

Summary: A 6th century archaeological site, Petra was named a UNESCO World Heritage site in 1968 and more recently named one of the “New Seven Wonders of the World” and showcased in the movies, “Indiana Jones and the Last Crusade” and “Transformers.” In addition to its importance as an archaeological site and cultural icon, its tourism draw is the second largest component of the Jordanian economy. Three prior studies have failed to comprehensively address the challenges plaguing the region; addressing only the existing urbanized areas of the region which comprise less than 10% of the total land area, and failing to address the vast archeological and ecological resources beyond those just within the existing archeological park. As a result of increasing unplanned tourism growth, Petra is at risk of losing its designation as a World Heritage Site. The region faces challenges with environmental degradation, population growth, child labor, limited water availability, unchecked development, lack of infrastructure and tourism accommodations, as well as complex challenges in managing the archeological park.

Project Purpose:

In Petra, a multidimensional tension exists between the need to protect and preserve the archaeological resource and to promote and sustain the tourism potential of the region for the economic benefit of the country. As a young tour operator expressed *“this is not our treasure – we share it with the world and we need to hand it over undestroyed to our children...”* Local residents and leaders understand that the integrity of these resources is critical to the long-term economic health of the region and the well being of local residents. To address these challenges, the Jordanian government established the Petra Development and Tourism Regional Authority (PDTRA) with authority over a 197,685 hectare region including and surrounding the Petra Archaeological Park (PAP) which contains the most highly visited archaeological sites.

The team of landscape architects, tourism planners and local experts was retained by the PDTRA to prepare the Strategic Master Plan for the Petra Region, providing a guide to preserve the archaeological, ecological and cultural resources of worldwide importance while planning for the needs of future population - estimated to double in the next 20 years.

Role:

The plan balances physical planning recommendations with strategies for economic and tourism development, exhibiting the full range of planning– from regional planning in the McHargian tradition to town-scale planning and placemaking. Such a comprehensive approach has been heretofore unknown in Jordan.

In a departure from prior plans, the Strategic Plan focuses on the entire 197,685 hectare region, beginning with the creation of a comprehensive geographic information system database, the first such database of its kind on Jordan, which draws information from non-governmental organizations, national ministries, and original research. The creation of a public database overlaying once disparate sources of information, many previously not available electronically, has resulted in a tool for collaborative land planning in the present and future.

The land and infrastructure data was used to analyze land sensitivity and growth efficiency to identify areas for future development and areas for conservation. Over 400 participants including local leaders, women’s groups, youth groups and local subject experts provided input in prioritizing the land sensitivity factors such as steep slopes, wadis, views and agricultural soils. High priority was placed on protecting wadis (water drainages) from encroachment. Jordan is one of the most water-poor nations in the world, yet ironically overdevelopment in and along the existing drainages has led to flooding within and around the park, resulting in damage to the archeological sites. The Strategic Plan, therefore, calls for a watershed management concept for the region. Town boundaries have been re-organized by watersheds, with land coverage and zoning within each watershed balanced to prevent flooding and wadis zoned as conservation with substantial setbacks to discourage encroachment. The future land use plan sets aside 93.8% of the region as conservation zones and open space, providing a regional conservation system that links the Dana Reserve on the north with the newly designated Massouda and Rahmeh reserves on the south. Such a strategic solution provides for the “corridors and linkages” critical to the movement of wildlife within

the region, but also calls for a network of trails and a “lodge to lodge” ecotourism strategy which will provide employment opportunities for the small villages of the region.

The conservation zone does allow for continuation of the pastoral use that is the economic tradition of the seven Bedouin tribes that occupy the landscape. An extensive public engagement process was employed to gain the input of both nomadic and urban residents of the region. In addition, the planning effort engaged national and international non-governmental organizations such as UNESCO, the Petra National Trust, and the Royal Society for the Conservation of Nature for valuable input. Gaining an understanding from the perspectives of these different groups informed a plan to discourage an over-dependence upon tourism and creation of concepts for promoting continued traditional practices. The Master Plan employs agricultural soils preservation regulations, ensuring that the current dryland farming practices may continue.

