

Evolution of Graphic Design from the Paleolithic Era

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Abstract. This paper discusses the evolution of graphic design from the epochs of human history beginning in the Paleolithic era. It articulates the emanation of graphic design from the early man's need to interact with his environment in the Paleolithic era. Early people in Africa and Europe left paintings in caves, including the famous Lascaux caves in southern France. It delved into the Mesolithic era which manifested in the creation of complex settlements requiring capacity development. In Africa, the Neolithic era was characterized by outdoor [rock art](#), including [petroglyphs](#) and a diminishing amount of [cave painting](#), notably hand stencils and other [pictographs](#) and Pictogram. The Neolithic era significantly ushered in enormous development in human societies, rearing of animals, farming and the beginning of hieroglyphic writing systems from Africa using the pictorial methods of communication. The paper also enunciated the rise of graphic design from the 19th and 20th century to the new millenniums and the consequential impact of digitalization on graphic design practice in responding to the need of the society.

Keyword: Paleolithic Mesolithic Neolithic Pictogram

1. Introduction

Graphic design is the art and profession of arranging visual elements such as [typography](#), images, symbols, lines, shapes, text, and colours to convey messages to an audience. The designer task is to combine visual and verbal elements into an effective means of communication. Graphic design is therefore a collaborative discipline: writers produce words, photographers and illustrators create images that the designer incorporates into a complete visual

communication. Historically, graphic design was prompted by early man's need to relate with his immediate environment. The accentuation of visual culture and the inevitable development of graphic design was a culmination of a complex and dialectical processes that continuously shape the design history. The transformation of graphic design as a profession has been consistently influenced by technological creations, societal needs, and the resourcefulness of designers. Hence, this paper discusses the evolution of graphic design from the Paleolithic era to the twenty first century and the relevance of graphic design to society

2. Paleolithic Era

The Paleolithic, or Old Stone Age, ranges from 30,000 BC to 10,000 BC and produced the first accomplishments in human creativity, preceding the invention of writing (Boundless, 2015). This is the longest period of human history which was characterized by the development of simple stone tools and covers that characterizes human technological prehistory. During the Paleolithic age, man was considered to be a food gatherer who relies on hunting wild animals, birds and scavenging fruits for survival, humans were in compactly small societies which are similitude of bands. Other natural materials were employed for use as tools, include [leather](#) and vegetable [fibers](#). However, these tools were gradually developed from single, multi-purpose tools to an assemblage of different and advanced specialized types of artifacts, each conceived and designed for specific functions. In essence, this progression lead to an improvement in the complexity of essential tools, each anchored on a tradition, that distinguished the cultural development of Paleolithic times. Indeed, the trend was from simple to complex, from a stage of relatively high

degrees of specialism, just as has been the case during historic times.

When man began to increase in population and communities, it dawned on him the need to provide more basic tools and transfer ideas which are necessary for development and survival. So the need for visual communication for training and documentation arose. Models drawings depicting animals and objects of value were drawn on caves. At the early stage charcoal was primarily utilized to draw, when its evanescent was noticed, a range of warm tones, from light yellows through red-browns, made from red and yellow ochers formed the palette of pigments, mixed with fat as a medium for drawing (Rabu 2008). Animal imageries were drawn and painted on caves walls. Cave paintings demonstrate early humans' capacity to give meaning to their surroundings and communicate with others (Boundless, 2015). These painting were basically animals, human figures, and [abstract](#) signs. They were also teaching aids which was meant to train the young once on the dynamics of hunting as a cooperative group effort. Abstract geometric signs such as dots, squares, and other outlines are combined with the animals in many of the cave paintings. Perhaps, the pigments were smudge onto



Plate 3. A group of lions (cf Chauvet, Deschamps & Hillaire 1995: 101) have revealed extremely beautiful rock paintings. Unfortunately, because it is imperative that this veritable Sistine Chapel of prehistory be preserved, at this site as at many others, exhibitions and videos replace a visit.

All over the world, the prehistoric man has left numerous *petroglyphs*, which are carved or scratched signs or simple figure of rock. Many of the pictographs, and indicate ideation of symbol to represent concepts. Early people in Africa and Europe left paintings in caves, including the famous Lascaux caves in southern France. A high level of observation and memory is evidenced in many prehistoric drawings. In an engraved reindeer antler discovered in the cave of Lorthet in southern France, the scratched drawings of deer and salmon are remarkably accurate (Rabu, 2008).

