

NEW GOURNA, EGYPT: CONSERVATION AND COMMUNITY

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Abstract

In 2009, UNESCO initiated a Safeguarding Project of Hassan Fathy’s New Gourn Village. In 2010, after New Gourn was included on the World Monuments Watch, World Monuments Fund (WMF) joined forces with UNESCO to evaluate conditions. WMF’s contribution included a community assessment to integrate social and economic concerns into decision-making about the future of the village. The findings of the assessment underscore difficult challenges regarding the conservation of human settlements and the complex relationship between people and heritage. Hassan Fathy inspired a new generation of practitioners worldwide through his integration of earthen materials with modern architectural principles. His innovative mixed-use plan for New Gourn, incorporating schools and other public buildings, remains a powerful and well-preserved element of the village; however, nearly 40 percent of the original buildings have been lost and many have been significantly modified. The loss and modification of these structures are attributable to a number of factors, including changing environmental conditions, technical issues, as well as evolving social dynamics. In short, Fathy’s buildings, in their traditional form, do not effectively meet the needs of most inhabitants today. To ensure the sustainability of the community, as well as preserve the legacy of Fathy, this social reality must be reconciled with the goals of protecting this earthen architecture icon. The process of creating – and now conserving -- New Gourn is as important as the product itself. Fathy championed the inclusion and empowerment of society’s less fortunate through participation in design and building processes, a signature theme in his seminal publication, Architecture for the Poor. As planning for the village moves forward, particularly in light of political shifts, such engagement will be evermore critical. This paper addresses the tensions between heritage conservation and social needs, and examines how community participation can serve as a tool to forge common aims.

1. INTRODUCTION

At New Gourn, Hassan Fathy undertook an experiment to promote vernacular building traditions and integrated planning through participatory design and construction. Intended as a model public housing project and perhaps the codification of a national style, the mud-brick domed dwellings gained international attention and are today considered early experiments with appropriate technology and sustainable architectural systems. Fathy also insisted on the construction of schools, as well as a mosque, a khan, and a souk within the village. While many original Fathy buildings have been renovated or replaced, the New Gourn community thrives. The village remains a place strongly rooted in the social principles set forth in Fathy’s mixed use plan, which centered on education, commerce, and religion. This small, experimental village remains a focus of global interest. New Gourn was nominated to the World

Monuments Watch in 2010, just as UNESCO spearheaded an initiative to safeguard the village. In collaboration with UNESCO and the Luxor Governorate, World Monuments Fund (WMF) undertook an assessment study in the fall of 2010 to understand the relationship between the people and place of New Gourn, which included a survey and interviews with more than a third of New Gourn’s households (1) (Haney, Allen, Avrami, and Raynolds, 2011). One of the most poignant lessons learned by Hassan Fathy in the experiment of New Gourn is that community participation is critical. To design or conserve a built environment requires understanding of its inhabitants – the ways in which they use and re-shape space, their quality of life, and their values. The residents of New Gourn are its primary stewards. The safeguarding and sustainability of the village hinge on effectively incorporating the concerns of the community into planning efforts. With this in

mind, the aims of this assessment included the following:

- Analyze social and economic conditions;
- Identify factors of change within the community and environment;
- Study use of space and adaptation patterns;
- Examine the community’s attachment to place and concerns for its future.

2. DIFFERENT STAKEHOLDERS, DIFFERENT VALUES

That New Gourn is a treasured place of great importance is not disputed by the various stakeholders associated with this architectural heritage and the Fathy tradition, from local residents to international scholars. However, there is less agreement with regard to the elements and values – tangible and intangible – that constitute its cultural significance. Therein lies a fundamental tension regarding how New Gourn should be preserved. The conservation community has traditionally focused on original design and fabric. Scholarship in the field and shifting paradigms have engendered greater recognition of the evolution of the built environment over time. Yet New Gourn, as a planned community created during a distinct moment in history, seems to defy that notion. As Fathy’s greatest opus and most profound disappointment, the fact that the village and its design are an ever evolving construct is often lost, in reverence to the man and his legacy. As one looks upon the vestiges of this 65-year old experiment, with its graceful architecture and social idealism, it is difficult not to wish it whole again. The reality, however, is that New Gourn has changed. As Fathy himself foresaw:

... a village, after many generations have lived in it, comes not only to fit its inhabitants’ routine of work and recreation, but grows to reflect the oddities of its community...The buildings take on the many-dimensional shape of the society, as an old shoe takes the peculiar shape of one man’s foot, or rather as some growing plant constantly adapts itself to its environment (Fathy, 1973, 51).

