Visiting and Learning: The Museum Becomes Immersive

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Abstract: The mission to collect significant and valuable objects and to preserve them in a specially dedicated place, assumes various and different characteristics over the centuries. Nowadays the museum, from a privileged place of conservation and exhibition, is increasingly establishing itself as a powerful medium of social communication and commercial and tourist enhancement.

Key words: Exhibition design, visitors’ experience, multimedia.

1. Introduction

The mission to collect significant and valuable objects and to preserve them in a specially dedicated place, assumes various and different characteristics over the centuries: if in classical era the word “mouséion” represented the temple where the muses, protectors of the arts, lived, later it meant the place where objects were conserved for educational purposes and at the same time for glorification of the reigning dynasty.

In ancient Rome, private collections, consisting mainly of art works and spoils of war, were exhibited in public places such as thermae and fori; in the middle Ages, the church played the role of institution devoted to the preservation of religious art.

In humanism period there was a transformation of collecting into an erudite and encyclopaedic phase: private collections were placed in the study rooms of noble palaces. Between the sixteenth and seventeenth centuries a kind of so-called “scientific” interest that collected instruments, stuffed animals, and anatomical findings spread.

In the eighteenth century, gentlemen and noblewomen made long trips abroad for the purpose of knowledge, the so-called grand tours, where they had the opportunity to admire the most famous collections in Europe. In this way the awareness of the importance of these collections for education and knowledge of science and the arts grew.

While until the 18th century the collections were private and were open to scholars, artists and visitors only by invitation or on request, towards the middle of the century many lords and private owners, in order to avoid the dispersion of their collections, gave rise to public donations; thus in 1753 the British Museum in London was founded [1].

2. Evolution and Mission of the Museum

However, the public character of the collections became established with the French Revolution and with the opening in 1793 of the Louvre, proclaimed Museum of the Republic. All men, without distinction of census or class, had the right to admire the masterpieces of art. The monarchies and aristocracy collections were then confiscated and declared property of common people. The collections became public throughout Europe: in 1796 the Natural History Museum in Paris was founded, in 1797 the Kaiser Friedrich Museum in Berlin, in 1824 the National Gallery in London, in 1830 the Glyptoteca in Munich, in 1840 the Hermitage in St. Petersburg, in 1846 the Victoria and Albert Museum in London.

Beside the museums of art, the museums of ethnography and ethnoLOGY, the museums of science
and techniques and those of decorative arts were founded; the latter under the influence of universal exhibitions (especially the 1851 one).

The architects of the first public museums were inspired by classic models: galleries often arranged around a patio, entrance hall, almost always with a central plan and surmounted by a dome. The explicit reference was to the Greco-Roman world, preferring geometric compositions inspired by the simple shapes of the cube and sphere.

In antithesis to the classical reference, on the occasion of the 1851 Universal Exhibition in London, new perspectives were opened up, paying particular attention to the ways of lighting museum spaces: Crystal Palace by Paxton, Fox and Henderson proposed a structure entirely in iron and glass to exhibit artefacts, new machines and artistic objects.

At the beginning of the twentieth century there were many proposals that developed innovative solutions. In 1930 Le Corbusier proposed the concept of “Musée à croissance illimitée”, a standardized construction on a square module made up of repeatable elements that could solve problems of flexibility and expandability. Karel Teige argued that the modern museum should reflect the organization of its interior spaces in its architectural forms. In 1939, Philip Goodwin and Edward Durell Stone realized this concept in the Museum of Modern Art in New York, proposing a vertical organization of spaces in the form of a skyscraper. Their construction involved several floors without dividing walls and had a facade similar to that of office buildings. There was no predominant axis of composition, no monumental entrance, and the exhibition spaces were large open floors which could be organized according to the needs of the moment [2].

In antithesis to the flexible and expandable museum, the last century is marked by a number of impressive achievements: Guggenheim Museum in New York by Frank Lloyd Wright (1943-1959), Kimbell Art Museum in Fort Worth by Louis Kahn (1966-1972), the High Museum in Atlanta (1984) by Richard Meier.

In the eighties the museum became more and more an urban landmark, a strong sign of those who designed it, and at the same time it became a place of social entertainment, visited not only by scholars and art lovers, but by a lot of people, leaded by curiosity for a new “product-container” of culture. This attitude is very clear in the National Museum of Modern Art at Georges Pompidou Centre in Paris (1977) designed by Renzo Piano and Richard Rogers: the art museum is integrated into a cultural complex that includes library, cinema, theater, temporary exhibitions, industrial design, music and a panoramic view on the city accessible through escalators in a glass tube. The complex has transformed the public square in front of it into a pole of attraction for international tourism.

