

Museums, spaces and museographical resources. Current state and proposals for a multidisciplinary framework to open new perspectives.

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ABSTRACT: Two of the main aims of a museum are to communicate its heritage and to make enjoy its visitors. This communication can be done through the pieces itself and the museographical resources but also through the building, the interior design, the light and the colour. Art museums, in opposition with other museums, lack on the application of these additional resources. Such a work necessarily requires a multidisciplinary point of view for a holistic vision of all what a museum implies and to use all its potential as a tool of knowledge and culture for all the visitors.

I. INTRODUCTION: The word museum, linked with its etymological meaning (from Greek, museion), refers to the definition of Museum as the house of the museums, sacred space where the deity of the art live. But where are the museums in the current museums? Are the museums pleasant spaces thought, organized and decorated following the original idea of museion? Do colours and illumination, as well as museological resources, effectively facilitate the understanding of the museum and do they offer a pleasant stay? There is a simple answer: just in some cases.

Whenrevising the evolution of museums along the history we can see that one of the first precedents of the European museums are the cabinets of curiosities [1]. These cabinets were rooms entirely covered with a huge amount of objects, (not only artistic), which had in common its singularity and its scientific interest. The cabinets of curiosities, often organized by the size of the objects, were like a micro-cosmos of knowledge, linked to sovereigns and erudite of the Renaissance. Current museums of history, ethnology and science took the main ideas form these spaces.

In the Renaissance we also find art galleries such as the Ufficci gallery. These galleries recover the idea of the recreation of the sacred forest of the Muses, showing the artistic work basically from aesthetic parameters. These will be the origin of multiple art collections that we can see nowadays with no meaningful changes.

Following the chronological line, the huge conceptual change occurred with what we can call Nation-Museums, which were tutored by the State and linked to the Academy. They had a clear universalistic vocation (to show the world), as well as patriotic (building the national identity). They are innovative in the museological aspects because are organized in fields of knowledge and its didactic vocation. Some examples are the British Museum¹, Hermitage² and Metropolitan³

¹ www.britishmuseum.org

(New York).

The other huge step towards museological aspects became for the concept of Universal Exposition. These expositions clearly had a popular vocation (as a pole of attraction of the mass). The main characteristics of the Universal Exposition are: to foment the idea of exhibition focused on a concept or theme, they were global works of art (for the conjunction between building and content) and that they will have a clear didactic vocation reached by means of the presentation of moving machines, technical resources and explanatory guides. This model in which the visitor and not the work is perceived as focus of attention will be adopted later in the main part of science museums. Museology, has eventually adopted several proposals which in some way, are linked to these original models.

2. CURRENT STATE AND FURTHER WORK: In this article we are focused in aspects such as light, colour, architecture and interior design. In most of the cases there is a big difference in the way that art museums and all the rest (science ethnology, history, etc) show their works.

Most of the art museums that we know are based on the exhibition of art works distributed among several corridors or rooms and sorted chronologically by styles or collections. Light is commonly homogeneous and in such a way that it produces shadows, undesired reflections or simply an inappropriate light either for the work or the visitor. The colour as well as the interior design have in most of the cases (with the exception of those museum which include decoration as old palaces), the aim to be neutral. But is the neutral colour the same for both Warhol and Caravaggio? Furthermore, do the designers of these spaces consider the psychophysical evidences of what a neutral colour is under a perceptual point of view?

Beyond the morphological aspects, the museographic resources in art museums are commonly few and with a low variety. Doubtlessly the resources which are most widely used are text, signs and in some cases audiovisuals. It is therefore difficult in an art museum to find interactive elements or other resources that help the visitor to understand the work, the life of the artist, the style adopted or the techniques used.

In addition to this aspects related with interior design, most of these great art museums are often placed in buildings that, as Le Corbusier said (referring to the museum of modern art of Paris) [2] they establish a disproportionate scale between the exhibition space and the building itself. Moreover, we could say that this disproportion also occurs between the building and the visitor. There are several examples among the great museums, for instance, Hermitage, Louvre⁴, British Museum and Metropolitan of Nova York. In a lot of cases this problem is inherited from an architectural aspects, namely, that the structures in which are placed were not conceived to fit a museum but as a palaces. In other cases, probably for a matter of tradition and megalomaniac, the buildings imitate this typology of palace-museum.

