The Social Logic of the Mosque: A Building and Urban Spatial Investigation

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Abstract

The mosque has been, for more than fourteen centuries, an object of continuity and transformation in its socio-spatial city context. The intended study will explore the mosque in the city by focusing on the congregation mosques in selected cross-cultural pre-modern Islamic cities with an emphasis on Makkah and Madinah mosques as origins.

This short paper will look at the two original mosques, Makkah and Madinah, and will question whether or not it is valid, or perhaps necessary, to carry a separate genotypical analysis on the object itself and axial analysis on its relative position in the context of the city, in order to have a full view of the object's socio-spatial nature? And would it be feasible then to put the combined results through a comparative analysis of other similar cases?

The aim of this research problem is to contribute to the understanding of the social logic of the mosque at the urban and building levels in the context of the rituals unity and cultural diversity.

Key words: mosque, space, society, genotype

Introduction

This short paper aims at introducing the research problem. The focus of the research is on the mosque as a social object. The study looks at the early development of the mosque to understand the origin of the building type. For the cultural diversity, the study proposes the investigation of the congregation mosques in pre-modern cities chosen for their availability of data as well as their prominence in the Islamic world. The geographical range is wide, from West to East and from North to South.
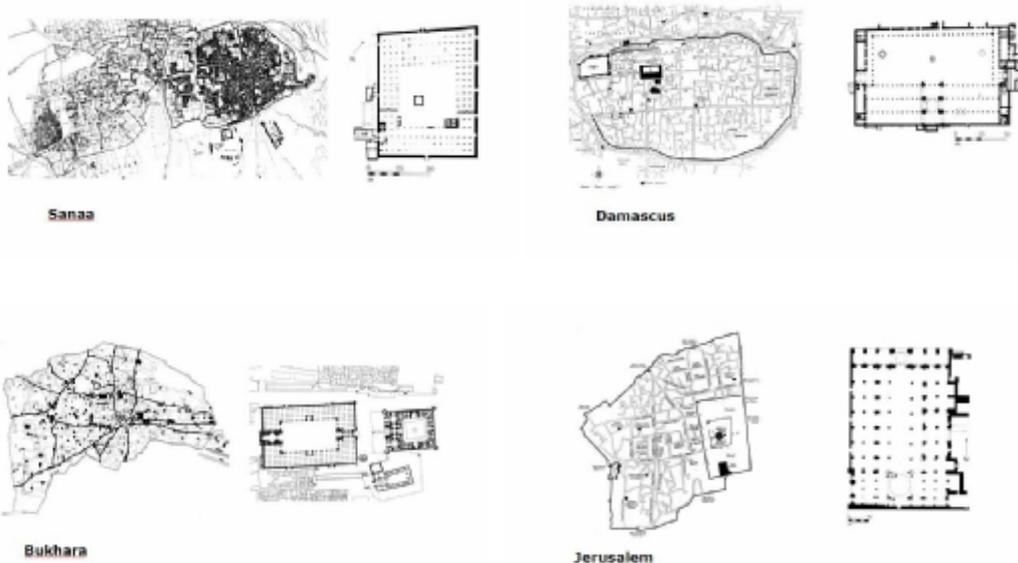
Sanaa   Damascus

Bukhara   Jerusalem

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The present knowledge of the mosque is fragmented into socio-religious, formal-functional, art-historical and urban-contextual parts. This fragmentation may be attributed to the lack of the tools to think with in order to unpack the relevant knowledge of a coherent view. In the Islamic culture, that spans more than 14 centuries and spread over diverse geographies, the mosque is an integrated and active element in shaping and maintaining the Muslim society. Although this concept is well established in the above mentioned knowledge parts, it has not been established as a spatial concept. Here the concept of the mosque as a spatial artefact embodies the social meaning. The availability of the tools to think with in the form of the space syntax theories and methods renders this research possible. The possibility of reaching conclusive results further confirms the worthiness of undertaking the research.

Background

To understand the mosque as a building type, it is not enough to analyse it formally as a constituent of physical and symbolic architectural elements (as promoted by art historians like Grabar and Hillenbrand[1]) nor historically as an object of events and social process (as portrayed by Muslim scholars). What is needed, given the theoretical and methodological tools availability of space syntax[2], is to look at its genotype, i.e. the configurational regularities that show the spatial categories and social practices.

