THE ARCHITECTURE OF VIRTUAL SPACE MUSEUMS

Anda-Ioana Sfinteș, PhD c. arch.
University of Architecture and Urbanism „Ion Mincu" Bucharest, Romania

Abstract:

Using the internet is more than a trend if we are to acknowledge the fact that it does not only shape its users, but it also reflects the changes that take place at a social level through everything that the user itself gives back to the network, through users interactions in virtual space, through consumption and demands virtually stated etc. As we pass from searching to sharing, playing or shopping on-line, we realize that between these theoretically distinct actions the boundaries blur. We identify this movement towards unclearness all around us and more and more profound lately (for example, in *guerilla* theatre or multifunctional buildings). In this context, *the virtual museum*, *eMuseum* or *online museum* are exhibition forms that further expand, blur, interweave defining characteristics of the museum with other kinds of activities not rarely considered opposed to it.

Many museums have already added up to their physical exhibitions virtual tours or on-line exhibitions (some even created especially for the internet). The experiential differences between on-line/on-site museums are many and important, answering to different needs. However, all the more so as we admit that, by visiting an exhibition, we do not only experience the display layout, but also the space itself, we can further ask ourselves what happens with the curatorial discourse and architecture in virtual space. The aim of this article is to find a response to this question by analyzing the place, role and impact of architecture in the case of virtual space museums.

Key Words: Museum architecture, virtual space, discourse

Introduction

Nowadays, we tend to search for everything firstly on the internet. It's easier, faster, more convenient and, depending on the website, it can also be quite reliable. The ceaseless technological upgrading facilitates the access to more and more complex information, but also to better communication and interaction activities which further became social demands and needs. Museums developed their websites in order to accommodate these facilities and even implemented their own programs which better responded to their new related missions (like, for example, those of addressing themselves to a broader audience, of allowing interpretation and negotiation of meaning and of becoming community involved). The ongoing *Taking Part* survey ("Taking Part 2012/13 Quarter 3: Statistical Release" 2013) shows that, in the case of museums, the digital engagement grew to 29.9% from 15.8% in 2005/6 and that the online visitors have been interested especially in finding out information about exhibitions, events and particular subjects, in ordering tickets and taking a virtual tour. These all new available features and their popularity further raise questions about expectations, goals and better forms of communication between museums and their visitors: *what do museums wish to offer and what do visitors wish to discover*? In this context, we wish to interrogate the role that architecture yet plays and the way in which is hence uses, presented and understood.

The blurring of the boundaries between leisure / education / consumption transforms the museum websites into places of (re)presentation / information / exhibition / marketing / kindling. As the compounding elements of the museum as an institution accumulate diverse meanings and purposes, the virtual space augments this trend through the various possibilities of utilization it offers. Museum websites can awake curiosity, encourage socialization and community involvement etc. Architecture can also be exploited differently (and partially it is), and uncovering its role in virtual space can lead to further developments which could help museums accomplish their newest established goals.

Museums on the web

Museums gradually went from being the institution dedicated to the acquisition, preservation, conservation, research and display of human life vestiges to getting involved in the life of its visitors, crossing over its boundaries in an attempt to face constantly changing social, economical and political needs and desires. As Susan Crane states, the museum and its contents are even being shaped by these changes (Crane 2006), as we can see, for example, in the case of museums dedicated to communities (like immigrants for whom creating their own representational space means creating a benchmark, helping them to adapt to a new society while keeping their old values alive). Anyway, blurring the boundaries also meant expanding the museum branch to include enjoyment and social work activities, as well as interpreting the idea of museum in order to incorporate more conceptual, objectless, interactive and virtual exhibitions. Sharon Macdonald edited *A Companion to Museum Studies* (MacDonald 2006a) issuing from the expansion, in range and variability, of museum events and programs and from "the development of museum «franchises», «blockbuster» shows, iconic «landmark» architecture […], «superstar» museums […]) and «meta-museums»" (MacDonald 2006b, 5) which must not only be understood as identity statements but also as activities aiming to be spectacular, promoting culture and symbols in the context of globalization.