Opposite to the main model adopted by the art museums, we find the proposals originated in the museums of history, ethnology, science and many other cultural centres. Even though there are multiple examples and also exceptions, these museums have worked much more both the morphology of spaces and the museographic resources, becoming centers of museological innovation.

One of the most matured aspects of the science museums, yet from the creation of Musée des Arts et Métiers de Paris (1789), it has been the interactivity with a clear didactic vocation. In front of a steam engine, independently of its historical value, the most important thing will be that the visitor understands how it worked. There are several different

² www.hermitagemuseum.org

³ www.metmuseum.org

⁴ www.louvre.fr

resources used in these museums: scale models, text and schemes, scenographies and interactive elements that allow the visitor to see, touch and understand the way the different elements of the machine worked. This kind of museography places the visitor in the focus of attention inviting him to use not only his sight but also his sense of touch and hearing. Since it offers more ways to learn, more visitors are able to understand the exhibition. These resources produce a change in the morphology of the spaces, because there are more elements to be distributed, the messages must be clear and the spaces need to be comfortable and to invite to the experimentation. Consequently the control of the light, the application of color and the interior design (as long as the building allows it), is deliberately more accurate.

As we have said, not just the science museums treat these issues correctly. One of the paradigmatic examples of museum with an active museography, is the Jewish Museum of Berlin⁵ (2001), which we can consider as a hybrid between the history and ethnology museums. Firstly the continent erects as an attraction and conceptually links with the museum's theme and the interior spaces to build a global art work. The artistic installations integrated inside the spaces reinforce the ideas to transmit with an indisputable conceptual and emotional clarity. The light as well as the colour and the materials used empathize the concepts and influence in the mood, creating a global experience.

In the other way, the museum applies a countless number of museographical resources (scenographies, tactile screens, avant-garde technologies, audible resources, audiovisuals, construction games, writing rooms, etc.), that help to understand concrete aspects such as religion, habits, writing and politics.

The different museographical evolution of these museums has its origin in the museological models commented before, but also in the supremacy of art with respect to other disciplines. It exists the idea in the Academy, accepted for the majority, that art does not need further explanations than the work in itself. Doubtlessly, the power of art resides precisely in its communicative capability per se and in its aesthetic value (which subjectively can like or dislike the visitor). It is also clear that there are communicative aspects in art museums what can be improved to reach a more attractive and comfortable experiences. We must remember that one of the main aims of the museum, as ICOM⁶ states, is to spread its heritage. Nowadays, there are resources enough to reach this aim.

Is in that framework where science can bring its point of view and technology, in order to identify the deficiencies and to bring solutions not only to the art museums but in all kind of museums. A museum should never look like a cemetery or a mortuary, as stated by Marinetti and Cocteau in the futurism manifest of 1909 [3]. It is necessary to study how the visitor perceives the museum the space, the light, the colour and the resources to be able to exactly know where we are and to explore where we can reach. To this aim, it is necessary to promote a holistic vision of the spaces which form a museum, namely, to study all the elements such as light, colours, spaces and designs as the same indivisible concept. Psychophysical studies are necessary in order to detect the real interaction of a space with the human being. To this aim, head-mounted eye-trackers, can be a useful tool to detect what guides people attention in those less conscious processes which involve the examination of an environment. Such a study can be complemented with a statistical study of people's feelings and opinions after visit a museum. Therefore, museologist, psychologist, architects, interior designers and engineers have to work all together to reach a common aim, which is the construction of museum perceptually intelligent and pleasant for the visitors, having always in consideration the integrity of the work exhibit.

REFERENCES:

[1] Iniesta, M. (1994). Els gabinets del món: antropologia, museus i museologies. Pagès editors.

⁵ www.jmberlin.de

⁶ As the ICOM (International Council of Museums) defines, a Museum is a non-profit making, permanent institution in the service of society and its development, open to the public which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment. (1947-2007)

[2] Baltanás, J. (2005). Le Corbusier, promenades. Ed. Gustavo Gili.
[3] Montaner, J. (2009). Museos para el siglo XXI. Ed. Gustavo Gili.



Fig. 1: Left: Jewish Museum. An artistic installation which considers the holistic nature of the exhibition. Centre: the traditional way to exhibit art in the galleries. Picture of the Louvre Museum. Right: Science Museum on London. An example of a museum which seeks an active participation of the visitors thorough the interior design.