

# **The Adaptation Process of a Resettled Community to the Newly-Built Environment**

## **A Study of the Nubian Experience in Egypt**

**Wael Salah FAHMI**

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*The Adaptation Process of a Resettled Community to the Newly-Built Environment:  
A Study of the Nubian Experience in Egypt*

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***DEDICATION***

To my Mother for her precious support

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## ABSTRACT

Generally, construction of dams is regarded as means of economic progress in many countries. However, major consequences of such projects are the inundation of upstream areas and the resettlement of entire communities in newly-built environments where they experience dramatic transformation in their lifestyles. The present study takes the Nubian resettlement experience after the creation of Lake Nasser that submerged their old settlements, along the river Nile.

Following their resettlement, the design of the newly-built environment disrupted the Nubian traditional lifestyles and patterns of privacy mechanisms, territoriality and social interaction. However, the inadequacy of the newly-built environment was mainly attributed to the Nubians' transfer from spacious homes in the old villages to compact contiguous houses in the new settlements. The arrangement of these resettlement state built houses, distributed on the basis of household size, has further resulted in the fragmentation and the dispersion of traditional kinship-based neighborhoods. Within an interdisciplinary approach, the study is based on theoretical, historical and conceptual themes and on empirical research. It sets out to examine the households' responses towards, and adaptation mechanisms with, the newly-built environment. The thesis looks critically at the achievements of imposed top-down planning of built environments in meeting the socio-cultural and economic needs of those resettled. The empirical research was based on the sampling of three villages from the northern Kenuzi Nubian region. Physical, social and behavioral surveys were undertaken within a framework of two stages of resettlement houses.

The research demonstrated that the relationship between the Nubian culture and the newly-built forms has changed, transforming the concept of the house from a social control mechanism to a physical structure that signified the upward social mobility and economic achievements of its households. Their adaptation process was mainly influenced by socio-cultural and economic factors as a result of their urban migration and resettlement experiences. Differential responses ranged from high income and acculturated households (urbanites) who introduced major structural modifications and spatial changes, to low income and enculturated (female-headed) households (localites) in houses with minor functional changes. Different patterns of territoriality and social interaction outside localites' houses, contrasted with the private lifestyles characteristic of urbanite households. The thesis, therefore, revealed an emerging pattern of acculturation, and socio-economic stratification within Nubian households that determined their degree of adaptation. Accordingly, the elements (home ranges, core areas, territories, jurisdictions and personal spaces) that constituted the socio-spatial patterns of the newly-built environment were identified, reflecting different value systems, expectations and evaluations of the newly-built environment.

The study calls for more in-depth study of resettlement schemes and specifically their built environments using multi-dimensional conceptual frameworks that employ different techniques of data analysis. Furthermore, the study views the imperative need for a serviced settlement (site and service approach) integrated within a comprehensive social policy, rather than the provision of housing, mainly in the old lands by the shores of Lake



Nasser. It is centrally important to develop traditional earth-construction materials (mud-bricks) and appropriate building technologies that would provide low cost and responsive housing. More concern with environmental issues should be given with respect to innovations such as the processing of wastes recycled for use as energy and fertilizers. There is a need to involve grass root or NGOs, together with more community participation in the design process and the implementation of built environments that meet peoples' socio-cultural and economic needs.

## Chapter One

### INTRODUCTION

In many countries rural development, considered as means of economic progress, is carried out without sufficient regard for its impact on rural settlement systems and local communities. Often technical and financial aspects, and national economic policies take precedence over socio-cultural and environmental considerations. Typical of this approach are major river basin development projects where the emphasis is on water storage and hydroelectric power generation, with the effect on local people's way of life often being treated in a cursory manner.

An example of this approach is the construction of dams, generally regarded as one of the keys to a country's economic progress through the supply of hydroelectric power, irrigation of arable land, and reclamation of new areas. Indeed, the construction of dams has an enormous impact on the environment, with the flooding of upstream areas and the resettlement of entire communities. Consequently, nomads are settled, pastoralist turned into farmers and subsistence farmers into modern ones.

Whilst governments regard resettlement and development as a vital means of bringing progress to people, they usually ignore its socio-cultural and economic effects on lifestyles of indigenous and traditional communities (Scudder 1968, Chambers 1969). A classic example is the Egyptian Nubian experience after relocation following the construction of the Aswan High Dam in 1964, and the consequent inundation of their villages. Moreover, on examining resettlement schemes in general and the Nubians' in particular, two common aspects co-exist. First, a planned social change that transforms the socio-cultural and economic characteristics of the relocated communities, and secondly, a planned transfer of population from their homelands to a newly-built environment different in physical and spatial properties.

