to be cumulated before answering these questions. If these similarities are not to be considered random, then the scientists have to build up a theory to explain them. Are they due to mutual influence between cultures? Is there one culture from which the symbols were communicated to the others? Is it possible to fix a relative chronology for the process of expansion of semiotic models? In the process of evolution, which forms reveal previous stages and which subsequent ones? The comparative method leads inevitably to the historical method.

5. What We Mean by *a History of Symbols*

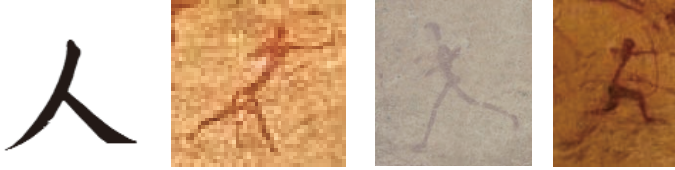
Symbols are cultural objects subject to evolution. All their components evolve, not only their material or external face, but their internal face—their significance—as well. Using Peirce’s triadic view, we could say that not only the *representamen* changes, but that the *interpretant* and the *semiotic object* change in accordance with it. The semiotic object has necessarily to experience transformations over the course of time, for man, world, and human communities are constantly undergoing changes. However, few people would feel able to describe the metamorphosis of *semiotic objects*. That is why it would be preferable to recast the question in Saussure’s terms of *signifier* and *signified*. We will assert that a history of symbols has to undertake the task of describing the evolution of signifier and signified of symbols from their origins until their death or until present, if they are still alive.

As in historical linguistics, comparison precedes history. In order to be able to trace a causal relationship between phenomena or a chronological precedence of one over the other, we must be able to compare the different facts that are supposedly related.

We will try to show this with one of our favourite examples: the Chinese character for ‘human being’ (pronounced ‘ren’). In a previous work (Terrado, 2016) we have explained our opinion that this symbol takes us back to the ancient times in which humans lived in caves and left their paintings on rocky walls. This character can be considered as the simplification of a picture showing a walking man, a man being alive. The upright position in the vertical longer stroke and the movement implicit in the shorter one make it explicit that the man is not dead.

If we put side by side the Chinese character and samples of men running or hunting in primitive rupestrian scenes¹⁷, the resemblance seems to us apparent.

Figure 4. A character compared to figurative paintings from Argelia, South Africa, and Spain



It is remarkable that the comparative images come, not from China or Asia in general, but from Africa and Europe. *The Rock Art Research Institute (RARI)* of South Africa has kindly allowed us to use several of its images. The *South African Rock Art Digital Archive (SARADA)* is a very well managed resource open to researchers. The *signifier* has evolved in the sense of achieving a more abstract representation, leaving aside details that could be very important for primeval hunting societies. The *signified* seems to remain close to the value of ‘human being’, although it is difficult to guess which was the real meaning in the minds of the dwellers of ancient Africa. As for the *semiotic object*, it is of the utmost importance to realize that we are trying to link a modern Chinese character to ancient suprasubjective representations that show similar features in South Africa, in the Sahara Desert, and in the east of the Iberian Peninsula. What would be the consequences for the history of cultures if this and other links could be proved to be true? The gap between oriental and occidental cultures could appear, in our view, less deep.

A history of symbols must be both comparative and evolutive. And it would be wise to add a new requisite: it must be *critical*. A critical¹⁸ study of an issue is that which offers all information available before giving an interpretation of the facts or defending a thesis to explain them. When we say “all available information” we are referring to documentation, empirical evidence, and literature generated on the subject. Sometimes we deem to know the supposed date, the place of birth, and even the paternity of a symbol. Even in these cases we need to be very cautious before making pronouncements on the origins and meaning of a definite symbol. We will show this using one of the modern symbols for the concept of ‘peace’:

Figure 5. A symbol for ‘peace’



It is known that this symbol has a date of birth: the Easter Weekend of 1958, a place of birth: London, and a father: Gerald Herbert Holtom, an English designer. The sign was designed for the Direct Action Committee Against Nuclear War and made its public

appearance in the first anti-nuclear march from London to Aldermaston, where the English nuclear weapons were manufactured. But to know the origin of a symbol is not equal to knowing the history and the value of it. What was the value given to it by Holtom and the organisers of the march, one of whose leaders was Sir Bertrand Russell?

