Introduction

This case study highlights two Gulf coastal cities of Iran, Bandar Abbas and Bandar Lengeh, and their sub-regional context. The work presents the first phase of the Gulf Sustainable Urbanism research program related to the pre-hydrocarbon period of these cities. The past is analyzed in a holistic manner to help answer how traditional urban growth had sustainably coped with unique environmental conditions and society needs under very demanding conditions with relatively limited resource availabilities. It is complemented by a parallel cognizance of the present situation with both its deviation from local traditions together with the new cosmopolitan culture in the region. The underlying concept is that future urban growth should study and learn from the past while being conscious of how the present is being simultaneously shaped by past forces and future development trajectories in the region.

This study is the result of the Research Goals, Framework and Methodology used for understanding sustainability in the past by undertaking a process of focused interviews, data gathering, documentation and analysis that is more fully described in the Methodology section shown in the Appendix. The work has been greatly facilitated and informed by the participation of regional representatives from Iran, who have been recognized in the acknowledgements. These representatives were identified early in the research process and have generously and actively facilitated the Harvard Field Trips and data collection process, plus periodically participating in the discussions of milestone workshops and validation reviews of this study.

As in other cities studied in the Gulf Sustainable Urbanism project, this research focuses upon four scales of consideration from the sub-region to the city and neighborhood to unit plus three key study topics, limited by the availability of information. The first topic focuses upon the Environment and Public Health issues related to the Land and the Sea. The research has involved three dimensions that allowed for consideration of climate and natural system changes, human ecological impacts, and public health effects as indicators and results of urbanization. The second topic of Social, Culture and Economics covers the historical study of sociocultural and economic forces of the Past by examination of the work of key Gulf scholars and historic archives in the region and abroad to create a powerful framework that facilitated the development of a Timeline within which to situate the process of urbanism in these two cities. Due to the particular limitations of Field based interviews and availability of historiography and ethnography to provide sufficient understanding of social and political organization and economic dynamics of these cities' Past, this aspect of the research allowed less depth of investigation. The third topic of traditional Urban Form and Architectural studies assumed the greatest amount of the team's focus and resources and assumes the major part of this publication. It was concentrated upon one Field Trip to each city for data gathering that allowed minimum personal interviews; the data gathering and archiving was followed by a CAD documentation at all four study scales, with a special focus on the house typologies. Based upon available information, a quantitative parametric and qualitative analysis of the sustainability performance of these historical forms of habitation and their relevance to their context was then made.

The contents of this study are sequentially structured and presented here from the sub-regional to the city and from neighborhood to the unit of selected, representative buildings. The information presented is primarily through graphic illustrations with associated explanatory narratives describing thematic maps, charts, illustrative diagrams and architectural documentation of buildings. They have been prepared to address existing information gaps about the sustainability of these historic urban centers and to embrace a wide constituency of readers in an innovative and appealing manner. Each of the three topics are conceived in such a way that the research scope for each is technically representative of the availability of data, needs and methodologies of its own particular field of study, yet integrated with the other themes. The thrust of the study is to discover the multiplicity of natural forces of the environment and those adaptive strategies of the socio-cultural and economic forces of indigenous people and others whose impacts have shaped the built environments of Bandar Abbas and Bandar Lengeh over the generations.

Iran

area: 56.9 sqkm approx.
population: 367,508*
density: 6459 per sqkm

* wikipedia - census 2006

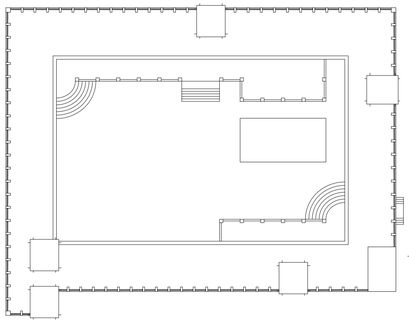
area: 8.3sqkm approx.
population: 25,303*
density: 3049 per sqkm

