

SPACE SYNTAX IN MUSEUM EXHIBITION SECURITY AND SCRIPTING EFFECTS: The Museo Nacional de Colombia

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Abstract

Apart from space syntax studies, the use of space is not a well developed topic in theoretical studies of museums, galleries and exhibitions. Using rather simple models based on axial lines and justified graphs, we were able to predict the best places for effective security control at the Museo Nacional de Colombia, a museum installed in a former prison whose building was strictly based on a panopticon design. The analysis was also sensitive to an inspired script effect featured in the exhibition.

1. INTRODUCTION

The choice of the theoretic and methodological framework for our research project was more or less straightforward. The traditional museological bibliography deals with a handful aspects of interest in the understanding of spatial issues in museums and other institutions; once in a while the researcher can find some sporadic observations about the ways in which the architectural structures have some bearing on the visitors behavior, on the arrangement of the information and on the visit experience as a whole (Pinna 1980; Alpers 1990; Baxandall 1990; García Canclini 1990; Hernández Fernández 1998; García Blanco 1999). In the topics concerning to space, though, in these literature prevails an indefinite wording and a style of description more argumentative than systematic.

The space in itself is seen as a place in which things happen, scripts are developed, encounters take place, meaning is produced, memory is housed and objects are re-signified. The space is not dealt with as a factor whose concrete material pattern is a fundamental parameter in the design of a spatial structure with specific curatorial, scientific and pedagogical purposes. The most important shortcoming in the conventional approaches is its focus in the geometry instead of the topology of the places.

There is a significant number of space syntax-oriented studies applied to the field of museums and galleries (Hillier et al 1996; Shapiro 1999; Choi 1997; Peponis et al 2003; Peponis y Dalton 2004; Tzortzi 2004; Tzortzi 2005; Kaynar 2005; Stavroulaki and Peponis 2005; Huang 2006; Penn, Martinez and Lemlij 2007; Tzortzi 2007; Zamani and Peponis 2007; Hsu 2008; Kaynar Rohloff 2009; Kaynar Rohloff, Psarra and Wineman 2009; Tzortzi 2009; Zamani 2009; da Costa 2010; Hillier and Tzortzi 2011). There is also a huge lot of related concepts and systematic tools. Among these we have selected just a couple of axial analysis methods using justified graphs.

The following paper belongs to a major research oriented to the study of the Museo Nacional de Colombia, with emphasis in the space management and structuring during the exhibition "Diego, Frida and other revolutionaries" (VV.AA., 2009). Beyond the description and analysis of the museum building as such, we found worthy of note some of the results obtained, related to museum security issues on one hand and creative scripting effects on the other.

2. CASE STUDY ANALYSIS

The Colombia National Museum was founded in 1823 and was installed in 1948 in the former building of the Cundinamarca Penitentiary, built in Bogotá starting in 1874; there is where it still stands. Restored in 1947-48 in order to adapt the building to its new functionality as a museum, it was praised by Le Corbusier because it brought together in a single body two heritage entities worth of preservation: the collections and the building itself. As the penitentiary it was, the building was a typical example of a panoptic structure, at it has been frequently claimed.