The current study, however, examines the second aspect of the resettlement process, focusing on the Nubian community in periods of social change, as expressed by peoples' responses and adaptation to the newly-built environment (at settlement and house

levels). Within the context of the study, the process of social change, as a consequence of the Nubians' resettlement and urban migratory experiences, led to contact between two or more autonomous cultural systems (cultural pluralism); rural traditional (enculturated) and urban modern (acculturated) with a range of cultural systems between them (Berry 1980). This process is regarded across the resettlement stages, as leading from contact to conflict and finally to adaptation (Berry 1980).

### **1.1. STATEMENT OF THE PROBLEM**

The first stage of the Nubian resettlement (1960-1964), was characterized by rapidity in providing economic structures to shelter relocated people that ignored social and behavioral properties of space. The new state built house in this case was regarded as a product which was static in size and shape unable, to withstand the changing values and needs of its households. This contradicted with the concept of 'home' within traditional Nubian culture that not only represented the physical structure, but also sheltered social groups and relations, economic functions and socialization processes. Additionally, the traditional Nubian home functioned as a symbol of status, achievement and social acceptance of its occupants. This was reflected in the interface between built forms and unbuilt spaces in the traditional Nubian environment.

In the new Nubian settlements, however, the traditional concept of the 'home' was violated with respect to privacy mechanisms, territorial control and social interaction. Whilst the new state built houses satisfied to some degree the primary need for shelter, they disregarded the socio-cultural and economic needs of their occupants, and hence failed to consider society and the built environment as an integral entity (as was the case in Old Nubia). However, Fahim (1981) argued that in the Egyptian Nubian case policy formulation was subject to so many strong pressures (especially the shortage of time), thus leading to heavy costs which could have been avoided. However, town planners and architects shifted the program towards high standards of housing with a more urban style (reinforced concrete), in contrast to traditional materials (earth construction), which characterized the old Nubian built environment. Moreover, in order to minimize

construction costs as well as facilitate agricultural practices and public services, settlements have been arranged in clustered agglomerations surrounded by land plots; an arrangement that disrupted the cohesive social structure characteristic of Old Nubia.

In addition, the settlement of the Nubians in densely populated villages led to close contacts between the different ethnic groups (Kenuzi, Arabs and Fedija). Thus, there are 43 resettlement villages with an average of 2000 people each, compared to Old Nubia's 535 villages and average population of 100 people each. These new villages are now located contiguous to each other with their old names preserved, forming clusters of settlements (agglomerations) separated by roads, canals and cultivated land, leaving little possibility for future expansion.

According to Fahim (1981), the design of the new settlements constituted a major source of stress and anxiety (as experienced by the Nubians in the second stage of resettlement, the transition stage between 1964 and 1975). This was because of the Nubians' transfer from spacious homes that characterized the old villages to compact, tight and contiguous houses, unable to accommodate different patterns of activities. Additionally, the distribution of adjacent new houses on the basis of similar household size resulted in the fragmentation and dispersion of the established socio-economic units of kinship-based neighborhoods. This meant that the newly-built environment was regarded as inadequate in generating balance and congruence between traditional and new lifestyles in periods of social change. Whether or not the Nubians were capable of adapting, there was a need to develop an adequate mechanism to cope with the newly-built environment, and hence avoid the destruction of the cultural identity of the Nubian resettled communities.

Therefore, arising from the process of resettlement, the present study tries to answer the question of continuity of the Nubian traditional culture in periods of imposed social change. It does this in relation to functional changes (structural modifications and spatial changes) introduced by households in their newly-built environment, and their resulting attitudes and behavioral patterns. Henceforth, the current research examines the functional and behavioral adaptation mechanisms adopted by the Nubian households in

order to cope with the inadequacies of the newly-built environment in meeting their socio-cultural and economic needs. The focus lies on the third stage of resettlement between 1975 and 1990.