Uniqueness:

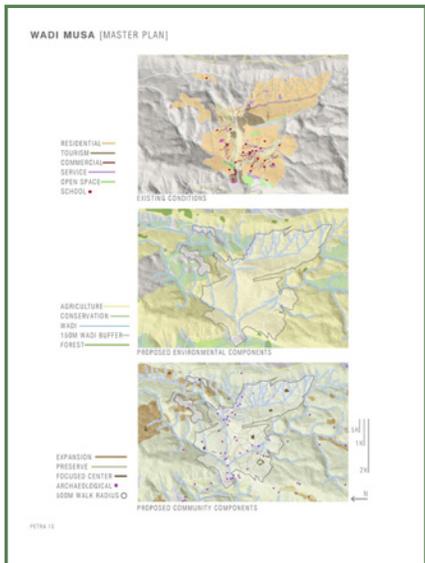
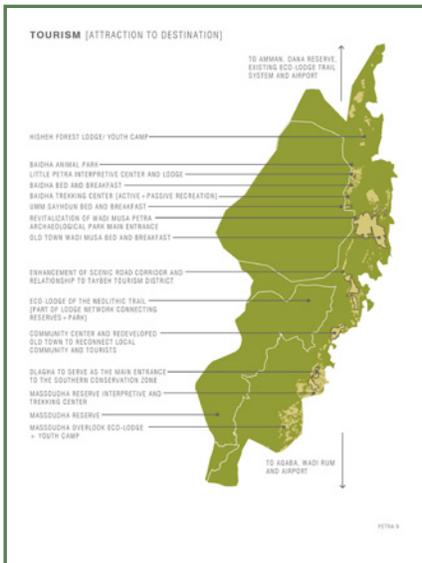
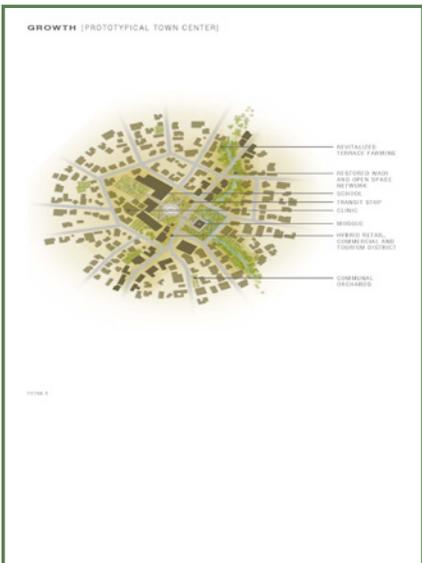
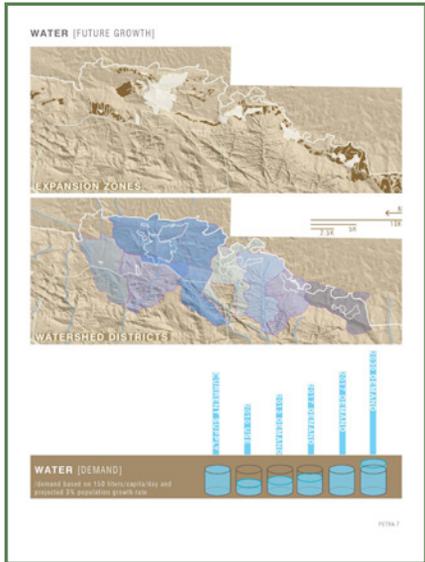
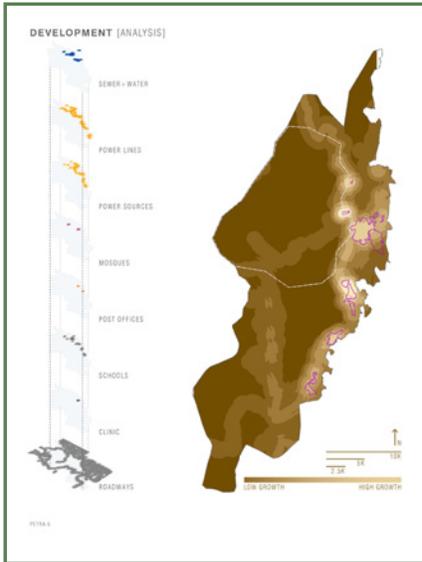
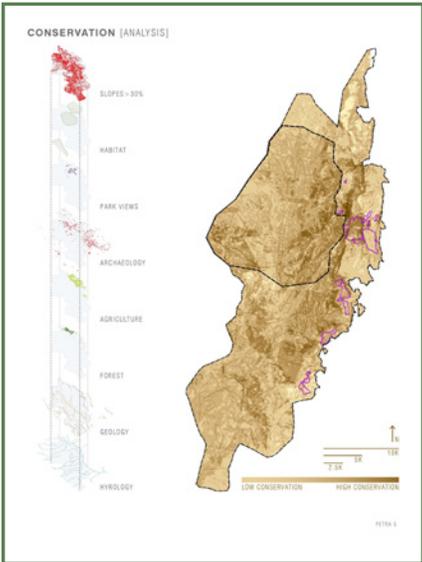
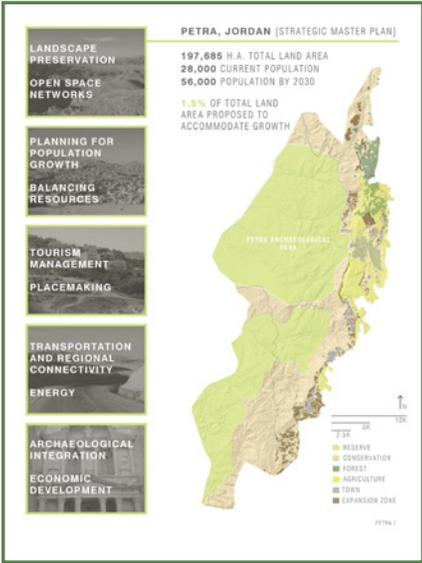
The economy of the Petra Region had traditionally relied on agriculture. However, the importance of agriculture has diminished compared to tourism because of the higher income prospects in tourism and the increasingly difficult climatic conditions for agriculture. The main growth driver over the last years has been tourism. Also, tourism in Jordan has fluctuated because of external reasons such as political insecurity in the region or larger macro-economic developments. Therefore, economic diversification would reduce the dependency on tourism and would offer a larger range of job opportunities.