The village of New Gourn has indeed grown and adapted. Buildings have been modified, expanded, and replaced in response to evolving social, economic, and environmental factors. These same factors have spurred a common trend within the village to abandon the use of earthen materials in such alterations. This dynamic puts conservation interests, which champion Fathy’s application of sustainable materials and vernacular forms, potentially at odds with those of local inhabitants.

3. FACTORS OF CHANGE

3.1 Environmental Factors

According to residents, a number of environmental factors have influenced the alteration and replacement of buildings within New Gourn, first and foremost of these is changes in

groundwater conditions. Older residents who participated in New Gourn’s construction maintain that the water table was approximately 3.5 meters below ground level 60 years ago and has now risen to approximately 40-50 cm below ground level. This may be attributed to a number of factors:

- Uncollected sewage is a significant problem that is potentially contributing to groundwater accumulation. Informal interviews conducted at the Egyptian Water and Waste Water Authority indicate that fresh water delivered through the West Bank piping network for domestic use amounts to around 400,000 m3 per month, while the collected sewage water is 40,000 m3per month—a shortfall of 90%.
- Local agricultural irrigation and run off, and recent regional irrigation projects and barrages (including the Aswan High Dam) are likely contributing factors to the rise of the water table.
- The increase in impervious surfaces within the village, including the paving of roads (near the mosque) and the use of concrete and fired brick in construction, have changed the patterns of groundwater percolation, surface evaporation, and run off. These groundwater conditions increase the capillary rise of moisture and salt migration, contributing to the disaggregation of limestone within foundations and the de-cohesion of mud bricks. In walls, this results in significant basal erosion, destroying the outer wythes of earthen bricks. The lower courses show efflorescence, and the failure of the physicochemical matrix forms deepening concave features at the wall base. The degradation compromises structural integrity, thereby reducing the load-bearing capacity of foundations and lower story walls. When repairs are made or buildings altered, residents tend to use cement-based materials, which are perceived to be more durable and to require less frequent maintenance than earthen materials, given the groundwater conditions.

3.2 Social factors

Complex social and economic factors likewise influence changes to the architecture, the most prevalent of these being growing households. Among surveyed households, more than half (52%) contain six to nine members; 27% contain from two to five members, and 12% contain more than nine members. Nearly all (90%) of those interviewed are married and most often live in households with an average of six members. The relatively large household size and the increasing number of households within New Gourn can be attributed to three main factors:

- Married sons are expected to raise their families close to or in their parents’ home. This allows commodities and tasks to be shared and provides support for aging parents. As it is not possible to expand the footprint of buildings or to acquire adjacent land, many married sons live in the same dwelling as their parents, often on floors above.
- Some men take two or more wives, and custom requires them to provide housing for all wives equally. In several cases, Fathy homes have been split in half to accommodate two households; depending on available space this can mean two



Fig.1 New Gournia Resident showing effects of rising damp (credits: World Monuments Fund/Community Consortium, 2010)

kitchens and two bathrooms.

- In New Gournia, daughters remain in their parents' home until marriage. The costs associated with marriage in Egypt have climbed dramatically in recent decades and young people are consequently staying home longer and marrying older.

In short, New Gournia, as a thriving traditional community, must house a growing population. At the time construction was halted on New Gournia, the completed structures were intended to house 77 households. Extended families have expanded, and those same building plots now house the equivalent of 174 households. To accommodate these evolving needs, original buildings have been subdivided, enlarged, and in some cases replaced.

4. CHANGING FABRIC, ENDURING VALUES

4.1 Alterations to the architecture and construction materials

Many original structures have not survived in New Gournia. Among the remaining Fathy buildings of New Gournia, interior spaces have been refashioned to accommodate multiple households in dwellings intended for a single family's use, or have been altered and expanded with added extra floors. The following are typical alterations:

- Fathy's exterior open porches have been transformed into rooms, often small reception areas.
- Open loggias have been roofed and many domes demolished to accommodate more rooms on the second floor. Many residents feel unsafe under Fathy's domes, and find them impractical encroachments on usable space.
- Most archways, doorways, and window openings have been modified; retrofitted door and window components tend to be rectangular and smaller than the original opening. The voids are filled, substituted, or partially covered with cardboard or sheets of wood.
- Nearly all front rooms constitute the living or most public

room (Fathy's intended use) and often double as sleeping quarters. These rooms are now generally entered from the street through a rectangular door frame. In many cases, Fathy's original arched entrances can be seen from the inside and as masonry traces on façades.