## **1.2 PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of this research is to evaluate the functional (actual and modified) and behavioral (covert and overt) dimensions of the Nubian newly-built environment. This involves the study of the socio-cultural and economic development of the new settlements, and the influence of these aspects on structural modifications and spatial changes (functional changes) introduced by households in the resettlement state built houses. It is further essential to assess attitudinal responses (covert dimension), as measured by household satisfaction with functional changes. Particular regard is paid to attitudes towards spatial requirements and organizations. Finally, activity systems, territorial mechanisms and social interaction elaborate the behavioral patterns inside and outside the houses. This is ultimately interpreted in terms of socio-spatial patterns that have evolved in order to cope with the inadequacies of the newly-built environment.

The main objectives of the study are therefore to:

**a) Evaluate the adequacy of the resettlement process by focusing on the Nubians' adaptation to their newly-built environment.**

The adaptation process is measured through a study of the interaction of functional and behavioral responses to the newly-built environment. This will determine the adequacy of the resettlement, dependent on the Nubians' ability to develop responsive and satisfactory coping mechanisms in keeping with the newly-built environment.

**b) Examine the effect of structural modifications and spatial alterations in the new houses on the Nubians' behavioral patterns and social organization.**

To analyze the degree of 'fit' between the new house form and traditional Nubian culture in periods of social change, a conceptual framework of the adaptation process is adopted. It will show the socio-spatial linkage between modified functional spaces; and households'

activity systems, territorial behaviors and social interaction inside and outside the houses. This will reveal the qualities of the Nubian newly-built environment that are regarded as desirable compared to traditional built environment that provided a smoothly functioning social mechanism.

**c) Study the effects of the socio-cultural and economic transformation of the Nubians, as a result of both their resettlement and urban migration, on functional and behavioral adaptation processes in relation to the newly-built environment.**

The Nubian cultural pluralism, as a result of their resettlement and urban migratory patterns, is explored on two levels (Fahim 1970). The first is examined following the concept of vertical level of interaction between the Nubians and the rest of the Egyptian society, as indicated by the acculturation process (behavior influenced by other cultures impinging from outside), to create an urban oriented culture. The second is discussed on a horizontal level of interaction within the Nubian community, as revealed by the enculturation process (a behavior influenced by one's own culture), to support traditional practices and value systems. Consequently, both processes are studied along lines of socio-economic stratification between different Nubian households.

Furthermore, the emerging patterns of acculturation and socio-economic stratification in the new Nubian settlements will nevertheless reflect differentiations in functional and behavioral adaptations to the newly-built environment. Indeed, it is important to note the exogenous factors that come to influence the local Nubian patterns. These would include changing government policies that affect life in the new settlements within the broader socio-political and economic structure of Egypt.

### **1.3 WIDER AIMS OF THE STUDY**

The present study aims at establishing a conceptual framework that examines the house as a sensitive barometer of mechanisms adopted by people to cope with imposed social changes. This enables an assessment to be made of the adequacy of the newly-built environment in terms of socio-spatial patterns, where functional forms and behavioral mechanisms are associated.

Using this conceptual framework, the study attempts to look critically at the achievements of imposed top-down planning of built environments in meeting the socio-cultural and economic needs of resettled communities.

#### **1.4 SIGNIFICANCE LIMITATIONS OF THE STUDY**

It is quite evident from the Egyptian experience, as in most developing countries, that the large-scale planning of resettlement schemes has often shown a degree of failure in meeting the socio-cultural and economic needs of relocated communities (Fahim 1981, Chambers 1969). This has been attributed to inadequate pre-investment surveys of physical and human resources, as well as social settings and cultural values as observed in the Nubian resettlement scheme.

As the Nubians' experience has been in operation for a number of years, many studies have been undertaken to evaluate the consequence of their resettlement in terms of economic returns, employment generation, social and psychological difficulties, financial and technical problems as well as administrative considerations (Fahim 1968,1981,1983). Results were often presented separately for each discipline such as sociology, anthropology, social-psychology and economic development. However, the little systematic evaluation that has been undertaken of the physical and spatial aspects of the resettlement was presented solely, regardless the socio-cultural and economic characteristics of the relocated communities (Fathy 1966, Lewis 1983).

Furthermore, within the focus of the current study, the relationship between people, culture and environment is not a new topic of research as it has formed the backbone of several disciplines in social and behavioral sciences (Rapoport 1969, Altman 1975). However, previous studies have shown the concern expressed by political scientists who were interested in geopolitics regarding the relationship between political processes and geographical and cultural factors. Moreover, whilst human ecologists examined migration and settlement patterns focusing on culture and environment, anthropologists studied how people in different cultures and periods in history have shaped their homes, communities and cities in relation to cultural and environmental variables.