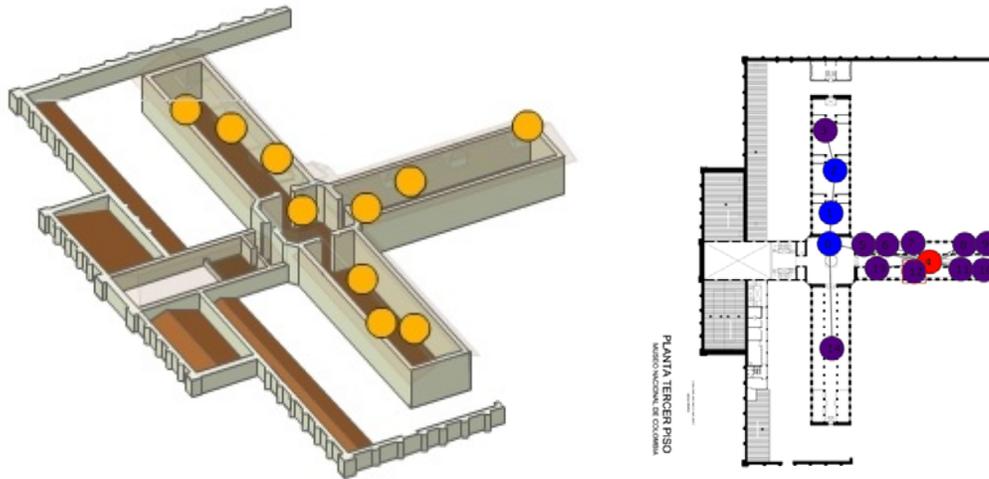


Figure 1 – Third floor 3D plan and control value graph

In analyzing the museum architectural structure we made use of JASS (Justified Analysis of Spatial Systems) program, setting a rasterized picture of the museum plan as background.¹ Figure 1 depicts the plan of the third floor of the Museo Nacional followed by the graph showing the analysis of the value control variable. The interpretation is simple: the red color means a high value; blue is a lower value and purple the lowest.

The first finding brought forth by the analysis is related to an important security issue. The point in red color in the control value graph corresponds to a key controlling place in the panoptic structure. As subtly showed in the picture in figure 2, this point is exactly the place where the security guard is situated. In this way, the control practice implemented in the Museum is fully consistent with the analysis results, and viceversa.

¹ JASS was developed by KTH School of Architecture & NADA, Stockholm. See http://www.arch.kth.se/sad/projects/JASS/tools_jass.htm (Visited on August 2011).



Figure 2 – República de Colombia room – Painting in parallel and control point

Our second finding underscores the contrast between the metrical and the topological configuration of the building (which is also evident in the graph values), a distinction used to implement an imaginative exhibition effect. In an exposition dedicated to put in parallel the revolutionary arts of México and Colombia emphasizing their ideological correspondences and their role in the construction of the national identities (VV. AA 2009: 78, 82), the paintings selected as representative of the respective academic styles were “La mujer del Levita en los montes de Efraín” (1899) by the Colombian painter Epifanio Garay and “La cazadora de los Andes” (ca. 1891) by the Mexican Felipe Santiago Gutiérrez [1824-1904], who was a source of inspiration for Garay (fig. 3). The parallelism between both paintings and nations proposed by the exhibition script is mounted, literally, on the building structure itself. But where the geometric map and the architectonic model only show distant walls, the topological analysis based on space syntax reveals from the beginning the proximity between the national identities.



Figure 3 - La cazadora de los Andes (Felipe Santiago Gutiérrez, 1891 – 130 x 198,5 cm) - La mujer del Levita en los montes de Efraín (Epifanio Garay, 1899 – 139 x 198,5 cm)

In this way, the spatial articulation possibilities were creatively brought into play at the museum exhibition; looking to the gallery from the central hall, one can see that the long metric distance between the paintings virtually disappears, prevailing in its place an effect of topological proximity: in this fashion, two really distant paintings can be objects of simultaneous visualization.

Besides this, the semantic intent of the exhibition we are analyzing was particularly conspicuous in the exploitation of further spatial metaphors. The parallel pictures of Gutiérrez and Garay were situated at the entrance and the bottom of the República de Colombia room (fig. 2). In the corresponding graph, the points 0 and 4 are contiguous (fig. 1, right). It's worth mentioning that at the opposite room, called Los Primeros Modernos, it was featured an intervention whose themes were "So far, so near: Artistic encounters between Colombia and México", "In the search of an own expression" and "Colombian muralism". Intentionally or not, in the farness and in the encounters, followings and pursuits mentioned or insinuated in each of the titles, the spatial metaphors inherent to the relationships between the arts and the identities are clearly expressed in the topology of the exhibition.

3. DISCUSSION

While conventional research on the use of space in museums and galleries does not allow for a systematic development of analytic tools, the use of a rather simple analysis based on justified graphs allowed us to predict at least two features, the first one related to museum security issues in a panoptical building, and the second one showing a creative use of parallelism effects between geometrically distant but topologically near places.

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