

Media Archeology in Architecture, Representation and Simulation of Artificial Natures

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Abstract

The relationship of the human being with the images has become so close throughout the ages, to the point that the image is part of his reality, becoming habitable, the proof are the new concepts of augmented reality and virtual reality, But where can we find the pioneering experiences in simulation and recreation of nature through the creative attitude of the human being?

Keywords: Architecture, media archaeology, technology, media architecture, panorama

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1 INTRODUCTION

Long before the appearance of the movie machines and the triggering of the media like mass diffusion form, the human being already faithfully reproduced pictures of the Nature through the painting and the drawing in big or small supports, being surrounded thus of artificial images filtered by their sensory perception and sensibility. The relationship of the human being with the images has become so close throughout the ages, to the point that the image is part of his reality, becoming habitable, the proof are the new concepts of augmented reality and virtual reality. Architecture and painting were simulation means of nature but also of creation of an abstract image and of a proper concept that human being used in order for forms to become an integral part of their reality adjusting in perspective and points of view, enough think in quadratura, and the trompe l'oeil, that allowed to expand the space and perceive beyond the physical reality.

But where can we find the pioneering experiences in simulation and recreation of nature through the creative attitude of the human being? How does a space become a sensorial experience for the great public? What tools and ingenuity were needed for

reproduced nature in a credible way to becoming a simulacrum?

In 1851 was exhibited at the Royal Colosseum on Albany street, Regent's Park, the Cyclorama of Lisbon, before and after the earthquake of 1755. This spectacle reproduced in detail in images and sounds the catastrophe that rocked Lisbon in the sec. XVIII, using advanced technology as it's referred in the presentation catalog:

“The various scenes of the cyclorama will be illustrated by appropriate music. For this purpose a new and splendid Apollonicon has been erected by Messrs. Bevington & sons, of Greek Street, Soho... This extraordinary instrument has been so constructed as to realize the solos and combinations of a grand orchestre, and to give full effect to the varied character of the Performances. The extensive new apparatus for illuminating this colossal work of art, has been constructed by Mr. Henry Jones, of King Street, Covent Garden.”¹

In the catalog we can find the description of the images that impressed the audience, starting with the following introduction:

¹ Colosseum and Cyclorama, London 1851, 14.

“On the rising of the curtain, the calm and beautiful sea at the mouth of the Tagus at once meets the eye of the spectator, clothed in hazy exhalation; gradually the veil of mist is dispelled, and the sun in all its gorgeous splendour rushes upon the dazzled sight, throwing its golden reflection over the wide and still waters”.²

Later on, the description gets more agitated when describing the catastrophe: “Again the scene changes: and the tremendous effect of that devastating agency, the fearful earthquake, is felt upon the mighty waters; the sky is obscured, and that sea which was before seen in placid serenity, is now driven with fearful rapidity from its course, not rolling with majestic grandeur [...]The effects of this dire calamity on the devoted City: that which before was seen in all its proud and towering beauty, now breaks upon the startled sight of the spectator in its terrific reality a mass of ruins; palaces, the residences of a race of kings or grandees, that one moment before stood in grand array, monuments of man's pride; Churches and Convents, the resort and retreat of the good and pious, public buildings, the grand opera, the most magnificent in Europe the dwellings of the rich and poor”.³



Figure 1. Scenes of Lisbon earthquake.

We can see that it was an elaborate simulation of a natural catastrophe presented through large painted canvases, sound effects, adequate music and lighting. These simulations became common during the 19th's, century of discoveries and curiosity about the role and function of machines, here we find two apparatuses with a connection between the media and the architecture:

Created as vision machines integrated in an urban culture, the appearing of panoramas and dioramas in the late 19th century, allowed a re-dimension of space represented in a multi-optical place on representation. The technique of the panorama con-

sisted in the construction of painting in plans of big dimensions that used to be connected to each other on the sides, doing a circular barrel. Taking into account that the horizon line had a correspondence in all of them, after being painted and coming together all the distortions of perspective, ended in a 360 degrees image, thus creating a point of view for endless plans. The panorama produced an effect non intentional that democratized the perspective and the point of view. In fact, this was the main reason why this system was so successful for almost a century. The panorama appears in a time of huge development from the earth's science and cartography studies, Geology and Geography that allowed to unravel the several spaces of our planet and transfer them to enormous reproductions. So, the faithful representation of long natural spaces in a canvas at 360° made it available for the public in a way that they could not have observed it other way. As a simulator of Nature, the panorama is described in the catalog of the Royal Colosseum in the presentation of the panorama of Paris in the moonlight:

“In viewing this extraordinary Panorama the spectator is to imagine himself placed in a balloon, over the gardens of the Tuilleries as a centre point, on a fine moonlight night. By these means, a most comprehensive view is attained, and no object of interest lost: here a most perfect scene of illusion presents itself; no person can contemplate the fleecy douds, the twinkling stars, the ripple on the water, even the fountains may be imagined real, and the various effects of light, without being struck with amazement, and without wondering how so faithful and extraordinary a representation could be accomplished.”⁴

² *ibid.*, 11.