In summary, what has been said above demonstrates how a profound innovation in the distinctive features of the museum has given rise to significant changes in the typological evolution that the critics have indicated in the following typologies:

- museums of the first generation: usually noble palaces with collections grown over time, then open to an increasingly wide audience, with typological characters unrelated to the museum function gradually acquired;
- second-generation museums: specifically created in new buildings or through the renovation and redevelopment of existing buildings, created with precise guidelines;
- third-generation museums: basically museums of contemporary art, characterized by the desire to exhibit masterpieces and events, sometimes even three-dimensional and multi-sensory, and therefore designed to create a symbiosis between exhibition event and architectural forms, with a strong symbolic accent;
- fourth-generation or the latest generation museums: open-air museums, museums of the territory, eco-museums, mainly organized to present topics and objects related to the culture and history of
a territory, in open and closed spaces using infrastructures and buildings belonging to a symbolic context (for example the village, the city, the park).

3. The Museum Nowadays

Today the museum, from a privileged place of conservation and exhibition, is increasingly establishing itself as a powerful medium of social communication and commercial and tourist enhancement. It is not surprising that the museum also offers public spaces, similar to urban squares or malls with restaurants, cafes, shops. Guggenheim Museum in Bilbao and Tate Modern in London are examples of how an architectural icon with a museum function has been able to transform entire districts that had lost their original function linked to industry, into a place able to attract millions of visitors [3].

Concerning interior spaces, the attention is increasingly focused on offering the visitors significant spatial experiences, in addition to the exhibit of the collections; in this sense the variety of interior spaces both in dimensions as in forms, the relationship between interior and exterior, become important. From this point of view, where the scenographic aspects contribute to improving the visit, the use of natural and artificial lighting and their effects become an integral part of the exhibit design project.

In recent years the space of the museum has had to be organized to accommodate the manifestations of contemporary art, which diversifies in form and size (from small to giant works) and techniques (from traditional to immaterial). The museum today deals with the most different forms of art and topics, so there is the problem of exhibiting different objects in the same building and explaining their content to a wide range of visitors different in age and cultural education. Therefore, the role of communication through technical devices and supports becomes of primary importance, with repercussions on the interior organization of the museum and the visiting routes [4].

The relationship between visitors and exhibited objects of any kind is characterized by the curiosity to see, touch and know new arguments for personal enrichment. The role that the architects play is to create an architectural space able to generate a new type of visiting within it.

The vocation to tell stories is inside all museum collections and thanks to new technologies, it is transformed into digital storytelling, the objects come to life, have a voice and tell stories that help the involvement of the public, of any age and education. So the museum routes are enriched with multimedia systems, interactive tables which make the visitors live experiences enriching the visit, with the aim also to overcome the boredom that can often occur among the museum spaces. Museums are increasingly focusing on the visitors’ experience: the visitor in the center before, during and after the visit. Internet, social and mobile devices are today the main information channel where the visit is prepared, and more and more often where the tickets are bought. Audio guides allow visiting a place of culture in perfect autonomy. However, they have several limitations: they use predefined routes and provide standard information to all visitors. To overcome these limitations and make the visitors’ experience more personal, many museums use technology that takes advantage of the user’s proximity to a point of interest to send contextualized information. In other words, if a visitor needs more information about an object, he or she simply needs to get closer to receive extra content on his or her device. After the visit, socials become the place for sharing the experience. Technology allows visitors to build their own routes, up to the possibility to keep track of it thanks to applications for sending via e-mail the route taken.

4. Exhibiting Wine: Two Museums in Comparison

While in the past museums were mainly interested in collecting and preserving rare and precious objects, today institutions aim to become places where
“experiential products” can be enjoyed: smells, colours, sounds, animations and interactions are part of the exhibition.

The nineties of the last century were characterized by the explosion of wine tourism. Some wine cellars were enriched with works of contemporary art which accompany the moments of tasting, others entrusted to archistar the project of the building where the wine is produced: Mario Botta and Renzo Piano in Italy, Christian de Portzamprac in France, Zaha Hadid and Frank O. Gehry in Spain. In the main wine regions of the world wine museums where established; among them we can mention Koutsoyannopoulos Wine Museum in Santorini, Greece, California Wine Museum in Stanta Rosa, Macau Wine Museum, Port Wine Museum in Porto, Portugal, Wine Museum in Pleven, Bulgaria, Vivanco Museum in Rioja, Spain, Desmond Castle and International Museum of Wine Exhibition in Cork, Ireland.