In Africa, south of the Sahara, and in present-day Tanzania (Kondoa and Singida in the Rift Valley), ancient hunters left black and yellow paintings and graffiti in granite caves and sandstone galleries (Moffat, 2007)

the walls with a finger, chewing sticks or a brush was made from stumble. Some of these images were silhouette of animals which were incised on the rocks. This marked the inception of art as it is known. Rather, it was the beginning of visual communications, these early images function as a necessity for survival in their utilitarian and ritualistic purposes. There appears to be traces of some of these animals being images were used for magical purposes to surmount wild animals in hunting. Perhaps, they represent man-made objects no one knows. According Rabu (2008), these images had existed before the beginning of history—the 5,000-year period during which people have recorded in writing chronicles their knowledge of facts and events. The animals painted on the caves are pictographs, elementary pictures or sketches to represent the things depicted. Even more fascinating, however, are two diamonds-shaped forms with interior marks. The early pictographs metamorphosed in two ways. First, they were the advent of pictorial art. The objects and events of the world were recorded with increasing reliability and precision as the centuries passed. Second, pictographs also usher in writing. Perhaps documentation of these drawings in their original pictorial symbols for spoken-language sounds is evidences of man's ingenuity.



Plate 4. A bison turning its head (attacking); cf Chauvet, Deschamps & Hillaire 1995: 107



Plate 5. The group of animals in the central cavern of Altamira Source: Wildgen (n,d)

3. Mesolithic

The Mesolithic Period, or Middle Stone Age, is an archaeological term used to describe specific groups of cultures defined as falling between the Paleolithic and the Neolithic Periods. While the start and end dates of the Mesolithic Period vary by geographical region, we can date it approximately from 10,000 BCE to 8,000 BCE (Boundless, 2015).

The hunter-gatherers had to modify their ways of living and their pattern of settlement to conform to the changing conditions. The manifestation of these new patterns resulted in the creation of complex settlements and new stone industries; Middle Stone Age, period in human development between the end of the [Paleolithic period](#) and the inception of the [Neolithic period](#). Features of the period were hunting and fishing settlements along rivers and on lake shores, where fish and mollusks were enormous. Humans adopted other forms of communication, often for [mnemonic](#) purposes - specially arranged stones, symbols carved in wood or earth, [quipu](#)-like ropes, [tattoos](#), but little other than the most durable carved stones has survived to modern times and we can only speculate about their existence based on our observation of still existing 'hunter-gatherer' cultures such as those of [Africa](#) or [Oceania](#) (*Bar-Yosef, 1998*). In North-Eastern Europe, Siberia, and certain southern European and North African sites, a "ceramic Mesolithic" can be distinguished between 7,000-3,850 BCE. Russian archaeologists prefer to describe pottery-making cultures as Neolithic, even though farming is absent. These pottery-making Mesolithic cultures can be found peripheral to the sedentary Neolithic cultures (Boundless, 2015).



Plate 6. Painting of a Bison in the great Hall of Policromes, Altamira, Spain
Source: Boundless, 2015

4. Neolithic

The Neolithic Period, or *New Stone Age*, is a term to describe a series of changes in human social behaviors and lifestyle which began around 10,200 BCE in the op East, and lasted until the development of metal tools between 4,500 and 2,000 BCE. Significant in this era was the development of agriculture, complexity society, the rearing of animals, and the human embrace of sedentary lifestyle. This lifestyle is a non-mobile culture where man stays in one place rather than migrates around. The Neolithic Period began in different parts of the world at different times, The Neolithic is the last part of the Stone Age, and was replaced by Bronze Age and use of bronze tools.



Plate 7. "Neolithic" refers to the "new stone age," generally reflecting the use of stone tools with some use of metals, and with people settling into permanent communities, the development of agriculture, and animal husbandry. In the Neolithic evidence of early pottery appeared, as did sculpture and the construction of megaliths. Source: <https://en.wikipedia.org>

Features of the Neolithic period include development of agriculture, rearing animals and a settled lifestyle. This enhanced the value of arts and [crafts](#). The expansion in settlement patterns, subsequent growth of villages and other human enclaves usher in the replacement of rock painting by more portable art which are essentially enhanced by the use of precious metals (e.g. copper is first used in [Mesopotamian art](#). [Crafts](#) were developed as well as various forms of [decorative art](#) and design. Houses were adorned with murals while pottery and textile had patterns on them. Below are some of the decorated pots. The use of lines, circles, oval shape; use of asymmetric and symmetric balance and judicious use of negative and positive spaces are conspicuous noticed implying the knowledge of graphics by the designers of their time. Additionally, the contrast created on the pots has added colour and perhaps this may connote a cultural meaning.