To complement the understand the genotype of the mosque, it is suggested that its position within the city is analysed to show the extent of its role in the society city context. Although, the prominence of the mosque in the city and the society is not debatable, very little is shown on how this role is obtained through its relation to the city as a global system and as a whole consists of urban elements. This type and context morphology was fostered by the formal advocates of the city such as Colin Rowe's figure-ground[3] and the rational architecture of Aldo Rossi and Krier[4]. However, their approach minimised the social and cultural functions and elevated architecture as an autonomous formal discipline. A closer approach to this objective is the work of Besim Hakim[5] in which the relation of both the building types and urban elements within the city street system was investigated. Although his analysis showed the relative distribution of major functions and quantified metrically built-up areas of their urban elements, it remained short of explaining the structure of the system as a whole. The work which will be the stepping stone for to realise this objective is Karimi's space syntax analysis[6]. However, his work looked at the city as a whole and sought to identify the ranking value of the urban elements. It was not intended within its scope to extend the analysis to the urban elements as cultural artefacts.

Research Questions and Approach

The mosque is the House of God, where visitors are controlled by the rules of the rituals and the inhabitants are not in control of the mosque. Control and freedom of the mosque interior spaces and integration of its position in the settlement system are clues to the society's intentions. If the rules of the rituals are the same, then the mosque spaces and position are expected to be the same in various cultures. Are they the same or not? If not, then what would be different and why? Such questions will be answered through the course of the research.

The research will carry a genotypical analysis on the object itself and an axial analysis on its relative position in the context of the settlement. The mosque as a social object, studied in several diverse cultures, will produce similar and
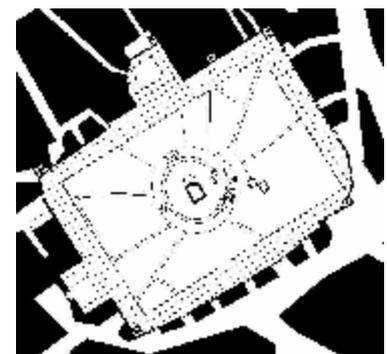
different spatial patterns that carry clues of the society's intentions. It is in these socio-spatial intentions that meanings can be interpreted and conclusive views may emerge. The rituals and social rules are analysed spatially to unpack intentions and practices of the societies.

Another element of significance is the role of the basic spatio-temporal rules set by the religion related to the intentions of the religion's teachings as separate from the society itself. Although these rules are respected, they were subject to reinterpretations while implementing them throughout the times of history and spaces of geography.
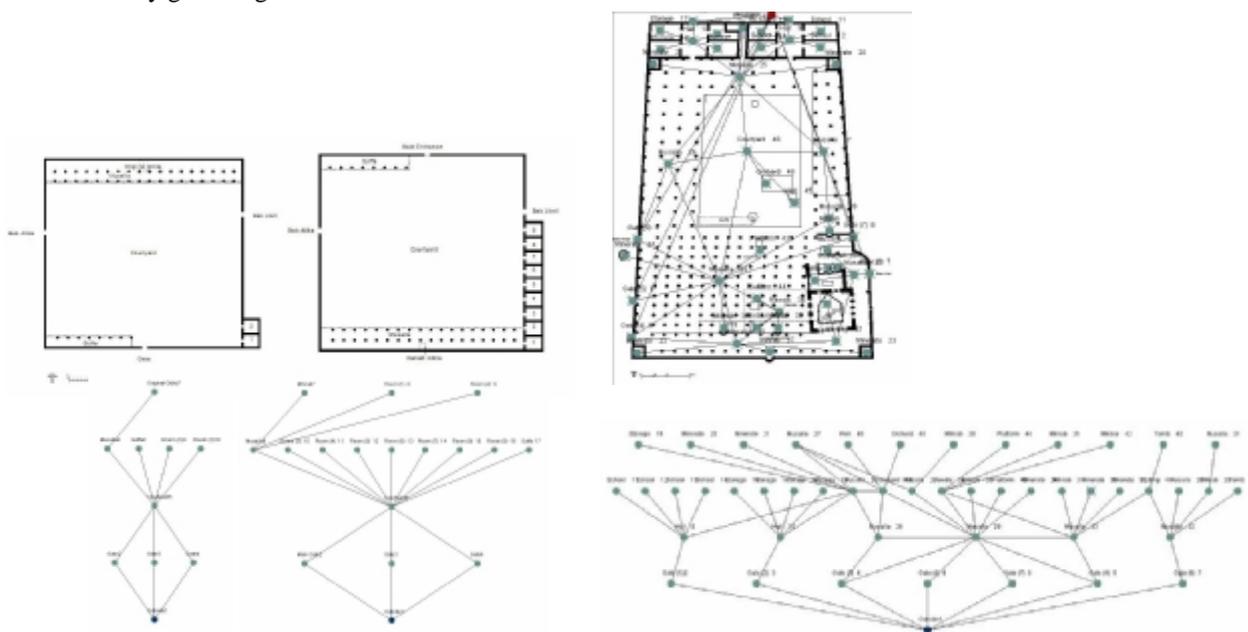
Makkah and Madinah Mosques
Makkah mosque (see 19th century plan above) outward expansion from a fixed centre represented by the Kabah, built by Abraham 4000 years ago, indicates a spatial and temporal continuity. This unity with the past emphasizes further the continuity of the rituals.