Therefore, the interdisciplinary nature of the present study is more geared towards explaining a working method than providing generalized results. The significance of the approach lies in the introduction of an analytical tool that required the tapping of many sources and venturing into many fields, though sometimes tentatively, in the search for multi-disciplinary concepts. The approach thus attempts to add to the previous knowledge generated in resettlement experiences by recognizing the importance of a transactional approach (people, culture and environment) to the design of built environments, and which takes historical evidence in traditional (Nubian) cultures as its point of departure.

The nature of the approach has, nevertheless, proved difficult to encompass with regard to the in-depth coverage of the complex and diverse theories involved. It has tried to come to grips with the field of resettlement research from the point of view of established environment-behavior concepts. Based on the latter, the conceptual model adopted is yet to be applied beyond its exploratory stages and the specificity of the Nubians' case. To test its validity, there is a need for larger sampling frames and more longitudinal observations, both beyond the temporal and financial limits of the present study.

## **1.5 THE STUDY APPROACH AND HYPOTHESES**

The study adopts an exploratory interdisciplinary approach. However, on the one hand, the components of the research involve a theoretical approach as set out in Chapter Two, and a historical review as discussed in Chapter Three. In addition, Chapter Four adopts a conceptual framework that integrates both the theoretical and historical themes in the two previous chapters. On the other hand, an empirical research (Chapters Six to Nine) is applied to test the study hypotheses that emerged from the literature review discussed in the subsequent chapters.

### **1.5.1 The theoretical approach to resettlement and rural-urban migration**

Quite clearly, in the present study change is regarded as an integral part of the Nubian community within its own boundaries, similar to processes of transformation affecting rural areas in general, with respect to Egypt's political and economic developments.



However, Fahim (1968, 1970, 1983) and Geiser (1987) demonstrated that the Nubians' resettlement and historical urban migratory experiences have created a cultural pluralism within the Nubians social system. On the one hand, there are acculturated and more urban-oriented migrants (urbanites), and on the other hand, enculturated and rural-based non migrants (localites)(Berry 1980, Buttimer 1972)<sup>1</sup>.

This cultural pluralism was identified by Mitchell (1950) and Jones(1973)<sup>2</sup> in their classification of rural communities according to a set of opposite factors being attributable to their degree of acculturation and to existing patterns of social organization. The first set of factors are described as 'open-closed', where 'open' reveals a tendency towards a state of reception to external influences (acculturation), and with 'closed' denoting a rejection of new ideas and influences (enculturation). The second set of factors are defined as 'integration-disintegration', where 'integration' is seen as the absence of disharmony in the village's institutional life and 'disintegration' as the presence of disharmonies that create conflicts. Thus in any rural community there may be cultural pluralism between the interests of long standing rural-based residents and the new middle-class migrants; a

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<sup>1</sup> The terms 'localite' and 'urbanite' were used by Buttimer (1972) hypothetically to define polar types of residents in a study on social spaces in residential areas in Glasgow. However, in the present study these terms will be used to define traditional households with no or minimum migratory experiences and less acculturation patterns (localites) as compared to urbanized households with extensive migration and more acculturation patterns (urbanites).

<sup>2</sup> Following these two factors, rural communities were classified into four types;

- Open-integrated rural community with a large diversity of occupations, displaying in its institutional and organizational framework an adaptability towards changing conditions. This community acts as a social and economic center for several surrounding villages. In addition, the community is self-sufficient socially and links with the larger society.
- Closed-integrated rural community with isolated and stable population, variable in size and inward looking. The community is also self-contained with traditional firm boundaries against outside influences, with well defined roles and a persistence of its traditional culture.
- Open-disintegrated rural community is affected by change at a rate, which cannot be assimilated with rapidly growing population. This causes instability in its social organization and greater external influences as well as internal tensions and conflicts.
- Closed-disintegrated rural community is small and decreasing in size with declining agricultural labor requirements, thus leading to a small population unable to maintain viable village economy. It is also characterized by lack of services and facilities (common in older industrial areas and remoter rural areas).

In the context of the case study the traditional Nubian community is classified as closed-integrated, whilst after the resettlement it ranged between open-disintegrated and open-integrated according to the Nubians' degree of adaptability and acculturation.