At first we thought that the shape of this sign had been inspired by the Japanese character *Heiwa* ‘peace’ or the Chinese *hé*, very close to this meaning in words like *héping* (和平) or *píng hé* (平和).

Figure 6. The Japanese character *Heiwa* ‘peace’.



Figure 7. The Chinese character *hé*



We imagined that the peace symbol was the abstract figure of a man with open arms, showing that there was no reason to fear him. Moreover, all in this sign would fit, if we would be allowed to interpret the additional strokes as indices of eventual presents. Furthermore, the relation to a Japanese sign could be interpreted as a wink or an affectionate nod to Japanese society, that had suffered in Hiroshima and Nagasaki the worst moment of its history.

Many fantasies like this have arisen. But Holtom himself wanted to disallow them by explaining¹⁹ the design process: “I drew myself: the representative of an individual in despair, with hands palm outstretching outwards and downwards in the manner of Goya’s peasant before the firing squad. I formalized the drawing into a line and put a circle round it”.

To explain the design process is not yet the goal of a symbol’s explanation. It is fair to ask: Whom does the interpretant (the signified) of the symbol belong to? Or in other words: Is the intended meaning given by the author the only real meaning? When a sign becomes a community sign, up to the moment it is socialised, it ceases to belong to its creator. The interpreters of the sign will use it and will pour into it their own meaning.

To sum up. The *representamen* is a cross-like sign embodied in a circle and with arms outstretching downwards. The *interpretant* is ‘peace’. The *semiotic object* is a very complex cognitive construct, adaptative and malleable across time, space and cultures. What does the concept of ‘peace’ really mean? For the anti-nuclear members of the DAC, ‘peace’ could have meant the absence of nuclear threat. For a Buddhist monk, ‘peace’ could mean a balanced inner state of soul. For people subject to bullying, the cessation of different kinds of physical and psychological violence. For others, a welfare state based on social justice. And maybe the Japanese speakers and readers will fill the symbol with the value of the *Heiwa* character, and so coming close to Holtom’s first intuition: a man with outstretched arms.

6. Conclusion

Tools for human expression are the product of a grounded semiotic activity undertaken over time. We agree with Ray Jackendoff when he affirms²⁰ that the mind does not manufacture abstract concepts out of thin air. And we think that symbols are the seeds of speech, sown in the field of human cognition, with the expectation of the fruits of knowledge and wisdom.

In the previous pages it has been demonstrated that a great many symbols have very remote origins and are the result of the work of the human species over centuries and even millennia. A scientific history of symbols would improve our knowledge of the human being, would help in tracing the birth of concepts, and would demonstrate the cross-cultural condition of human thinking.

Because of its traditionally conservative nature, the Chinese writing system is called to be one of the key pieces in the setting up of a history of symbols. In accordance with its historical relevance, the Chinese culture may offer clues to solve very crucial problems.

Contemporary humanity has achieved a high degree of solidarity, and few minds could consider man “an erratic object in a disjointed world”²¹. That is why we propose to study those symbols that serve witness to the efforts made by our ancestors to build bridges between cultures. In doing so, perhaps we will be able to bring out new trends for future symbolic systems, and somehow forecast a little piece of the world that is to come. We have not given a response to the question stated in the introduction: Is *semiosis* the consequence of evolution, or rather does it cause evolution? We are not yet in a position to answer, but we would like to close the previous reflexions with a sentence from John Deely:

“Semiosis is at the heart of evolution throughout our universe from its beginning” (Deely, 2015, p. 84).

Notes

- 1 In this respect we endorse the thesis of Sir Julian Huxley when he says in his play *Evolution in Action*: “The same process of divergence followed by convergence occurred on the cultural level” (Huxley, 1953, p. 157).
- 2 Per Aage Brandt synthesizes the distinction between icons, symbols, and indices in the following words: “All signs bind some signifier to some signified, that is, an expression (a content of possible perception) to a meaning (a content of conceptualization). Different types of signs then differ by the charter of the binding principle (the interpretant: the cognitive activity that ‘binds’ signifier and signified). The traditions describe these types in many ways, one of which, stemming from the American philosopher C. S. Peirce, distinguishes image-like signs (icons), non-image-like signs (symbols), and thing-like signs (indices)” (Brandt, 2015, p. 41).
- 3 As far back as the 1940s, Manuel Gómez Moreno Martínez managed to decipher the Iberian writing system, and developed a detailed list of correspondences of the Iberian symbols with

the Roman letters.