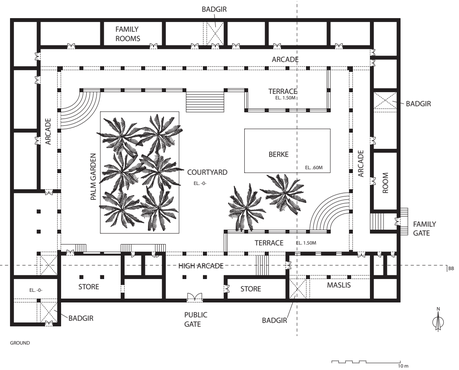
* wikipedia - census 2006

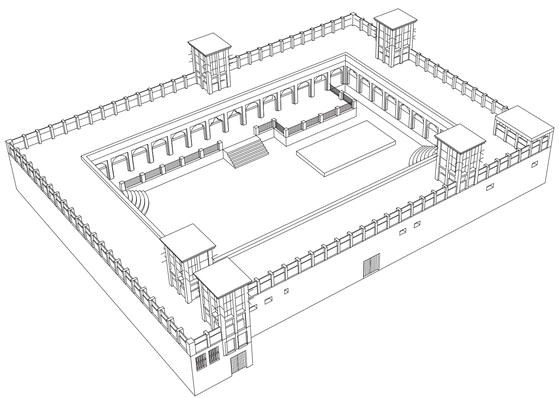
Golbatan House

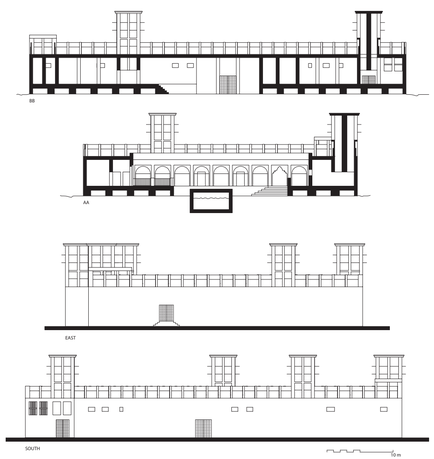
The Galbaton house was built by a wealthy sea captain in the mid-20th century by the water's edge of Bandar Kong adjacent to the moorings of his ship. It is one of the largest traditional courtyard houses in the region consisting of one large rectangular, central court oriented on an East/West axis to catch the sea breezes from the South. A main gateway on the South leads to a covered porch facing the court and on one side of which is located the Men's *majlis*. A family entrance is placed on the East. All the other exterior elevations are without windows and the house appears from the outside like a fortress. From the family entrance one enters a long hallway that leads to an arcaded gallery (*liwan*) in front of which is a terrace that runs around the east, north and west side of the garden court. The raised terrace has semi-circular stairs the step down to the court floor. In the eastern portion of the court is situated a covered cistern (*birka*) that serves the specific water needs of this house, while the western portion contains a date palm grove. The main family rooms are placed on three sides, protected from the sun, by a large porch (*liwan*) facing a southerly direction and the sea. Five wind towers (*badgir*) are located in various locations over reception and family rooms of the house. An extended family lived in the house, at times numbering six households. The materials of construction are coral stone and mortar load bearing walls surfaced in plaster and the roofs are of *chandal* wood.

site plan to be updated









Malek Ibn Abbas Mosque

The mosque pre-dates the Safavid Period (16Th C.), though it was apparently renovated during the Safavid era and later in the late 19th c. on order of Nasr bin Abbas Malek Al-Tojjar. It consists of a courtyard 21 x 13 meters with a historic minaret of patterned brick and blue tiles culminating with *muqarnas* decoration and is situated on the northeastern corner. The court leads to a double porch (*liwan*) 21 x 9 meters in plan consisting of two rows of seven arcades surfaced in white plaster. The shape of the arcade arches reveal an influence of Indian architecture and it is said that the architect who had carried out the last renovation had come from the sub-continent.
The Prayer hall has one row of circular columns and arches that hold a flat roof of *chandal* wood. The entire structure is of brick load bearing walls and columns surfaced in white plaster.

site plan to be updated