- Original open staircases have either been enclosed and/or have had balustrades added to accommodate changes in upper-floor usage and to ensure safety for the elderly and children.
- Almost every Fathy household has a cooking area and toilets. Many residents devote a room to stabling animals. When the house is divided to create a household for a married son or second wife, the second floor or second half of the house may lack these facilities.

These design alterations and the use of modern materials are largely perceived by the world beyond New Gournia, especially by those in the heritage conservation and earthen-architecture fields, as disregard for Fathy's original design. However, while Fathy's tangible legacy at New Gournia – the buildings and the materials – may be significantly altered, the intangible values that he promoted through both his plan and his collaborative-design process thrive.

4.2 Preservation of the plan and community vision

While the number of households in New Gournia has more than doubled and the architecture has changed, Fathy's plan has endured, both in design and vision. The mixed-use plan was extremely innovative for the time and place. While the mid-20th century is marked by a trend toward rational planning paradigms that segregated uses within urban environments, Fathy fully recognized the importance of providing for a concentrated diversity of spaces and services. Although he is recognized within the field of architecture – and especially earthen architecture – for his graceful design of buildings and sustainable materials, his plan was equally seminal with regard to land use and community development.

Today, altered houses and replacement residential structures generally do not extend beyond the original footprints. The public spaces that Fathy included in his plan for New Gournia have been adapted but generally remained, some to meet the evolving needs and demands of the community and some in response to change in the Qurna district. Many public structures have been retained, stabilized, and restored, while others have been reclaimed and adaptively reused.

A testimony to Fathy's enduring legacy, the mosque in New Gournia remains an intact and iconic centerpiece. Still today, New Gournia contains no other place for collective spiritual thought, and the landmark continues to form the moral fiber of community identity. It is also now home to a regional office of Awkaf property management. The public square in front of the mosque, now paved, remains as a public gathering space for residents, as does the khan.

Fathy's "village hall" has been replaced with a concrete structure, but it continues to serve a variety of community



Fig.2 New Gournia residents gathered in the khan (credits: World Monuments Fund/Community Consortium, 2010)

events, including weddings and funerals. Whenever possible, community members contribute small sums to maintain and clean the facility, as it continues to be an important piece of the social and physical fabric of New Gournia. A community member noted that if families prefer to hold celebrations at home or in the public space, the community hall lends its wooden benches at no cost.

Fathy insisted on the construction of schools as part of the integrated plan for New Gournia. The original plan specified that two schools, one for boys and one for girls, were to be constructed. Although the boys' school no longer exists in its original form and the girls' school was never built, New Gournia remains a place strongly tied to and proud of its history of accessible education. Today, a number of operating, mixed-gender schools are located in the immediate vicinity and are well attended by local children.

Envisioned as a place bustling with local merchants, Fathy's souk was, by 1961, an underused space. However, the former souk now houses the Upper Egypt Flour Mills storage area and distribution point; the company conveniently services New Gournia bakers and is the sole enterprise in the former souk. Understandably, commercial businesses have instead concentrated along al-Temsalyn Street, a major thoroughfare that now runs along the south perimeter of the village.

The continued use of interstitial space, a component of Fathy's overall vision for New Gournia, is an important component of the public landscape. Contemporary streetscapes containing sleeping benches (*mastabas*), makeshift stables, and creative plantings all reflect Fathy's original vision. Outlying agricultural lands have been continually used by residents of New Gournia for grazing, planting, and harvesting.

New Gournia continues to uphold the vision first employed by Hassan Fathy because unifying elements, mosque and *mastabas* alike, endure and change. The social principles of access to education, commerce, religion, and community,

probably the most important set forth in Fathy's plan, are still manifest in the New Gournia of today.