- 4 “The Danube script appeared in South-East Europe around 5,300 BC, some two thousand years earlier than any other known writing. It originally appeared in the central Balkan area and developed locally. It quickly spread to the Danube valley, southern Hungary, Macedonia, Transylvania, and northern Greece. It flourished up to 3,500 BC, when a social upheaval occurred: according to some, there was an invasion of new populations, whilst others hypothesise the merge of new elite” (Merlini, 2008, p. 235).
- 5 Cf. Merlini, Marco (2004). *La scrittura e nata in Europa?*. Rome: Avverbi Editore.
- 6 It is remarkable that there exists in France the so-called *Glozel Finds*: relics of ancient human occupation, some of them dating back to the Neolithic Age. Glozel is a small village in central France where these relics were unearthed. However, they have been put under suspicion of being fake, which makes it difficult to use them to support any theory. Nevertheless, in our opinion, there are strong arguments in favour of their authenticity.
- 7 It is worth highlighting the inscriptions of the dolmen of Alvao, about which Pedro Bosch-Gimpera pointed out: “Pero lo que presta a los hallazgos de estos dólmenes un interés grandísimo son unos signos que tienen todos los caracteres de un sistema de escritura. Aparecen unas veces aislados, otras en unión de figuras de animales y otras alineados en grandes grupos, de manera que permite hablar de verdaderas inscripciones” (Bosch-Gimpera, 1911, p. 315). It is to be noted as well a written stone found in Vila Pouca de Aguiar, a town in the North Portuguese region of Tras-os-Montes. It shows symbols that are clearly similar to those found in Glozel or in Areny. This engraved Stone is placed in the *Museu de Arqueologia e Numismática de Vila Real*.
- 8 In South-West Spain, the dolmenic culture of Huelva, in ancient Tartessos, offers examples of writing dated probably 5,000 or 6,000 BP, as has been noted by Ana Maria Vázquez Hoys (Vázquez Hoys, 2008). The so-called “dolmen de la Cúpula” and “dolmen de la Zarzilla” provide enlightening examples. In the South-East, in the Granada province, recent findings in several caves of the Sierra de Lújar (http://www.granadahoy.com/granada/Hallan-grabados-rupestres-Sierra-Lujar_0_1022897924.html) seem to confirm the widespread presence of an ancient symbolic system.
- 9 From the northeast of Spain we could show two engraved stone slabs, photographed by Javier Terrado and reproduced herein.



- 10 As professor Peng Fei states: “In China, engraved objects from Pleistocene contexts were rarely reported. Until now, the earliest engraved object is found in Xinglongdong cave, South China. This is an engraved ivory and the U-series dating is around 120-150 ka BP [16]. In North China, Pei [36] first found an engraved antler from Upper Cave of Zhoukoudian site. You [14] reported an engraved bone from the Shiyu site which is thought to be about 28-32 ka BP. Bednarik [15, 37] reported an engraved antler from Longgu cave which is about $13,065 \pm 270$ a BP. But the nature of these artifacts is still debated and further analysis is needed [15, 17]. Hence, it is too early to determine whether the non-utilitarian objects are representative of a succession of behaviors or whether the evidence from China supports any particular scenario about the emergence of modern human behavior. In any case, it cannot be denied that in the Early Late Paleolithic of NW China, hominids in SDG1 had considerably evolved cognitive capacities or modern human behavior [38]” (Peng, 2012, p. 4598).
- 11 See Gao Xing, et al. (2004). “120-150 ka human tooth and ivory engravings from Xinglongdong Cave, Three Gorges Region, South China”.
- 12 The Shuangou little stone, dated 30,000 BP, has been considered evidence for symbolic activity of man in China. An image offered in the work of professor Peng Fei is here reproduced: “Cognition and symbolic thinking are viewed as important features of modern human behavior. Engraved objects are seen as a hallmark of cognition and symbolism, and even as evidence for language [...]. Combining all these features, we suggest that the incisions were made by an intentional behavior and were probably of a non-utilitarian character. Because the nature of most other engraved objects in China is debatable, we cannot get a clear scenario of the emergence and progress of modern human behavior in North China. But we infer the possible existence of a counting or recording system, or other symbolic behaviors, which reflect considerably evolved cognitive capacities or modern human behavior in the Early Late Paleolithic of East Asia.”