Virtual space museums take all these preoccupations even further while adding up their own aims and purposes. The evolution of museum concept and curatorial practices – the opening up towards a wider public, the shifts that took place from *old* to *new museology*, from simply displaying objects to introducing a narrative discourse and allowing the subjective interpretation of the exhibitions (see Fleming 2005, Psarra 2005, Hillier and Tzortzi 2006, Giebelhausen 2006), from considering the visitor as neutral and passive to his contemporary central and dynamic importance for the curatorial discourse (see Bollo and Dal Pozzolo 2005, MacDonald 2006b, Hooper-Greenhill 2006, Ravelli 2006) – all these led the way to go online. Museums started creating their own virtual pages and further to organize virtual tours and exhibitions, to see to their own blogs and to send and receive feeds in order to keep themselves and their public informed and up to date. Thus, the visitor can now participate not only physically and psychologically at the negotiation of meaning through "constructing, sharing and interpreting a range of content, attitudes and values" (Ravelli 2006, 3), but also virtually.

In this train of thought, we can also refer to the social work of museums as many of the online programs developed extend the support offered to the individuals and communities related. What prevails in this case in the virtual space isn't necessarily engaging with the exhibits, but with the others, let it be the museum personnel or other virtual visitors. Lois Silverman stated in *The Social Work of Museums* (2009) that museums serve the self, the close pair, the family and the group. Some of the ways of serving still remain valid online. For the self, for example, visiting a virtual museum might also facilitate relaxation and introspection (although less intense than in the case of an actual visit), but programs concerning health education, public health mobilization, enhancement of health care environments and public service, promotion of stability, support for change, social consciousness, religious and spiritual tolerance can easily be doubled online, promoted and even explained more thoroughly, encouraging participation and interaction (through comments) when possible. Communication, affiliation and membership, role enactment, personal storytelling can all even be enhanced online as former barriers fall (like those concerning physical distance or the reticence of opening one's mind to someone face to face) while others rise (coming, for example, from the uncertainty and mystery in which the others are being entangled, thus from the psychical distance). The same happens for the group: the virtual museum offers resources for public communication, promotion of civic engagement, consciousness-raising, representation, intergroup contact and service, multigroup collaboration. The virtual space emphasizes the idea of museums as "public spaces in which definitions of cultures and their values may be actively contested and debated" (Mason 2006, 18).

Anyway, not many of the online museums have also features implying human interaction. Some only concentrate upon presenting the institution, the collections and exhibition. Here we can also make a distinction between the interactive sites which make available virtual tours or objects and information self-handling and those which do not. The more complex a site is, the more we can talk about its role in a broader context. Michelle Henning (2006) advocates for the role of new media in organizing and structuring knowledge, in inverting the hierarchies between front and back regions of the museum. Although she refers mainly to the new media devices which accompany the actual

exhibit, frequently the same digital information (like database images, recordings, texts) can also be consulted online. Having access to such information may facilitate the self organization of museum collections according to preferences, desires or needs. The institutions thus renounce to their "traditional authoritative voice" and "break down disciplinary boundaries and hierarchical systems of cataloguing" (Witcomb 2003, 121). Henning also concludes that new media objects can model "ways of thinking and understanding which are non-hierarchical and decentralized, and privileging allegorical and arbitrary associations, correspondences, and resonances" (Henning 2006, 315).

The true challenge of virtual museums is still at its beginning. Although the sites keep evolving, the same do the demands addressed to them. Ross Parry concludes at the *Museums in the Information Age: Evolution or Extinction?* debate, held at The Science Museum in London in 2012, that the future of museums in the information age will be *social*, *situated*, *sensory* and *semantic*. By *social* he refers to ultra-socialization and personalization, by *situated* – to providing specific content to the visitor based on his location, while *sensory* raises concerns about the changing relationship between humans and digital world, making it necessary for the museums to recognize and use accordingly the blurring of the boundary between digital and not-digital. The *semantic* evolutionary direction alludes to the ability to make online connections between items.

Museum architecture developed as well, in line with all the fundamental transformations of the institution. The shift from *old* to *new museology* also meant changing architectural form, purpose and concepts "from public monument to spatial experience, from scientific centre to popular destination and landmark, and from forming a social event to shaping national and cultural aspirations" (Psarra 2005, 81). The subsequent shift towards virtual museums will clearly put architecture in a new light. In this context, we wish to investigate, first of all, the role that architecture currently plays online for museums, opposite to the interplay between space and curatorial discourse on-site. The aim is that of spotting current strengths and weaknesses and thus to discover opportunities for further development. Anyway, it is clear now that in the center of any approach concerning museums will continue to be the individual as *user*, *audience member*, *learner*, *customer* (Parry in *Museums in the Information Age: Evolution or Extinction?* 2012), visitor, consumer.