The rituals structure the open court and the covered mosque into spaces occupied by the worshippers. They form circles while standing in lines facing the Kabah for formal prayers. This ritual is both spatial and transpatial.

Madinah mosque started as the house of the Prophet with a large court yard and a direction towards Jerusalem (see 1st plan below). The direction was then changed to Makkah towards the Kabah (see 2nd plan below). The Prophet was buried in the mosque (see the 19th century plan below). It was at the time of the Prophet an administration and community centre and continued as such for years.

The rituals were not the only social practices that took place at Madinah mosque. The prophet had his house there so as the poor immigrants form Makkah had a place devoted to them. The open court was also a place for the community gathering and administration.


J-Graph
The J-graphs of both Makkah, and Madinah mosques, above, present similar relative asymmetry with respect to the prayer's niche, at depth 4, when taken form the outside. The spaces from the outside are: the gates, the court, the covered mosque and the prayer's niche. These spaces are the same in all cases and in both examples.

Axial Analysis

The axial analysis of Makkah shows the mosque gates right on the most integrated lines in the global system in both Rn and R3 measures. This confirms the centrality of the mosque and its role in the city. The axial analysis for Madinah at Rn, however, indicates a less integration values for the lines leading to its gates, except for one line. At R3, the local integration shows another relatively integrated line to the East of the mosque, which happens to lead to the most accessed gates in the mosque that lead to the Prophet tomb.

The correlation of Rn and R3 integration values for Makkah indicates a positive and high correlation when compared to Madinah which is more scattered away from the line.
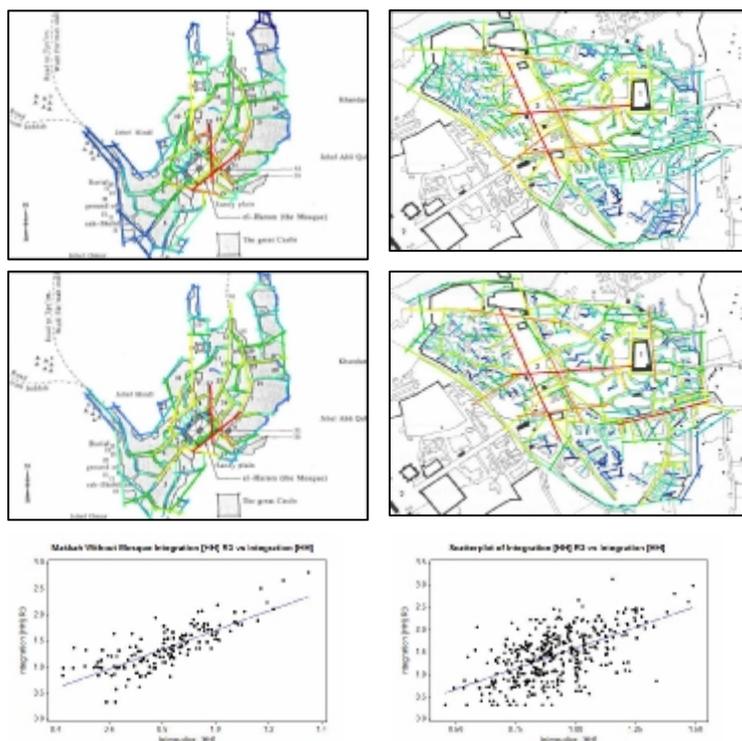
Discussion

Although it is too early to be conclusive at this analysis stage, there seems to be an agreement between the two mosques at the building level in terms of their structure even though their generative syntax is different. At the urban level during the 19th century, however, Makkah mosque is more integrated and central in the city, while Madinah is less integrated and peripheral.

The next step of the analysis will bring another layer to the investigation of the building and urban levels. At the building level, a more focused and detailed analysis of the category of spaces and the social groups is required; at the urban level, an inclusion of other urban elements such as the market, school, ruler's place and residential quarters in a relative analysis can contribute to the understanding of mosque position in the system.

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[1] Grabar's *The Architecture of the Middle Eastern City from Past to Present: The Case of the Mosque* (1969) and Hillenbrand's *Islamic Architecture: Form, function and meaning* (1994).
[2] In the work of Hillier and Hanson, *The Social Logic of Space*, (1984) and Hanson, *Decoding Homes and Houses,* (1998).
[3] *The Collage City,*(1978).
[4] Rossi's *The Architecture of the City,* (English translation 1982) and Krier's *Urban Space,* (1975)
[5] *Arabic-Islamic Cities: Building and Planning Principles,* (1986)
[6] Karimi, *The Spatial Logic of Organic Cities in Iran and the United Kingdom,* (1997).