³ *ibid.*, 3.

⁴ *ibid.*, 9.



Figure 2. The Panorama cut section.

The purpose of the panorama was to reproduce the real world as detailed that the spectators had the feeling that what they were seeing was real.⁵ Although the techniques of *trompe l'oeil* were known for centuries they were not enough to create the total illusion of reality. The new painting techniques that allowed to create the ideal conditions to simulate the outer reality. As Walter Benjamin states “it was relentless the commitment that, through technical strategies, one could make the panoramas into a perfect imitation of nature”.⁶

There is an inseparable connection of the panorama apparatus as a media phenomenon and the architecture that starts in the form and specific drawing of the building, which is fundamental in the presentation of the panorama, the same apparatus determined and conducts the morphology of the building, firstly by the exhibition space, a giant barrel where the image is projected, following the specific study of light entrances, to simulate a natural illumination of the panorama and finally the space paths with the conditionings for an exhibition and clear perception of the exposed image. The integration of the apparatus mediates the building and becomes imperative so the illusion may happen, as is referred by Oettermann “The art of the panorama, the painting can’t be separated from the environment to which it is exposed to, as to show the right

environment, a new way of construction had to be conceived.⁷

The diorama, as a visual experience, consists on the overlap of painted glass individually enlightened creating mutant images with the variation of light entrance. It started being presented in small transparencies painted at water paint and projected by a stream of light by Franz Niklas Konig with the name “diaphanorama”.

Later on, Louis Jacques Mandé Daguerre (1787-1851), a French stenographic painter, enlarged to huge scale the transparencies and built a space of his own calling his device diorama. In 1822, Daguerre presented in Paris his popular entertainment show, where the audience must go through a dark corridor ending in a round room with countless sitting spots to get to the diorama. When one got used to darkness, a curtain was opened revealing a huge canvas of 7x6m, painted with a landscape. For ten to fifteen minutes, the spectators could see the passing of time: the day turned into night through light effects using light bulbs placed ahead and back linen painted canvas and placed into a tunnel shape. The deepest ones were enlightened by sunlight controlled by windows, shades and coloured curtains. Depending on the direction and intensity of the light manipulated, the scenario seemed to change, turning the scenes very similar to reality. After finishing the first presentation, a bell would ring, curtains would fall and the platform where 300 people were sat, would slowly spin around to a new scenario where the process was again to be initiated.⁸ As it happens with panoramas, and in that measure also that diorama needed a particular space with specific characteristics, the morphology of the building was designed with a central body of two or three arms where all the apparatus for visioning was placed. A mobile roundabout allowed the platform with the audience to spin to each arm. In fact, the diorama as drawing was conditioned to the characteristics of the performance presented in terms of access, reception and natural light control. Considering the diorama an architectural intervention directed to the media, this dynamic element turns into the urban culture of the 19th century. We can almost consider it transient, because it will disappear with the birth of the cinema.

⁵ S. Oettermann, *The panorama - history of a mass medium*, London 1997.

⁶ Walter Benjamin, *Passagens*, Belo Horizonte–São Paulo 1935, 333.

⁷ Oettermann, *The panorama*, 51.

⁸ *ibid.*

2 CONCLUSION

The will and the curiosity to reproduce, simulate, recreate environments and immersions is intimately connected to the human being, the processes and techniques applied yesterday and today only differ in level of technology and detail, so close to the real image. It is evident that the impact of the *old* media had in the architecture and urban societies from the 17th century on. The experiences here shown, witness only some of the possibilities and changes of the architectonic space, with the inclusion of media technologies and the importance of media I in architecture as an element that increases and stimulates perceptions in space similar to the ones we see today in urban spaces through new technologies. The connection of the media to architecture seems to have been tested undoubtedly in the last two hundred years when the mass shows have a fundamental role in urban culture and architecture itself that transforms through the media configuration. The experiences made in the past become examples of the impact that images that involve architecture place in the human being and the way they turn into perceptual experiences. Many other examples could be set to reinforce as the media integrated in architecture, as stenographic machines of fireworks in the 18th century or the ephemeral architectures that during the huge royal festivities would set up in the public space to a visual acknowledgement of the population. The growing technological development in the area of image and sound turns the media today into a new material that is transforming the way we do, see and experiment on architecture. The proposal of the kinetic architecture, technological and sensorial media, with direct connections to the human being, is a reality today with new technologies and experiences that are mirrored in the psychological and neurological of the human being. A tectonic structure that responded to sensorial impulse can have unexpected results in the public and private life of the individual as we have already assisted to. It is also very rewarding to understand how the potential and the use of technologies are working at a huge scale and also understand as it may affect and condition the human being in the relation with the evolving space and the external realities in and out of the vital psychological spaces. The interaction between

architecture and the media with the human being is a field of investigation to explore more profound Psychology, Neuropsychology, Imagiology, Design and Digital Creation.

