Museum and Cultural Heritage in the World of Digital Technology

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Museum as a cultural epiphenomenon reflects all changes occurring in cultural, political, economic and technological fields. Nowadays, as new technologies bring upon significant changes in the way we perceive space and time and open up new ways in understanding the world and all things, the museum is perceived as a network of potential things, a kind of web intersection that connects objective with digital reality. New technologies within the museum’s space form a new relationship between the public and the cultural heritage objects, and offers new approach perspectives by reinforcing revisionist trends as far as the role and importance of the museum.

Keywords: metanarratives, digital museum, visual reality

INTRODUCTION
The museum is not a well-established institution but a lively organization following all changes occurring within the cultural, political and technological horizon of societies in the context of their historical evolution. In other words, it is a cultural epiphenomenon. Its transformations follow all changes and greatest cultural disturbances due to the fact that “within the space of a few years a culture sometimes ceases to think as it had been thinking up till then and begins to think others things in a new way” (Foucault 2002: 56), which leads to a complete redefinition of the content of the world’s knowledge and understanding.

Nowadays, it could be claimed that the museum is placed at the threshold of a new transition, a new change which leads to a New museum Paradigm (based on the meaning given to it by Thomas S. Kuhn) which results from the meeting of digital technology with the museum and cultural heritage.

The present proposal mainly places emphasis on the new horizons broadened by applying modern digital technologies to the way cultural heritage is presented and perceived in the undefined space and time as far as digital museum is concerned.

The main questions that dominate the present proposal are the following:
In what way do changes in the perception and experience of the space due to the digital era influence our relationship with the cultural heritage objects and the museum’s metanarratives?

Under what prerequisites did digital technologies make their appearance, amend and overturn well-established museum practices of approaching cultural heritage as the latter were shaped during modernity?
EXPERIENCING THE WORLD AS A DIGITAL NETWORK - THE MUSEUM IN THE DIGITAL ERA

All changes induced by digital technologies regarding the way we perceive the concepts of space and time pave the way for a new approach and understanding of the world and things. Michel Foucault comments on the world of new technologies and says that: “We are in the epoch of simultaneity [...] We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein” (Foucault, Of Other Spaces: Utopias and Heterotopias, 1984).

In this kind of network, the person is a constant witness, a direct observer and an eyewitness of everything that happens all around the world since the concepts of local and global tend to blend and coincide as both space and time restrictions no longer exist. “During the mechanical ages”, Marshall McLuhan says, “we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time” (McLuhan 1964). Space and time positions become more and more non-successive and perceivable as a network within the context of electronic, non-Euclidean, multidimensional space-time.

Le musée imaginaire - so called by the French intellectual and politician André Malraux - is a prelude to modern electronic era offering the possibility of an instant navigation around the universe of culture and civilization. It is a timeless image archive that includes in its imaginary space the universe of worldwide works through their artistic contemplation.

The use of camera led to the mechanic production of images which signified the beginning of a revolution. Thus everyone has now the chance to create its own musée imaginaire. Nowadays, this revolution being evolved to a digital multidimensional and interactive space with multiple interconnections of both people and objects in a worldwide network. In the context of the emergence of digital societies the museum can be perceived as a network of potential things, an exhibition place that needs no materials in order to legalize its existence, digital image is enough for its operation as a substitute or supplementation of real objects. For example, websites as CyArk, Google Arts & culture and Europeana, are designed as access gates to digital cultural reserve. Under this kind of concept, they create some kind of digital-imaginary museum existing exclusively on the internet.

One aspect of the museum’s online connection with other places is the visual reunification of exhibits being scattered around different museums all over the world. With the use of the relevant database, a reunification of the Egyptian statue of Amenophis III whose head is at the New York Metropolitan Museum of Art while the rest of his body is at the Egyptian Museum in Cairo could be possible. The same applies to the statue of Amasis whose head is being kept at the New York Gallic Museum whilst his body is kept at the Egyptian Museum in Cairo. Actually, the architectural competition for the Grand Egyptian Museum, GEM, placed between Cairo and the Great Pyramid of Giza was held according to the aforementioned reunification. A main prerequisite for this competition was that the visitor of the museum could have the chance to combine his navigation around the various rooms of the museum with a virtual electronic navigation around all Egyptian artifacts being placed at different points of the museum so that he could be able to form a full image and understand completely the Egyptian civilization (Figure 1).