- 13 The figures below are intended to give a rough illustration of these ubiquitous symbols that we find everywhere in our daily life.

Figure 8. Warning symbols. Hazard symbols.



General warning



Flammable materials



Slippery floor

Figure 9. Information symbols. Weather symbols.



Figure 10. Information symbols. Cartographic symbols.

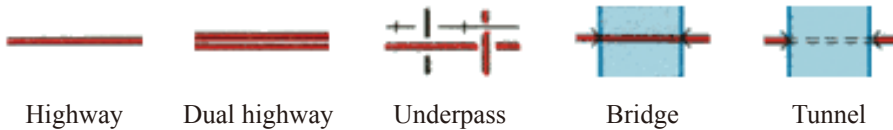


Figure 11. Information symbols combining verbal and nonverbal signs.



Currencies available



Location of services

Figure 12. Behavioural symbols. Traffic signs.



No entry(Compulsory)



go to the left



Maximum speed 80 Km

Figure 13. Behavioural symbols. Suggestion symbols.



Do not feed fish



Offer these seats



Use the dustbin

Figure 14. Psychological symbols. Emojis.



- 14 As an example we reproduce here the symbol for corrosive products in previous and present forms.



Previous and present forms

- 15 The investigation was conducted by a group led by Pilar Utrilla of the University of Zaragoza. The result was published in 2009 in the *Journal of Human Evolution*, 57(2), 99-111. We reproduce here a part of the abstract: “The engraving seems to reproduce the meandering course of a river crossing the upper part of side A of the block, joined by two tributaries near two mountains. One of these is identical to the mountain that can be seen from the cave, with herds of ibex depicted on its hillsides, on both sides of the gorge in front of which the cave of Abauntz is strategically located. In the southern part of the gorge, there is a completely flat area where the watercourses slow down, forming meanders and flooding in springtime. The following elements are also represented on the block: tangles of concentric strokes and bundles of lines forming very marked meanders. In short, all of these engravings could be a sketch or a simple map of the area around the cave. It could represent the plan for a coming hunt or perhaps a narrative story of one that had already happened”.
- 16 It will be useful to visit the following website: <http://www.prehistory.it/>.
- 17 From left to right, the second sample is taken from a scene of hunting of buffaloes in the region of Tassili n'Ajjer, in the Sahara Desert of Algeria. The third one comes from Kwa Zulu-Natal province, South Africa. The fourth one is a fragment of the paintings in the cave of Albocàsser in the province of Castelló, Spain.
- 18 Professor Joan Coromines insisted in that our dictionaries had to be critical and etymological at the same time. And he is the author of the best historical dictionary of the Spanish Language written up to now: *Diccionario Crítico Etimológico Castellano e Hispánico*. Madrid: Gredos (1980-1991).
- 19 In 1973 Holtom wrote to Hugh Brock, editor of *Peace News* at the time when the anti-nuclear movement was created, in an attempt to allay doubts about the design decisions. See Joseph Peircy (2013). *Symbols. A Universal Language*. London: Michael O'Mara .
- 20 “The mind does not manufacture abstract concepts out of thin air, either. It adapts machinery that is already available, both in the development of the individual organism and in the

evolutionary development of the species” (Jackendoff, 1983, p. 118).

- 21 Pierre Theilhard de Chardin highlights the fact that, in the course of evolution, man has discovered man and has developed the sense of being related to mankind, to life, and to the universe. See the *Foreword* to the English edition of *Le phénomène humain*, entitled *The Phenomenon of Man* (Teilhard de Chardin, 1970, p. 34).

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