The end result is a preserved plan and vision of New Gournia through adaptation, as well as densification. Such increases in density are the most sustainable way to manage urban growth and prevent sprawl around cities. Thus, in its evolution, New Gournia has ironically championed Fathy's principles of sustainability writ large. It has maintained a cultural tradition of close-knit families that maximize socio-economic efficiency through shared and adapted households. It has nurtured the value of education by providing easy access to schools and other social services. And, quite astonishingly, it has accommodated a growing population while minimizing the consumption of open space and land, thereby preserving the important agricultural resources that help support the community.

However, this phenomenon of densification is in potential conflict with heritage conservation, which tends to emphasize the traditional form and fabric of the cultural landscape. A primary challenge of any safeguarding efforts at New Gournia will be to resolve these tensions through conservation approaches that meet the full range of stakeholder interests.

5. A PARTICIPATORY PROCESS

This small experimental village is grappling with challenges similar to those of many larger, historic urban landscapes and settlements. Concerns regarding sustainable land use preclude expansion into open space surrounding towns and cities, and compel the need for increased density to accommodate growing urban populations. That densification can promote environmental, and often social and economic sustainability, but it can likewise erode historic fabric. In a place like New Gournia, what are the options for maintaining the village as a vibrant urban environment and also honoring the Fathy legacy? How can preservation work to the benefit of the local community, as well as the many other stakeholders that cherish this architectural icon?

The decisions residents have taken to remain in, manage, and maintain New Gournia derive from a host of factors. However, the modification of this landscape should not be readily dismissed as a lack of respect for Fathy's legacy. On the contrary, New Gournia holds significant meaning for its residents, with 78% wanting to remain in the village, and a large percentage wanting to remain in Fathy dwellings. This sense of grounding is accompanied by the realization of the significance of Fathy's work. Over half of interviewed residents believe that Hassan Fathy and the model he created at New Gournia are of great import. This notion includes the recognition of Fathy's building style as good, though not appropriate to current environmental conditions or extended family lifestyles.

One of Fathy's greatest contributions to architectural scholarship and practice was his profound understanding of the inextricable link between people and places. Intimate and safe *hawaari* (residential enclaves/alleyways), extended families spanning several generations, and visual and physical connection



Fig.3 and fig.4 Grazing animals in the New Gournia fields A shaded New Gournia Streetscape (credits: World Monuments Fund/Community Consortium, 2010)

to greater Luxor have given rise to a community with a strong sense of and attachment to their environment. This attachment to place is codified by residents who do care about building fabric and frequently extend limited family resources to make repairs and renovations.

As the primary stewards of New Gournia, residents are critical stakeholders in the conservation process. Living and working in the historic landscape, they are the linchpin to preserving the core values of New Gournia, which extend far beyond design and fabric. That the village remains a vibrant, closely knit community is testament to the endurance of Fathy's ideals. He gave dimension to notions of urban intimacy, access to education, and community engagement, all of which were codified in his innovative, mixed-use plan. These elements remain as cornerstones of New Gournia's physical and social foundation, and likewise can serve as tools for forging common ground amongst the varied interests engaged in planning for its future.

The institutions involved in safeguarding the village must balance these sometimes conflicting values regarding the significance and conservation of New Gournia, but they have a tremendous resource and precedent in the community. The Fathy legacy is as much about participatory design as it is about the forms resulting from it. Capitalizing on this history by engaging the community in cooperative planning would tap a critical resource. It would enable a sharing of knowledge and inform a more robust program of revitalization, one that serves community needs, as well as heritage interests.

A fundamental first step in safeguarding New Gournia and engaging its residents is the establishment of a structured vehicle for community participation. Open, public meetings involving government officials and others engaged in conservation efforts will be a critical element, providing a regular forum for gathering

Notes

(1) A downloadable PDF of the assessment report can be found at: <http://www.wmf.org/dig-deeper/publication/new-gournia-village-conservation-and-community>. An associated film can also be found at: <http://www.wmf.org/video/hassan-fathys-new-gournia-past-present-future>.

References

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and sharing information. Such communication will dispel the rumors that prompt anxiety and mistrust on the part of local residents, whose ties to Old Gournia stir up a history fraught with displacement and relocation. Ultimately, a structured vehicle for participatory planning will build mutual respect and trust amongst the various stakeholders and entities involved in the project.