Museum architecture in virtual space

By such comparison between the real and the virtual form of the same space we have to actually ask ourselves what is being gained and what is being lost by passing from one to the other. We best acknowledge the impact and importance of the real feel when the physical presence or absence strikes us (see Lawson 2001). Daveen Koh, a *Cornell Daily Sun* blogger, describes his revelation as follows:

> I remember being in a roomful of Monets at the Metropolitan Museum of Art this past summer, and all I could think of was that I was in a **roomful** of Monets. And perhaps, the hordes of tourists, saddled with large cameras, felt the same excitement. We were in the company of the famous. **We were standing on sacred ground.** (our emphazis, Koh 2012)

We thus see not only the role played by the physical presence of objects and people in inducing a certain morale, but also the reference to space: the feeling of a **roomful** of Monets and saying that you stay on **sacred ground**, they both come clearly from the strong relationship between the paintings and the room they occupy. Anyway, we aren't necessarily aware of the impact that the built environment has upon us. We do experience it, but our reaction to it is rather unconscious, affective, subjective, associative and contextual (see Moore 1979, Rapoport 1990 and Psarra 2009).

In order to identify the role of architecture in on-line museums we shall first of all review the on-site connections between exhibits and built environment. The *space syntax* theory seeks to uncover the interrelationship between spatial configuration and display and its impact upon the visitors' route, exhibit experimentation and interpretation (see Hillier and Tzortzi 2006). Kali Tzortzi (2007) questions the junction of curatorial decisions and space. She states that a) space can be exploited in order to amplify the display; b) the layout of objects can emphasize the spatial characteristics; c) space can be neutrally treated. Either way, space is being experimented as well, beside the exhibit, and it influences the subjective perception and interpretation of the museal space.

Some of the questions that Bill Hillier and Kali Tzortzi (2006) pose in regard to spatial design vs. museum layout change online, while others vanish. It doesn't make sense anymore to ask ourselves if the spatial design does "make a difference to how a gallery works as a social space" (Hillier and Tzortzi 2006, 282) as long as the halls of the museums are empty and frozen in the virtual tours. As for the experience of visiting (if we can still consider it an experience), can we say that the spatial

organization into sequences shape that experimentation and influence the further movement? At least, this last question isn't entirely out of place online, as long as the sequences of virtual tours are even easier to detect and the movement isn't bound to an itinerancy anymore. Anyway, the *space syntax* theory represents a good reference point in identifying the changing role of architecture in virtual museums. Starting from one of the two basic ideas of the theory – "space is not just the *background* to human activity and experience, but an *intrinsic* aspect of it" (authors' emphasis, Hillier and Tzortzi 2006, 283) – raises the first challenge in our inquiry, the answer to the question: *is the architecture of virtual space museums only a background*? To answer that, we shall first of all review the forms, aims and impact of museum architecture online.

David Fleming (2005) wonders where does the museum space begin and ascertains that "[t]he whole point of marketing and publicity, and image-building and branding, is to prepare people to make contact with a museum" (Fleming 2005, 55) Thus, he uncovers the idea of a psychological space of each museum in which you enter way before the visit, or even before deciding to take the visit. As an extreme example we can take the excessively marketized *Guggenheim Bilbao*. As a cultural facility, housed inside an iconic structure, the museum had the role of enhancing Bilbao's visibility and value at an international level (Plaza, Haarich, and Waldron 2012). The image of the spectacular building designed by Frank Gehry has been heavily used by mass-media, thus creating a very good name awareness not through artworks but through architecture (Caldwell 2000). Even on the http://www.guggenheim.org/bilbao main page, the cover photography depicts a general exterior view of the museum, accompanied by few lines praising the uniqueness of the structure. The purpose of using the image of the building has been, first of all, an economical one, aiming at attracting tourists and investors capable of renewing the city. Through these images, people got familiar with the museum even if, at that time, they had no intention of visiting Bilbao or the *Guggenheim*. Similar examples of museums presenting the history and architectural concepts of their iconic building are: *The Jewish Museum* in Berlin, designed by Daniel Libeskind (http://www.jmberlin.de/main/EN/04-About-The-Museum/01-Architecture/00-architecture.php), *Tate Modern* in London, designed by Herzog & de Meuron (http://www.tate.org.uk/about/who-we-are/history-of-tate), *MAXXI – The National Museum of the 21st Century Arts* in Rome, designed by Zaha Hadid (http://www.fondazionemaxxi.it/museo/progetto-architettonico/?lang=en) etc. Less extreme is the case of any other virtual space museum which presents, on its own website, images with the building and the exhibits, wishing rather to make the future visitors acquainted with the museum and not to sell itself through architecture.