I recently had the opportunity to visit two wine museums, true icons that attract wine lovers and not only: WiMu acronym for Wine Museum in Barolo which tells the story of the most famous wine of Langhe territory (UNESCO World Heritage Site) in Italy and the Cité du Vin in Bordeaux, France, a large theme park dedicated to wine in a more general sense. The two museums are located in two completely different buildings: WiMu in a castle in a village surrounded by the hills where the wine grows, the Cité du Vin in a new building in the city along the river. Both, however, provide the visitor with an experience which culminates in the tasting of excellent wines. The so-called edutainment concept—combination of the words education and entertainment—is applied.

4.1 WiMu in Barolo, Italy

Since 2010 the museum occupies the entire castle of Barolo, Carlo Tancredi Falletti and his wife Juliette Colbert’s holiday residence. WiMu is a museum designed to impress the visitor emotionally and entice him to know the secrets and peculiarities of Barolo, a wine which has been known in the main royal houses of Europe since the nineteenth century (Fig. 1).

After crossing the entrance what strikes is the colour of the walls to symbolize that the wine will accompany the visitor along the tour. An elevator in glass and steel with a circular shape leads from the reception to the top floor where there is the access to the viewpoint which puts the visitor in direct visual contact with the hilly landscape where the wine is grown.

The Swiss architect Francois Confino has created a museum route consisting of evocative scenery: the visit is organized through four floors and 25 rooms, in an atmosphere of light and dark, sounds and silence, not a place where you learn how to make wine, but a place that speaks about the relationship between people and wine (Fig. 2).

The first room is in fact dedicated to those who first loved wine, the gods: visitors walk between a bar counter and the shelf behind full of bottles immersed in the wine atmosphere; in front of the bar counter there are clients: the two-dimensional images of the gods worshipped over the centuries (Fig. 3).
The visiting route enters the rooms of the castle telling how a good wine is the result of the work of nature and time: a tribute to the moon which defines the best time for sowing and harvesting, a tribute to the sun which makes the bunches of grapes sprout and grow, and finally to the land where the plants take roots (Figs. 4-6). The natural elements which contribute to the success of the grape harvest, as well as the work of man on the hills are united and represented by four big pictures projected on curved walls: they show the hills during the seasons. In the centre of the room a seat, which thanks to the pedal movement by visitors, rotates and activates the projection of the landscapes of the Langhe territory as the seasons change (Fig. 6).

The natural elements which contribute to the success of the grape harvest, as well as the work of man on the
Fig. 5  The dark effect of the underground level: everything is brown and above the visitors’ heads the roots of the vines are hung.

hills are united and told by four big images projected on curved walls: they illustrate the hills during the 4 seasons. In the center of the room a bench, which thanks to the pedal movement of the visitors, rotates and activates the projection of the Langhe landscapes as the seasons change (Fig. 7).

Fig. 6  Backlighted panels.

Fig. 7  The pivoting bench.

The visit continues to the lower floors along the stairs painted in Barolo wine colour where images of wine landscapes around the world are hung (Fig. 8).

The second floor welcomes the visitor with a large wooden panel cut out on several levels, which illustrates how wine has been part in the history of mankind. Below written texts specify the illustrations. This is certainly the room in which the scenography gives way to the traditional written story; on the opposite wall the architect has provided small theaters characterized by red velvet drapes behind which there are mechanical devices that visitors, especially
children, can animate by activating levers and cranks (Figs. 9 and 10).

Figurative arts, music, literature and cinema have always given special attention to wine. The visitor is then invited to pass through spaces such as a painter’s studio, a stage of a theater, a cinema. The sound of movies in which wine is the light motif accompanies the visitor to the main floor of the castle in which Confino has maintained the original furnishings. Then a large multimedia book with the history of Barolo welcomes us into the library, while in the banquet hall there is a table set with foods that materialize in digital plates and on the wall an animated painting tells of a hypothetical convivial meeting around the table of the owners of the castle with their guests (Fig. 11). Around the table, men and women of the village live again in life-size silhouettes finding the word.

The tour, intended as a descent into the culture of wine, leads to the basement of the castle which once housed the cellars of Barolo wine. Since the castle was transformed into a school for the poorest children of the villages, a virtual teacher tells the secrets of wine in a classroom furnished with desks and chairs of the time: a large wall showcase hosts all tools and equipment regarding used during the wine production (Fig. 12).

