

**Urban Infill and Revitalization of Al- Rayan Corridor in Doha, Qatar:
Land Use and Design Plan**

By:

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Theoretical Background

Cities in the Gulf region including Doha have been witnessing dramatic changes in their morphology and internal/intraurban structures during the last four decades due to two successive shifts from endogenous to exogenous types of urban growth. The first shift occurred as a result of the discovery and production of oil which shifted the economy of Qatar from subsistence function based on fishing, pearl trading and /or farming to a quaternary/tertiary function based on industry, manufacturing and services. This shift became the major factor in shaping the form and structure of Doha which was characterized by urban growth and expansion beyond the city limits. At present, a second stage of "exogeneity" is occurring due to the discovery and production of gas as well as globalization of Qatar economic and sociocultural functions. This shift resulted in the presence of large national and multi-national companies, new and educated waves of expatriates, the integration with the world banking system, and the structuring of residential compounds and high rise buildings. These changes in the intraurban structure of Doha are having a direct impact on the socio-economic, cultural and thus, urban morphology of the city. Reviewing the urban growth and expansion of Doha during the last four decades, one can easily recognize the pattern of sprawl development towards the suburbs and leaving undeveloped areas specially in the old parts of the city which represent the urban heritage of Qatar, and thus, defines a theoretical framework for the approach to propose an urban corridor land use/heritage design and planning to be adopted.

Qatar is now experiencing a heightened concern over the social, environmental, and fiscal quality of its traditional communities arising from development practices that aggravate the decline of many urban downtown communities and older suburbs, congest streets and highways, accelerate the loss of cultural resources and the deterioration of the natural environment, and limit opportunities for the retention and creation of unique urban corridors. Often these problems are simply and collectively labeled, "sprawl." In response, the redevelopment of down towns corridors by implementing heritage design is highly recommended. This development approach recognizes that it is necessary to balance the interests of diverse public, private and governmental identities and to serve the collective public interest. This approach can influence government legislation that may provide financial assistance and incentives for private developers to reassess their planning statutes, update them, and to embark on meaningful implementation of heritage plans. Additionally, this approach challenges the private sector, especially the real estate and lending communities, to join the government in working to reverse the negative effects of the current predominant pattern of sprawl growth and to help government advocate for new policies that will lead to well-designed inner city corridors of lasting value.

Research Scope and Statement

This research project is a spatial and behavioral oriented study investigates and discusses the process of devising urban limits and evaluates their impact on urban structures of downtown Doha, with respect to, (a) control urban sprawl by encouraging infill development where utilities were generally available; and (b) maintain the natural and cultural heritage environment within Al-Rayan urban corridor. The main outcome of this Study is a revitalized and renewed land use and urban design planning framework to guide development and design decisions in both the private and public realms for the Al Rayan Street corridor.

The revitalization and renewal of Al Rayan Street presents an exceptional opportunity for transforming an unfriendly car-oriented corridor into a safe, pedestrian friendly mixed-use street that will cater to the needs of key stakeholders, and local residents. The study area runs along Al Rayan Street and is approximately 4 km², starting from souk Waqif, until Al Manai Roundabout (See Figure 1 below). It is structured in threefold: first, reviews the historical urban growth and expansion of Doha with particular focus on the city center including the study area; second, presents the research approach and the field urban morphology data collection; third, presents the findings concerning typology analysis and the proposed land use and heritage design plan for the corridor.

Project Overview and Methodology

In this project we developed a Geographic Information Systems (GIS) data base using Arc GIS version 9, which consisted of variables describing the physical and human characteristics of every parcel of land within the study area. This GIS data base served us in identify the best location for various land use and proposed architectural design as well as the spatial scope of these sites as local, regional and/or international attraction as cultural destinations. Satellite images and physiographic maps of Doha were collected and analyzed. Data concerning parcel by parcel urban morphology were collected through actual field survey and personal observations, and data concerning the land use and design preferences of city officials, business community, city residents and city center visitors were collected by means of questionnaire interviews. 150 questionnaires covering the four stakeholders' categories were completed and analyzed with using SPSS software (Statistical Analysis Package for Social Sciences). Concerned officials and business stakeholders were identified and interviewed with the help of the Urban Planning and Development Authority, while city residents and visitors were selected randomly. Findings of the project demonstrated the importance of the stakeholders' participation in the planning process of

the proposed land use and design plan. The following chart (Figure 2) illustrates the conceptual and methodology framework used in this study.

Thus, this project adopted an empirical research approach to present a spatial and a behavioral profiles of the conditions of the built environment in the corridor. The spatial profile was produced as the output for the typology analysis of land use/land cover of every land parcel within the study area based on the spatial parameters. The behavioral profile was produced as the output of field survey interviews about heritage design preference among city officials, business leaders, city residents, and city center visitors based on the behavioral parameters. Data base for this study consisted of satellite images, land use maps, documentary evidence, interviews and field research. The built environment in this context refers to the buildings, structures, utilities, and services that enable people to live, work and play, circulate and communicate.