Currently, international conglomerate companies dominate the economic opportunities of the region while the local people have little opportunity to earn a livelihood. Poverty juxtaposes a rich tourism based economy. The plan outlines a series of strategic investments which will raise Petra’s stature as an international tourism destination and provide new opportunities for residents of the region and the country of Jordan. The plan also addresses dependencies on unsustainable tourism practices and provides opportunities for economic diversification. The plan provides strategies for destination management and marketing to increase the average length of stay and average spending per visitor, as well as visitor satisfaction. The economic development strategy works with the land use plans to define high and low-intensity tourism areas which provide different levels of social functions, attractions, accommodation, investment, transportation and infrastructure.

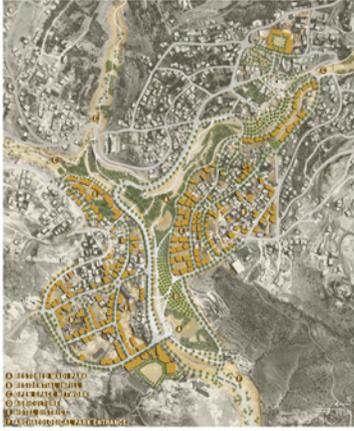
Zoning and placemaking plans were created for each of the six communities, taking into consideration public input regarding tourism development, density, character of development and transportation recommendations, including an integrated regional bus system which moves commercial bus traffic to an intercept parking and transportation facility at the outskirts of Wadi Musa, the major gateway to the Park. Tourists and locals are then transported via smaller, more environmentally friendly buses to the archaeological park and to the other communities and sites of the region. This was the first regional proposal for managing the transportation impacts of mass tourism.

Significance:

The plan is recognized as an important step in the Petra region's transformation from mere attraction to a global destination. The plan provides a long term vision which guides the preservation of one of the Seven Wonders of the World serving as a model for similar circumstances which seek to balance tourism development with natural resource and cultural preservation. Further, the plan exhibits the extent and possibilities of landscape architecture and the role landscape architects can have on large scale, multidimensional planning projects. The landscape architect was responsible for the large scale master plan of the region as well as the detailed placemaking plans for each of the six communities. The project highlights the importance of landscape architecture in the 21st century, not only how the profession can interact with and lead a multi-disciplinary team, but also how the profession can inform sustainable, comprehensive visions at all scales in the global context.

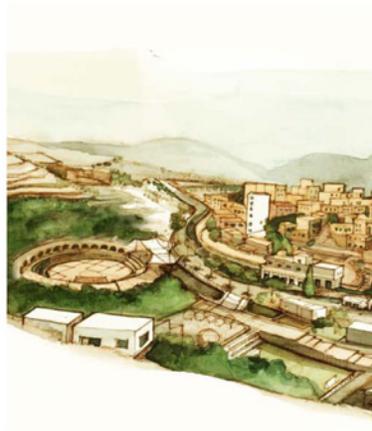


WADI MUSA [CENTRAL PARK VISION PLAN]



PETRA 11

WADI MUSA [CENTRAL PARK VISION RENDERING]



PETRA 12

RAJIF DOWNTOWN [TRANSFORMED]



PROPOSED



EXISTING

PETRA 13

UMM SAYHOUN MAIN STREET [TRANSFORMED]



PROPOSED



EXISTING

PETRA 14