4.1 La Cité du Vin in Bordeaux, France

The building has a highly symbolic architecture that shows its link with wine just from the outside. The
building, designed by French architects Anouk Legendre and Nicolas Desmazières of XTU Architects, leads us to think of a decanter, a carafe with an elongated neck and a wide, flat body used for decanting and oxygenating wine. It is located in a recently regenerated area along the Garonne river: the cladding of the envelope in silkscreen printed glass and perforated aluminium panels change according to the sunlight or sky conditions, dialoguing with the river in which they are mirrored and reflecting a golden light that recalls the limestone of the facades of the city’s buildings. It is the new landmark of Bordeaux (Fig. 13).

The museum, opened in 2016, has been set up by the English firm Casson Mann Limited and houses within its 9 levels exhibitions and meeting areas, reading and tasting rooms, a wine shop, a bookshop, an auditorium and three restaurants. The museum is accessed through two entrances: the first overlooks the city, the second the river. Entering the large atrium, all the internal routes gravitate around the staircase: the ground floor is rather dark, hosting the ticket office, the bookshop and the wine shop, evoking for its atmosphere the ground where the roots of the vines sink; going upwards the darkness gives a way to the light that penetrates more and more into the building thanks to the internal courtyard, ending with the arrival at the 55 m high tower belvedere (Fig. 14).

The heart of the museum is the permanent exhibition, a large open space on the third level of more than 3,000 square metres organized in 19 thematic sections which stimulate the visitor’s senses (Fig. 15).

The visit of the permanent section is carried out with the help of a digital guide available in 8 languages and in a special version for children (with a dedicated playful route): the device allows the activation of all the exhibits in the sections, allowing the visitors to move freely around the space according to their wishes: there is no beginning, there is no end, each section is autonomous.

The key word that links the different sections is discovering wine in all its forms, in an approach that sometimes is immersive, spectacular, interactive and sensorial, using any type of video communication,
cinema, theatre, visual arts and architecture. The history of wine is also a visual and musical immersion where the didactic parts are reduced to the essential.

A projection on three giant screens allows admiring in a virtual way all the vineyards of the world as if we were on a helicopter, globes and interactive screens are dedicated to those who love to immerse themselves in data and statistics related to wine issues. A table that is not flat, but with different facets as the landscape where the vines are grown tells through the screens the main wine producing regions in the world, with the voice of those who really produce the wine. A simulator invites to try the experience of transporting wine by sea in various periods sitting on the bow of a ship thanks to a 270° curved screen (Figs. 16 and 17).

Monumental structures become containers of screens: visitors have fun entering large wooden bottles to know the different types of wine and criteria for their classification through touch screens or they approach big grapes which illustrate through screens the long process that wine goes through from the harvest until it reaches the glass on the table (Figs. 18 and 19).

The route has playful parts for all ages: a large table dedicated to the relationship between the wine and the person stimulates the five senses: through glass bells,
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Fig. 20  The table where the five senses are stimulated.

Fig. 21  Virtual and real: the hologram shares the table with the visitors.

by squeezing a pump, visitors discover perfumes, flavours and colours that enrich the wines, in a sort of funny path to the discovery of the tasting that through monitors gives back the right indications that the visitors will take home after the visit (Fig. 20).

Among the most interesting experiences there is the interaction with great chefs and sommeliers: three long tables evoke the conviviality typical of French tradition through the use of the hologram combined with real objects (Fig. 21).

Still sitting in a niche, a face to face meeting takes place with experts who teach how to choose the right wine to accompany food, how to serve it. Similar sessions with circular screens in front of them illustrate the dizzying effects that wine can cause (Fig. 22).

5. Conclusions

If in Barolo WiMu visitors live an experience through the scenographic effects which reproduce nature, history, arts and man’s work generating wine, at the same time in the Cité du Vin visitors live a sensorial experience, but through an active visit as they are pushed to interact with the installations through the five senses.

The ideal and fruitful conclusion of the two visit experiences can be found in the basement in WiMu and on the top floor in the Cité du Vin, where the wine, after being narrated, sung, evoked, known and understood in the exhibition routes, can be tasted. The tasting areas are intended as a prestigious showcase of the wine production of the territories in which they are located. In WiMu the ancient cellars are the ideal setting in which to taste Barolo, the excellence of the territory. In the Cité du Vin the space is located in the Belvedere and is characterized by a ceiling from which thousands of transparent glass bottles are hung (Figs. 23 and 24).

Fig. 22  Circular screen emphasizes the idea of movement.

Fig. 23  Tasting room in WiMu’s ancient wine cellars.
At the end of the visit, even those who do not love wine, can be satisfied with the experience lived through different disciplines including the arts, geography, history. Visiting to know, knowing to learn and learning while having fun: I think they are the right words to describe the contemporary museums, not any more museums where visitors go just to admire the masterpieces, but a place able to teach contents to a public different from education and age.

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