Another way of presenting the physical image of the museum online is through the virtual tours. Much more elaborated and detailed than the simple images, the virtual tours offer the possibility of moving throughout the exhibition halls, of zooming in and out, of looking around, up and down, dependent on the available technology. This facility allows access to the museum halls and collections to anyone who possesses an internet connection, the adequate hardware and software and, last but not least, the skills to manipulate the programs employed. Thus, although the virtual tours are spatial boundary breakers they can also limit access for certain people. Lianne Mctavish (2006) analyses the experience of visiting an online museum and she notes as strengths the transgression of physical boundaries by jumping between halls and floors and the absence of coercion when it comes to following a path. On the other hand she acknowledges the limits of the dynamic movement offered by virtual reality museums, as you have to choose your place from preset positions. A very important aspect in online museums is that "[v]irtual viewers are offered a limited bodily experience, which stresses visual (and occasionally also aural) perception." (Mctavish 2006, 233) Anyway, this compensation is rather contradictory. On the one hand, the empty halls, disembarrassed of the others, their behavior or their remarks, stress the individual engagement with the objects displayed, but on the other hand they neglect the role the others play in understanding, learning, socializing etc. In the same time, the space recreated online is elusory and, by being emphasized, it actually draws the attention from the objects towards insignificant details. The result is that "[a]s details take precedence, the main subject of virtual galleries becomes less clear; distinctions between foreground and background are blurred. The boundaries of art works are implicitly questioned" (Mctavish 2006, 231).

In the physical space of museums, the interrelationship between architecture and curatorial discourse is being assessed depending on "fundamental spatial qualities – such as, hierarchy, axiality and perspective – and key configurational properties – as, for instance, *integration*, *connectivity* and

control" (author's emphasis, Tzortzi 2007, 72.7). Hierarchy, axiality and perspective are less opened to interpretation online. The lack of movement liberty, except between fixed points, blurs the visitors' own searches and discoveries and it hinders the shaping of a full spatial understanding. It is also harder to get a sense of orientation through the mediation of mouse clicks. Sophia Psarra asserts that "*the relationship between geometric and spatial properties can be understood as based on the varying degree of geometrical control over the potential for variance in the structure of visual fields observed with bodily movement*" (author's emphasis, Psarra 2009, 227). Online, the bodily movement, as well as the visual fields, are mediated and limited. If we also consider the lack of human scale and the lack of temporal dimensions usually mediated through the narrative (see Silverstone 2002), we see that the sense of space and time are both distorted. However, the curators have the chance of framing online the perspectives, installations and objects that stress the most the curatorial desires and discourse. Integration and connectivity are being limited as well and bound to the same fixed positions. The sudden pass from one point to the other cancels the fluency of the physical space. The liberty of not respecting a certain path and of jumping between halls gives much more control to the virtual visitor, but it also makes much more difficult the understanding of the general layout and the perception of spatial characteristics related to it. We can thus say that museum virtual tours rather emphasize the objects by themselves. For example, *The National Museum of the Romanian Peasant* in Bucharest has a curatorial discourse based on the relationship between the layout of the objects and the spatial configuration (see Sfinteş 2012). The visual and spatial integration complete the search driven narrative discourse (see Bernea, Nicolau, and Huluţă 2001). It is obvious that the creators of the virtual tour (http://www.tur.muzeultaranuluiroman.ro/) tried to catch, in images, the interrelationship between halls, *strong*/*weak* objects, installations and space, but frequently the spatial characteristics (like the narrow spaces) led to unpleasant skews which actually harm the reading of the space. Consequently, the attention is driven towards objects, separately. *The Smithsonian National Museum of Natural History* in Washington D.C. (http://www.mnh.si.edu/vtp/1-desktop/) and *The Louvre* (http://www.louvre.fr/en/visites-en-ligne) in Paris both have great panoramic virtual tours, with high resolution images, but they still cannot be compared with the dramatic physical experimentation of space and exhibition. This only comes to emphasize the fact that virtual tours aren't meant to substitute the actual visit, but rather to bestir curiosity and to better prepare the visitor for it, as "[t]he emotive experience of seeing the real requires the real and no surrogate will do" (Knell 2003, 140).