Plate 8. Neolithic pottery jar Yellow River, China Plate 9. Majiayao Culture, Circa 2500 BC ceramic 13.5inch
 Source: *Encyclopedia of Art (n.d)* Source: *Encyclopedia of Art (n.d)*

However, other important art-related trends which surface during the Neolithic period include writing and religion. The appearance of early hieroglyphic writing systems in Sumer heralds the arrival of pictorial methods of communication, while increased prosperity and security permits greater attention to religious formalities of (e.g.) worship (in temples) and burial, in megalithic tombs. (visual-arts-cork.com). In Africa, the Neolithic era was characterized by outdoor [rock art](#), including [petroglyphs](#) and a diminishing amount of [cave painting](#), notably hand stencils and other [pictographs](#) and petrograms. In contrast to what is observed in the rest of the Mediterranean, the Neolithic evolution in North Africa is characterized by an important development of the Epipaleolithic communities, based on a broad-spectrum subsistence system, economic intensification and increasing sedentism (di Lernia, 2013). As the Neolithic cultures submerged into the civilization of early Egypt there was continuity (in the Mesolithic period) between Paleolithic art in Northern Africa and early writing systems (e.g. in Egypt). The hieroglyphic characters are pictorial, structured and sequential, i.e. they are semi-symbolic signs in the hierarchy. The signs for a word with one consonant were employed as signs for consonant that could be created.

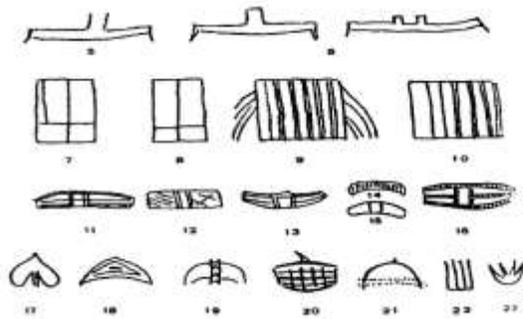


Plate 9. *Abstract Writings* Source: Wildgen (n.d)

The abstraction process from pictures to writing symbols can liken to a general mnemonic principle. Wildgen (n.d) noted that the style of language employed by Yoruba tribes and in Australian messenger sticks. The message is coded for the messenger, who “reads” it when he arrives after a long journey. This guarantees that the receiver does not forget important contents on the presumption that message is understood. This implies that the written message can only be “read” accurately if the reader has understanding of its contents from the “written” document. Communicative usage of writing was systematically developed in Mesopotamia, which became a synergy of cultures and concentrated large populations into one complex political system. The paths for the exchange of goods, values, and ideas became complex and difficult to control. The civilizations of Mesopotamia (and the “golden crescent”) took their new shape between 11,000 and 8000 BP.

5. Development of the Writing System

Symbolic objects represented the objects sent, received, sold, etc., and signs on the containers represent these symbolic objects. The recipient could tack together these messages for him be able to interpret across the categories:

ranging from what is received to sold, dead, lost, etc. Therefore, symbolic objects and the management of them became a kind of holistic imitation of economic dealings. Representational functions achieved by the symbolic system in its organization and its processing; the single signs may lose their pictorial content, but the representation of the writing system remain enriched. The development of writing systems was informed by cultural and economic purposes, which gave rise to larger, more complex societies, and influenced a combination of diverse culture and languages. In essence effective communication was shaped by social complexities. Ethnic, religious and linguistic diversity actuated the consciousness of religion, myth, ethnicity, and language which became object of reflection at least for a group of people. In Africa, south of the Sahara, and in present-day Tanzania (Kondoa and Singida in the Rift Valley), ancient hunters left black and yellow paintings and graffiti in granite caves and sandstone galleries (Moffat, 2007)

A pictogram or pictograph is a symbol representing a concept, object, activity, place or event by illustration. Pictography is a form of writing where ideas are communicated via drawing. It is the fundamental of cuneiform and hieroglyphs. Early written symbols were based on pictograms (pictures which resemble what they signify) and ideograms (pictures which represent ideas). It is commonly believed that pictograms appeared before ideograms ("<https://en.wikipedia.org/>). They were utilized by various ancient cultures all over the world since around 9000 BC and began to develop into logographic writing systems around 5000 BC (*Pandora.cii.wvu.edu*).



Plate 10. Pictures of "hands" in the cave of Santian (Spain); cf Jelinek 1972: 465

An ideogram or ideograph is a graphical symbol that represents an idea, rather than a group of letters arranged according to the phonemes of a spoken language, as is done in alphabetic languages. Pictograms, in turn, evolved into ideograms, graphical symbols that represent an [idea](#).