Figure No. 1 Study Area: Al Rayan Corridor

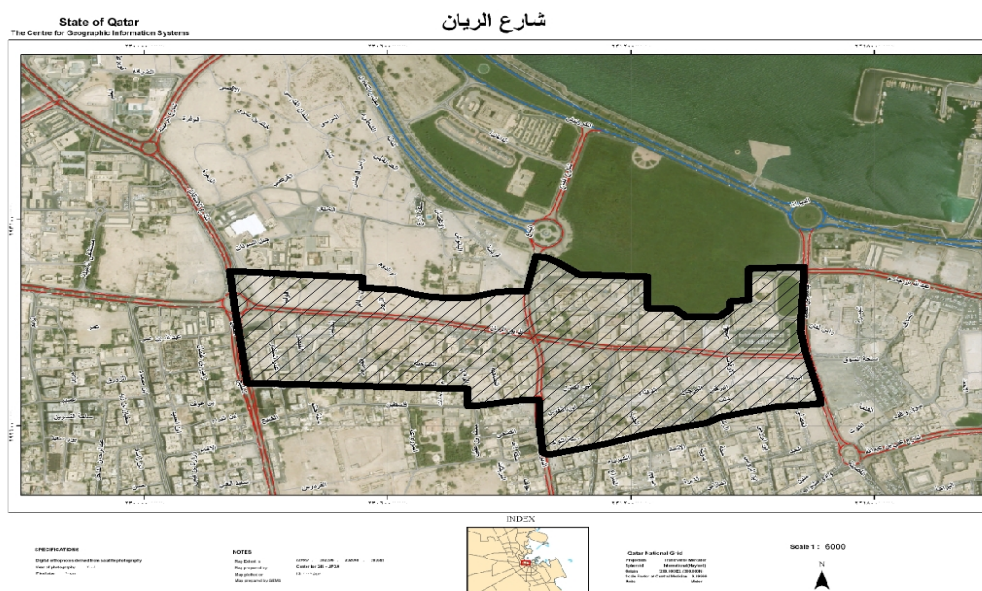
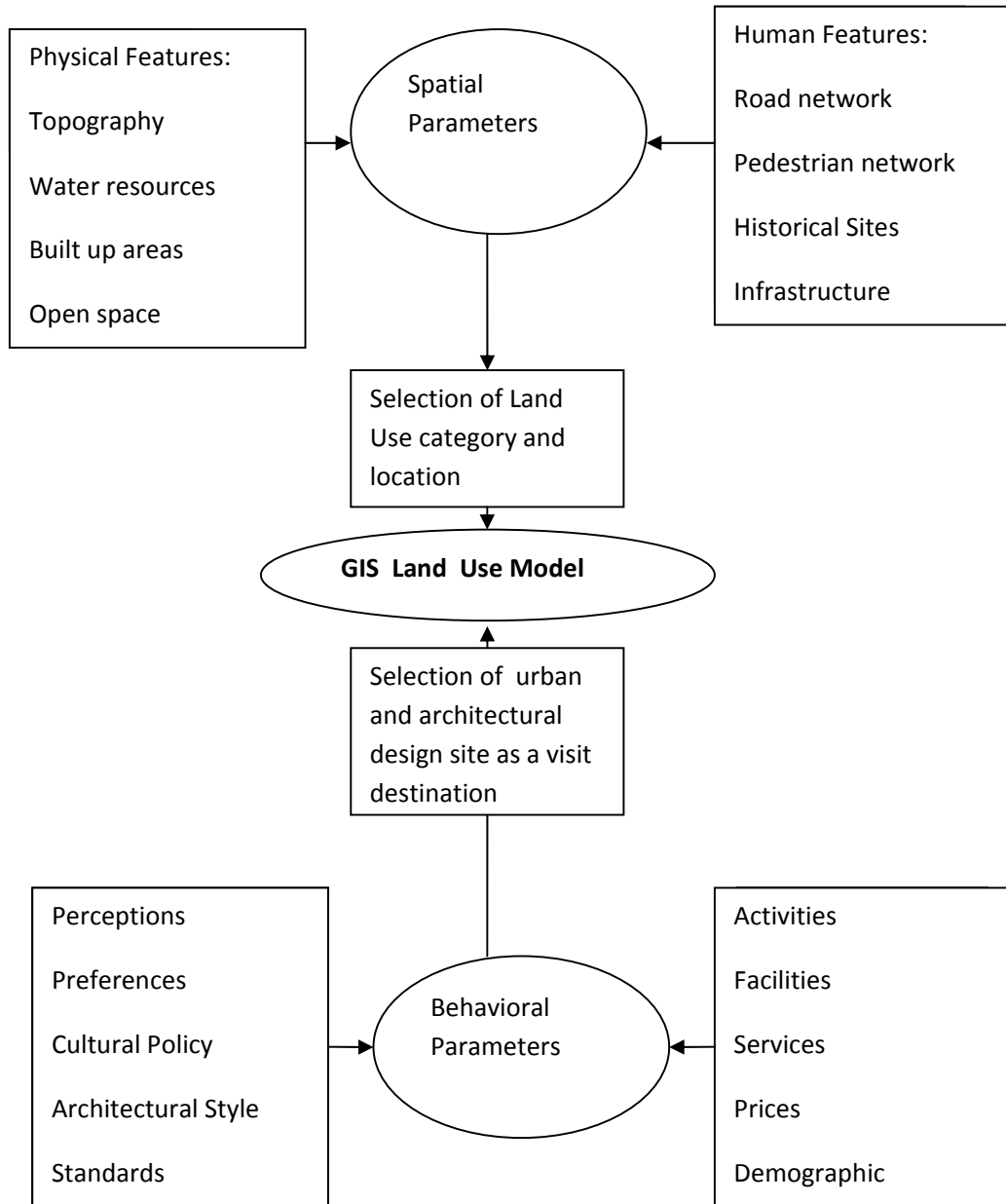


Figure No.2 Conceptual Framework



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