THE GENERATIVE NATURE OF ISLAMIC RULES FOR THE BUILT ENVIRONMENT

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The built environment of Muslim towns and cities was determined in the past largely by the manner in which re¬sponsibilities were allocated and individual behaviours were affected by the notion of rights. In the early period the predominant customary practices (urf) of the Arabian peninsula in particular and the Near East in general were assimilated by the early Muslims (Hakim, 1994). These practices were adapted and changed as necessary to bring them into confor¬mity with the practice and experience in Medina following the hijra in 622 C.E. Through his statements and actions, the Prophet Muhammad affirmed customary practices that were consistent with Islamic values, and he clarified the purpose of other practices that he encouraged. Thus was established the basis for practices that subsequently were elaborated upon and expanded by Muslim jurists. In general, it can be said that there are more similarities than differences in the positions adopted by the various schools of Islamic law relative to the built environment.

It was the responsibility of the ruling authority to establish the primary mosque in a central location and to specify the loca¬tion of the government building, treasury, market, defensive perimeter wall and its gates, and thoroughfares leading from the center of town to the city gates. In newly created towns, it also was the responsibil¬ity of the ruling authority to allocate land to tribes, ethnic groups, and extended families through a procedure known as iqta. The subdivision and management of these allocated lands was the responsibility of the tribal elders or representatives and not that of the ruling authority. Heads of households in turn were responsible for lay¬ing out the organization of the cluster and the design of their houses (Akbar, 1990, 1992).

When Muslims settled in existing towns, the above-mentioned responsibilities were allocated in a similar manner. In certain cases the existing urban fabric underwent changes due to the rights and responsi¬bilities associated with the parties that controlled various sectors of the built environment. The sectors and facilities of the built environment that were used by the public were overseen by the muhtasib.

At the level of neighborhood formation, change in the urban environment was regulated by

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qawa'id fiqhiyya, overarching legal principles that formed the framework within which the Muslim community set out rules that people understood, respected, and followed in making decisions that affected the design of their houses and the manner in which those decisions affected adjacent buildings. Muslim jurists define the term qa'ida as a "general ruling that ap¬plies to its particulars," or "an overarching rule that applies to the various levels of a situation or a problem" (al-Zarka,1989). All law schools agree that the five primary qawa'id constitute a framework within which other qawa'id fit, covering most issues addressed by the law (al-Sadlan,1996). These five principles and their corollaries comprise a system in which a concept or decision related to any one of them is affected by, or affects, the others.

The five qawa'id that served as the basis upon which secondary principles and rules were established are: (1) do not harm others and others should not harm you (la darar wa-la dirar); (2) affairs are determined by their intent (al-umur bi-maqasidiha); (3) cer¬tainty is not removed by doubt (al-yaqin la yazul bi-l-shakk); (4) hardship brings relief (al-mashaqqa tajlib al-taysir); and (5) custom has the weight of law (al-ada muhakkima). These five principles influenced the formation of the built environment by forming a set of overarching rules that set limits on behaviour (al-Burnu,1983).

With respect to the built environment, la darar wa-la dirar is the central and most influential principle (even though it is often listed as the second principle in legal texts). This principle is always applied to issues relating to decisions affecting the built environment.

Five additional rights and conditions that operated at the level of a single unit of the built environment (e.g., a house) affect decisions and actions:

1) Freedom to act, on the condition that harm is not inflicted on adjacent proper¬ties or facilities (Madkur,1963). This freedom, known as ibaha, is defined as "freedom that is constrained by what is forbidden" or "permission to act as desired by the actor" (al-idhn bi-ityan al-fi'l kayfa sha'a al-fa'il; al-Jurjani,1983).

2) Precedence: realities on the ground created by earlier builders must be re¬spected by those who follow. Thus a person who builds a new structure adjacent to or across from an existing structure must situ¬ate and design the new building—especially its windows and doors—so that no visual corridor is created between the two build¬ings (Hakim, 1986, 2007).

3) The person who builds first has the right to exercise "control over potential damage" (hiyazat al-darar) (Ibn Farhun,1884). That is to say, the earlier building or facility exercises control over what a subsequent builder can do when building next to it.

4) A neighbour has the right to abut his building against the wall of an exist¬ing structure, provided no harm is done to the pre-existing wall or structure. Because houses were built around inner courtyards that provided light and air, this right facili¬tated the clustering of buildings adjacent to one another on more than one side.

5) Access to a structure is through a space called a fina (or harim) that is ap¬proximately 1–1.5 meters wide and runs alongside all exterior

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walls of a building. This space also extends vertically alongside the walls of the building. The owner or tenant of a building has the right to use the fina for temporary purposes provided such use does not impede traffic in the street, and he is responsible for keeping his part of the fina clean and safe from any obstructions and the accumulation of rainwater or snow. The vertically extended fina allows upper level projections in the form of balconies, enclosed bay windows, and rooms bridging the public right-of-way (called sabat). In the traditional literature we find that some Muslim scholars attribute these projections and the sabat to the right of ihya al-mawat, in this case the utilization of dead space that would not harm the traffic underneath.

To summarize: It was the responsibil¬ity of the ruling authority to create the broad framework for the town or city. The decisions of the ruling authority af¬fected city walls and gates; the location of the major mosque, the palace, and the central market area; and the general align¬ment of the primary streets connecting all of these structures. In other respects, the city emerged naturally as a result of the decisions and actions of its residents, who, when they built houses and other structures, responded to existing conditions on adjacent properties by adjusting their own design. Over time, changes occurred as the owners adapted to neighbouring and, especially, contiguous structures. The alignments of pathways and streets were delineated and extended in response to the creation of nearby structures and changes in them. In a word, the system was self-regulating and adaptive.

Islamic urbanization is governed at the local level by the principle of freedom, that is, that one may develop one's property without restrictions, subject to overarching proscriptive rules derived from normative principles based on Islamic values. The city emerges from decisions made by the various actors involved in the construction and renovation within their immediate built environment. In this respect, the emergence of the built environment resembles any organized complex system (Weaver, 1948). As N. J. Habraken has put it, "to use built form is to exercise some control, and to control is to transform . . . A complex hierarchy of control patterns within a continuity of ac¬tion emerges . . . [C]ontrol thus defines the central operational relationship between humans and all matter that is the stuff of built environment" (Habraken, 1998).

In order to understand the development of the built environment, it is necessary to think about process, to work inductively (reasoning from particulars to the general), and "to seek "unaverage" clues involving very small quantities, which reveal the way larger and more "average" quantities are operating" (Jacobs, 1961). The relationship between the owners of adjacent houses depends on decisions affected by nega¬tive feedback, as when a window in one house overlooks the private domain of an adjacent house: the owner of the adjacent house reacts by demanding that the window be sealed or removed; if the window existed before the new neighbour built his house, the new neighbour responds by designing his house in such a way that no visual corridor is created. In all living systems, feedback loops generated by networks of communication among its members make it possible for a community to correct mis¬takes and to regulate itself (Capra, 1996). These features of living systems

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help explain how the local built environment developed in the traditional Islamic city as residents interacted with one another. The emer¬gence of the traditional Islamic city is best understood as a product of a system of rules that created boundaries that were ob¬served by residents. The system's capacity to accumulate and internalize experience by growth and experimentation derives from its adherence to these rules (Johnson, 2001; Hakim, 2007).

Acknowledgment

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