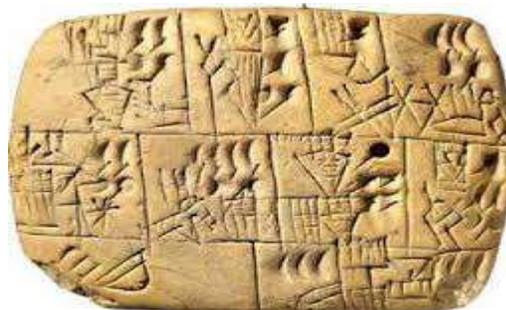
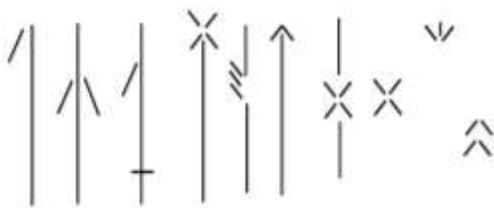


Plate 11. Examples of small signs Source: www.iraqiembassy.us

The Alphabet The history of the alphabet emanated from ancient Egypt. The first pure alphabets (properly, "abjads", mapping single symbols to single phonemes, but not necessarily each phoneme to a symbol) emerged around 2000 BC in Ancient Egypt, as a representation of language developed by Semitic workers in Egypt, but by then alphabetic principles had already been inculcated into Egyptian hieroglyphs for a millennium (Barcelona, 2010). Due to the relevance of hieroglyphic inscriptions in temples and tombs, many creations of these beautiful characters were by painters, sculptors in relief and craftsmen modeling in plaster. Also the introduction of [papyrus](#), the Egyptian script is also the business of scribes.



Plate 12 Egyptian Papyrus Source: From Cairo (2018)

6. Graphic Design in the 19th and 20th Century

In the late 19th century, graphic design emerged as a distinct profession in the West, due to the specialization processes of the profession, the impact of new technologies and commercial possibilities influenced by the [Industrial Revolution](#). New production methods enabled the detachment of designing communication [medium](#) from its production. Consequently, in the late 19th and early 20th centuries, [advertising](#) agencies, book publishers, and magazines employed art directors who developed visual elements of the communication and into a harmonious whole, create an expression appropriate to the [content](#). Megg (1998) posited that the word graphic design was coined by typographer [William A. Dwiggins](#) in 1992 identify the emerging profession. During 20th century, the technology afforded designers the opportunity of expanding rapidly, coupled with the artistic and commercial possibilities for design. The profession advanced and graphic designers venture in to design and production of magazine pages, book jackets, posters, compact-disc covers, postage stamps, packaging, trademarks, signs, advertisements, kinetic titles for [television](#) programs and motion pictures, and Web sites.

7. Graphic Design at the end of the Millennium

The reaction to the increasing severity imposed by modernism and minimalistic movements such as the Swiss Style on graphic design was slow but inexorable, resulting in new typographic investigations and trends ([Citrinitas, 2016](#)). Graphic designers and art directors increasingly felt disillusioned towards the requirements and flat approach of the advertising sector by which they were largely employed. The publishing of the First things first 1964 Manifesto which was a call to a more radical form of graphic design and criticized the ideas of value-free design changed the face of design in this age. This had enormous influence on the generation of new graphic designers and contributed to the founding of publications.

The First Things First manifesto was written 29 November 1963 and published in 1964 by Ken Garland. Today we may not understand the significance of the document which at the time caused consternation ([Citrinitas, 2016](#)). It preaches against the consumerist culture that entirely focus on buying and selling things and endeavour to introduce a Humanist dimension to graphic design theory. It was later republished and republished with a new group of signatories as the First Things First 2000 manifesto.

8. Digitalization

In modern times the creative process has been enhanced tremendously by computers. Graphic design packages such as Adobe Photoshop, CorelDraw and Adobe Illustrator have transformed the design workflow. Modern technologies enable flexibility and simplicity in the design process, rather than having to cut out and paste together countless elements just to achieve a design. The direction of design is consistently influenced by technological and cultural dynamisms. The focus now is more on form, function, materials and methods of industrial production. This is in contrast with the elements of design that were utilized prior the Digital Revolution ([Digivisualart, 2016](#)).



Plate 16. Pepsi billboard from in the 1950s Source: digivisualart.wikispaces.com



Plate 17. Technologically driven modern Pepsi Billboard design
Source: digivisualart.wikispaces.com

9. Conclusion

Graphic designers of the new millennia especially in Africa are inspired to create design contents influenced by the epoch periods in human civilization. Designers are aware that the motives behind the construction of meaning and understanding the importance of preservation of their cultural heritage in their design process inform their design concepts. Apparently, technology shifts have expanded graphic design demands outside of the traditional print media to new trends of interactive multimedia. In today's digital world, designers ensure that designs are creatively driven by desirability and usefulness. This is quite different from what was obtainable in the past where designers were primarily concerned with aesthetics. Modern technology enables high quality designs and streamlines the design workflow to enhance efficiency

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