However, there are many examples of well established museums which do not offer virtual tours. Instead, they oriented themselves towards social networks. Particularly important in our analysis is the video streaming on YouTube. Short videos, eventually available also on the museum website, present different aspects of the exhibition, sometimes better capturing architectural details and the curatorial decisions regarding the relationship between space and layout. Adding sounds and speeches related to the images, the short films augment the degree of understanding as wished by curators, while diminishing the freedom of movement, albeit limited, available in the virtual tours. However, although you can get a better sense of spatial characteristics (because of the skew correction, the human scale, the various perspectives upon the same objects or installations), orienting yourself can still be difficult as you no longer have access to a larger context. A few museums using video streaming on YouTube are: *MAXXI – The National Museum of the 21st Century Arts* (http://www.youtube.com/user/MuseoMAXXI), *Musée de Quai Branly* in Paris (http://www.youtube.com/user/quaibranly) and *The Jewish Museum* in Berlin (http://www.youtube.com/user/jewishmuseumberlin). They all have videos taking into consideration (on various degrees) the building as well. Although it might be perceived rather as background, it cannot be ignored, thus contributing to a more thorough understanding of the exhibition. The enactment can even highlight less obvious aspects and encourage new readings.

Conclusion

The museum evolution towards new forms and concepts is regarded by many with fear and seen as a decline and an alienation from the main purposes of acquiring, preserving, conserving, researching and displaying material and immaterial evidences of human life. Entertainment and consumption become key features, interfering "with the purity of the cultural experience" (Fleming 2005, 59) and transforming the museum into "a place in which culture is exploited in order to create turnover" (Lampugnani 2006, 252). Online museums don't go far from this trend, promoting entertaining and commercial events, but they also extend their limits virtually thus making their

exhibitions and activities known to a broader audience. On the other hand, we saw that online the individual engagement with the objects can even grow and the exhibits can regain their central position. Clearly the on-site experience still has major advantages compared to the on-line visit, but depending on each one's needs that led to accessing virtual space museums, different features can be found helpful and even lead to the later (re)turn to the physical space. In other words, as Michelle Henning says, "New media's greatest promise is to be found […] in the part it plays in a return to curiosity" (Henning 2006, 316). We cannot expect from virtual museums to be able to replace the actual experience, but we also cannot ignore the opportunities they offer, from reaching people unable to physically visit and keeping their public informed to putting their collections into a new light and expanding their goals and missions far beyond their physical reach. Going online is a "win some, lose some" situation. The question that rises then is: *how should the virtual space be exploited in order to offer a unique, diverse experience, related to the aims of the institution and to the needs and expectations of its online visitors*?

In this article we concentrated upon the architecture of virtual space museums. We saw that pictures depicting the building are used on the internet in order to familiarize the future visitors with the building or to create a better name awareness through the connection established with the iconic structures (when the case) rather than with the works of art. Virtual tours get closer to illustrating the whole experience of visiting (objects, display, space, layout etc.), bur the difficulties encounter in manipulating the software, the limited quantity of information made available due to economical reasons (less objects presented) as well as the technological deficiencies are real drawbacks. Based on the above analysis, we consider that architecture and its relationship with the exhibition are best understood in videos. In this case, even if we do not have access to the whole museums but rather to small areas, the presentation is usually better detailed, which makes the reading more thorough. The producer/curator has the opportunity of choosing the best angles for an object or an installation, by contrast with the spots, capturing the most information in a spin, used in virtual tours. Anyway, the reasons for entering a museum website may vary greatly, as the reasons for searching museum architectural instances online. Different features answer different needs and sometimes we need to see the same aspects from different angles for a better understanding. As long as architecture is an intrinsic aspect of "human activity and experience" and not just a background (Hillier and Tzortzi 2006, 283), maybe we should try to capture it and its interaction (influence and transformations) with humans online also. Further online programs and upgraded virtual tours might incorporate, for example, sounds taken from the site (and we shall acknowledge the fact that sound is very important in reading space), human scale and interaction, panoramic views which better transform 2D images into 3D and 4D. A good example to follow might be the games industry which already developed online games with real time human interaction, but this idea itself could steer long debates as museums have to continually negotiate their "proper" (Mctavish 2006, 229) social role.

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