From now on, the museum is perceived as a web junction participating to multiple spatial networks. In other words, in the same building a “vertical” component is being exerted that connects it to space whilst multiple “horizontal” components are exerted to connect it to other places, hence joining objective and digital reality together. So, within the framework of its indefinite digital space:

1. Contiguity no longer exists as a main component of the meaning of geometric space since in cyberspace we experience a kind of twist-
ing like the one existing in the topology of August Ferdinand Möbius. This kind of twisting leads to some kind of contiguity between the meanings of close and far and those of the inside and outside, through the same spiral. In the internet environment the user and the object of cultural heritage can be found at the same time everywhere and nowhere.

2. Another kind of penetration into information as well as another way of approaching objects is formed and this has a direct impact on both objects’ classification and the way the visitor of a digital museum can perceive it through a historical and aesthetical perspective. Within the context of digital museum, well-established prioritizations of the artworks being presented no longer exist as in its archives, artworks considered masterpieces may coexist with those being ignored or underestimated, placed at the sidelines of civilization. It often leads its users to experience new relations among artworks which were deliberately hidden from well-established artwork classifications.

3. Art is being democratized since it turns to be a common experience shared by an increasing number of persons who can have access to, process and exchange a greater number of various kinds of information at the same time.

4. The original object turns to be a single part of the whole experience and the connection the person has with it.

Digital reality brings upon the following concern; an image offered by a digital means is read in a totally different way than the image of an object with which there is direct, natural contact since the image offered by a digital means “is invariably a tele-image - an image located at a very special kind of distance which can only be described as unbridgeable by the body” (Baudrillard 1990), extending thus all consequences predicted by Walter Benjamin: “In even the
most perfect reproduction, one thing is lacking: the here and now of the work of art—its unique existence in a particular place” (Benjamin 1936).

Moreover, within the context of the limitless internet space of digital museum, coexistence of cultural objects coming from various places, eras and cultures—often mixed with objects of everyday life, materials and commercials—weakens their historical dimensions. In Fredric Jameson’s point of view “this approach to the present by way of the art language of the simulacrum [...] emerged as an elaborated symptom of the waning of our historicity, of our lived possibility of experiencing history in some active way” (Jameson 1991).

The aforementioned concern is somehow balanced with:

1. The satisfaction resulting from an interactive navigation without spatial and time limits.
2. From the fact that the absence of “right here, right now” a unique value that only the original artwork disposes, is replaced to a certain extent by the offer of a more integrated image of the artwork exhibited.
3. From new experience, aspects and concepts that digital technology can offer regarding the approach of cultural heritage and mainly from the rising of new questions asking for new answers.

“RESIDENCE” IN DIGITAL SPACES OF CULTURAL HERITAGE

Nowadays, analogue pictures of which “Le musée imaginaire” was comprised have been replaced by online, three-dimensional and interactive depictions creating new ways of approaching cultural heritage. Hence, both spaces and objects of cultural heritage “come to life” through a kind of virtual browsing. Today, with the use of special devices (Head Mounted display - HMD) or in CAVE and Virtual Dome environment, immersive environments’ conditions have been developed, namely conditions of the user’s isolation from his external environment. Thus, the user becomes a temporary “resident” of a virtual world. This virtual world seems to take the form of a utopia within the meaning that in three-dimensional space, we can see ourselves where we are not, in a space that is extended virtually. Thus, we perceive ourselves where we are actually absent. In fact, it is a fundamental change in the way we perceive and experience the meaning of space and this affects our relationship with the objects of cultural heritage as well as the metanarrative character of the museum.

The danger existing in this kind of “made” version of the cultural heritage is to create its idealization setting. In fact, this danger becomes more serious, if “ethics” of the society which created these cultural heritage objects within a particular economic, technological and political framework, is not taken into consideration in the formation of a metanarrative speech which this reconstructed reality of the three-dimensional narration is trying to send out. Besides, idealization of historical moments is not something new for the museum. For example, the modernist museum will get a particular place and meaning in the formation of nation states since it becomes the space where their glorious historical moments are promoted.