6. CONCLUSION

As noted above, in the eyes of some conservation professionals, the New Gournia community has destroyed Fathy's masterpiece through modifications and new construction. However, this assessment found a great deal of respect for the history and heritage of New Gournia among residents. Given the evolving social dynamics and the problems caused by changing environmental conditions, their actions are borne out of necessity. They are taken with the best of intentions, and with limited financial and information resources. Their stewardship of New Gournia should not be judged by the loss of original fabric, but rather through their perpetuation of Fathy's principles of community empowerment and sustainability.

While many individual Fathy buildings have been replaced and renovated, the findings of this assessment support the idea that the cultural landscape of New Gournia today is very much a product of Hassan Fathy. In this respect, the value of this place and of Fathy's legacy is not simply that of mud brick and plaster. It is not even that of domed dwellings and open loggias. However, it is that of the place-based social fabric that serves to knit together this community. The unifying, somewhat intangible, elements of this plan concern education, religion, and economy all of which remain intact in New Gournia.

Thus, conservation of the built environment of New Gournia should be a community-driven process that integrates issues of environmental, economic, and social sustainability – from improved housing to agricultural land use to tourism management – into a balanced set of actions. Effectively integrating heritage protection into a broader program of infrastructure and service improvements, education, and development will forge a strong foundation for sustainable preservation of Fathy's legacy and improved quality of life within the village.

CULTURAL LANDSCAPE OF THE DRÂA VALLEY, MOROCCO

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Abstract

The six Drâa Valley oases are a system of several rural villages called ksour, characterized by a profound balance between agronomic, economic, social, architectural, ecological, and cultural dimensions. The Drâa valley oases are an exemplar of secular sustainable living systems and contain also a diversity of ethnic groups that defines the rich socio-cultural diversity of the area. Sophisticated irrigation systems, ruled by traditional local resource-management institutions to ensure a fair water distribution, integrated with significant earthen architecture, constitute a complex and important, both material and immaterial, cultural heritage.

Local building technologies use raw earth as the main material; earth, due to its easy availability and its low cost, constitutes a precious resource in the building of construction elements, from the structural to the decorative. The predominantly earthen-building techniques, used simultaneously and symbiotically in the different architectural elements, are rammed-earth and adobe.

In the Drâa Valley the cultural heritage represents an undeniable value and an excellent and competitive resource for quality, distribution, levels of preservation and permanence in today's cultural and socio-economic structures – thus, it is a decisive element in the process of local development.

Effective projects toward local development and cultural heritage conservation and innovation, in conjunction with the objective to improve living conditions of local populations, should therefore be founded on these general actions:

- Identification and systemic understanding of local, traditional and sustainable knowledge by all actors and especially by local populations;
- Integration of cultural heritage with the processes of local development, in particular adapting the traditional houses into new cultural and living needs, to end the general abandonment of housing and the loss of this important heritage;
- Construction of government and management systems in which the local actors know how to have dialogue and organize the real course of development, in an autonomous way, improving the specificities of identity that characterize the place.

1. INTRODUCTION

Situated in the southeast of Morocco and located in a relatively isolated and distant position in relation to the principal city centers of the country, the Drâa Valley stands out for its rich historical and cultural heritage. The six oases of the Drâa Valley are a relevant and unique environmental and social system developed by man in a constraining and harsh environment. They display a complex, diversified and intense relationship between man and nature, which has been developed over millennia. Sophisticated irrigation systems, managed by traditional local governance institutions, not only ensure a fair water distribution, but also constitute a crucial element of the oasis agricultural and social systems (Badia, Cusidó, Luria, and Noy, 1998).

These ancient socioeconomic systems based on the date palm, experimented through more than 2,000 years, produce an urban network of ksour (villages) and an important architectural

heritage, strongly integrated with palm trees, base of the pre-desert oasis ecosystem. The earthen architectures and the palm trees are strictly related to the harsh, dry and hot climate, offering shade and lowering the ambient temperature, making it possible to live in the pre-Sahara landscape in a sustainable and low-energy manner, creating a surprising place of recreation (Mecca and Biondi, 2005; Mecca, Tonietti, and Rovero, 2007).

Traditional water resource management systems, transhumance practices, traditional earthen-architectural design of human habitats and social cohesion among local people and tribes are relevant examples of local knowledge, of sustainable and low-energy strategies for human settlements in desert regions. Since 2,000, The Drâa Valley Oases has belonged to the UNESCO Man and Biosphere Reserve, called “*Réserve de biosphère des oasis du sud Marocain*”. The Museum Project