Another application of digital technology within the museum’s environment is the one known as augmented reality. The aforementioned application offers the user a layer of digital data which complete the real-material world in an indirect way. For example, the Netherlands Architecture Institute has developed the UAR application (Urban Augmented Reality) through which users by turning their smartphones at predetermined city points, can get images of buildings or regions as they were in the past or as they are planned to be in the future. Moreover, there is the MOPTIL’s (Mobile Optical Illusions) application as far as sightseeing at archaeological places in Greece is concerned. By setting this kind of digital device in front of monuments, the visitor has the possibility to see through its screen how these monuments were when they were first constructed and thus, get a complete image of them.
In case of the augmented reality, the user of this digital application is in a constant dialogue and interaction with virtual objects just as happens with the video game Pokémon Go (Figure 2); its users are looking for virtual creatures called Pokémon in the real world. The user is the so-called flâneur, the wandering spectator, and at the same time he turns to be this critic person who will try his own approach “aiming at a higher objective than that of a simple flâneur, at something different from a temporary pleasure of a moment” (Foucault, What is the Enlightenment?, 1984). The problem arising from the aforementioned applications is the fact that the material environment is completed with a single constructed image. Thus, the visitor is obliged to take this image for granted and accept it as undeniable truth. Under this particular concept, the role of the application’s user is quite passive.

In cases of both augmented and virtual reality, the main issue is not only the digital reconstruction of an object having been damaged over the years, but the user’s possibility to have an experiential contact with the various historical, cultural and political layers being connected with the object depicted. Under the aforementioned prerequisite, new technologies would serve the personal research for deep knowledge which will not be deprived of the features of an attractive digital game, a fact which is really important as a wider public of modern museums also looks for “beyond knowledge” entertainment and amusement.

PARAMETRIC REASON AND MULTIPLICITY OF MUSEUM METANARRATIVES
At this point of the research, the question arising is the following:

Can the user with the help of new technologies achieve personal interpretations which can be different, even opposite to metanarratives possibly presented by the museum?

Can new technologies support the museum’s narrations that are receptive to multiple meanings and interpretations contrary to the museum’s modernist metanarratives which aim at presenting eternal and undeniable truths?

Answers to similar questions are given by parametric design. Parametric logic perceives the design or approach of cultural heritage as a question or a set of questions which do not have a single-meaning answer but many equal possible answers since a single change in a single parameter is enough to influence - with a new feedback - the whole information environment. It sets the user free from relations and quantities, from the fetish of wholeness and introduces him to a network of relations among secondary elements and thus, to pluralism and the recognition of values’ multiplicity. Therefore, the development of parametric design is generally connected to the values of postmodernism and reinforces its philosophical background. This means that there is not a worldwide value or a single solution to a problem, hence a global metanarrative, but “clouds of narrative language elements” (Lyotard, 1984: XXIV) according to Lyotard which reflect polysemy of cultural objects, the wealth and complexity of cultural codes.

Although we can easily accept J. Baudrillard’s opinion according to which “nothing inscribed on these
screens is ever intended to be deciphered in any depth: rather, it is supposed to be explored instantaneously” (Baudrillard 1990: 54), we cannot easily deny the fact that new technologies arise new questions. These questions bring to the surface what is likely to exist just in front of us but we cannot recognize it since as I. Calvino says “our eyes and brain get used to choose only what fits in our already tested types of classification”.

CONCLUSION

During the 19th century and when society perceived history -under the scope of the influence of sciences and the Darwin’s Theory- as a continuous line and evolutionary procedure, then the museum turned to be a means for the promotion of a single “truth”, without any doubts and a place where great metanarratives are being unfolded.

When society- through a technical reproducibility of the artwork- sent cultural objects massively to the market for the first time, then “Le musée imaginaire” was born which-as it was already mentioned- became a prelude of the later onscreen and electronic era.

When society entered digital era, the historical narration of modernity was torn apart in various aspects, meanings and metanarratives, a fact that resulted from the possibility offered by digital technology as far as correlation of parameters and variables is concerned. Nowadays, cultural objects are digitized and transferred to a virtual environment while the museum’s visitor can constantly move from one digital environment to another, namely from one culture to another, from one continent to another and one time period to another. As expected, all the aforementioned begun to affect issues that support revisionist trends regarding the role and concept of the museum as the latter was formed during modernity.

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