

VILLAGE STUDY, NEW GOURNA

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## INTRODUCTION

"Architectural Feedback", that is analysing the performance of a project after it has been in use for some time, is an exercise whose value is widely accepted but seldom carried out.

Studying a rural situation to establish guidelines for designing in such areas is an even rarer event. Our stay at New Gournna provided us with an opportunity to do both.

New Gournna is a village designed and built by Prof. Hasan Fathy in 1948. It is built entirely out of mud brick, using vault and dome roof construction. We spent four weeks living in New Gournna, building a dwelling unit and carrying out this survey.

A lot of our background information on the subject was gathered through a book Professor Fathy wrote on his experience in building the village.\* This was complemented by long talks with Professor Fathy while we were in Cairo prior to going to the village. The simple experience of living in the village amongst people who were friendly, always ready to invite us into their houses, talk about their problems and take us to friends in the neighbouring villages who were equally friendly, and ready to show us around, helped us to build up a good picture of life in the area and how the villages we studied met, modified and were modified by these life styles.

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\* "A tale of two villages" - Professor H. Fathy - Ministry of Culture, Cairo.

## NEW GOURNA

### BACKGROUND - 1945-1973

The village of New Gourna is now about 28 years old. It differs from the neighbouring villages in that it was built according to a specific plan drawn up and following the concepts of Prof. Hassan Fathy. We spent three weeks living in one of the houses in the village, building a small mudbrick house and carrying out a visual survey of New Gourna, in particular eight of the houses within it. The idea of the survey was primarily to compare New Gourna as it is today with (a) New Gourna as it was 28 years ago according to Prof. Fathy's design concepts.

(b) Neighbouring, traditional, unplanned villages e.g. parts of Baerat.

(c) Old Gourna, 1 km. away, still growing out of the Tombs of the Nobles and which by now should have been evacuated and all the inhabitants moved to N. Gourna, if all had gone according to the governments original intentions. (see map).

This brings one to mention the history of New Gourna, why it was designed and why only a quarter of it was eventually built.

Old Gourna, as stated above, is sited on the hillsides comprising part of the Cemetery of Thebes. At the time of construction, 7000 people lived in the five hamlets which make up Old Gourna. These people almost entirely depended for their existence on tomb robbery, which had been started by their fathers fifty years before.

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The immediate environment is arid and hot and could not support all these people and adjacent farmland was mostly farmed by rich landowners and inaccessible to the Gournis.

Because of the loss of a great number of priceless treasures which were found by the villagers and sold off cheaply to the dealers in the city, the Dept. of Antiquities responsible for the Cemetery of Thebes, decided that the whole village had to be moved and the area taken over completely by the Government. It was estimated that 1 million Egyptian pounds would cover the cost of designing and building a new village 1 km. away towards the river and Luxor, on a field kept permanently free from flood waters by a system of dikes. The new village was to house 900 families, which meant that in the time allocated, 30 houses, or at least 3 family neighbourhoods, had to be built per month. This was to be New Gourna.

However, making plans and carrying them through are two different things. The inhabitants might not necessarily wish to move as one would want them to and perhaps the reasons given do not satisfy them.

Is it right to move people from their homes and familiar surroundings to a totally new environment?

Professor Fathy explains the reasons for the villagers' reluctance to move in his book, Gourna - a tale of two villages.

"First the patriarchal system is very strong and everybody

... the heads of families who in Gourna were tomb robbers

their power to preserve their trade. They had no intention of giving up their nice, profitable, squalid houses in the cemetery with treasure waiting to be mined under their floors, to move to a new, hygeinic beautiful village away from the tombs. Second, the Gournis are all closely inter-related and no-one would fail to support a family chief in any enterprise".<sup>1</sup>

All this opposition led to the village being flooded twice by breaking the dike and letting the Nile waters in.

This had a great effect on the land Gourna was being built on, which had been dry for thirty years, so that the earth was hard and compact. After the flooding, enormous cracks (at times three metres deep and fifty cm. wide) appeared on the land.

"Since the subsoil water rises every year to within 2 metres of the surface and the foundations of the houses in Gourna were of the customary strip type, made of rubble masonry and earth mortar, laid in trenches 1m 50cm deep, each house would be sitting on a thin crust of soil floating on liquid mud. The cracks would allow the soil to slide laterally and the houses themselves would certainly crack."<sup>2</sup>

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<sup>1</sup> Gourna - a Tale of Two villages" - H. Fathy, pub. Ministry of Culture Cairo, 1969 (limited copies) pps 225.

<sup>2</sup> Ibid. p.228

This is fact did happen, to most of the buildings in Gourna.

Apart from the difficulties with the Gournis, Prof. Fathy encountered increasing obstruction from the Antiquities Dept. It seems as if all interest in the project had died and as much as possible was done to stop the continuation of Gourna. After repeated attempts by Hassan Fathy to obtain support from various other departments for the continuation of the project work eventually ground to a halt.

Only a quarter of the village had been built. A large number of the completed buildings were public buildings; mosque, Khan, crafts school, market place, boys and girls primary school, theatre - these now stand deserted and unused and decayed, a total waste of the materials and the money gone into building them! As for the rest of the village, the few houses that had been built were taken over largely by families for whom they were not originally intended for and have been changed and adapted over the years to suit the needs of these families. (see maps: Gourna 1945 x 1973)

Prof. Fathy had conceived of building up new crafts and self-sufficiency within the village. For a time, while he was there to supervise the proceedings, his ideas were carried out. New crafts were established and public buildings were used. But on his departure no-one continued this work and the crafts died out.

Now after so much time, no more houses have been put up, the village has not grown and Old Gourna still exists.

not work well climatically or environmentally - most open spaces were very hot and dusty and consequently very empty (this fact can also partly be attributed to only a quarter of the village being built). Another very important point that we noticed was the great number of animals tethered outside in the streets and living inside the houses, at times occupying what Hassan Fathy had designed as the guest room and even at times occupying the whole of the upper floor. This led to a great many environmental offshoots, e.g. an insupportable number of flies and many great mounds of straw and accumulated shit all over the place.

For some reason it seemed that some families had not used the special mangers or stables Hassan Fathy had provided in the design of each house, or else needed to extend these into other parts of the house. Consequently many of the windows on the ground floor had been blocked up - as these corresponded to the rooms where animals were kept. There were also other reasons for blocking up openings; view, privacy, sun and wind. (When the houses were built it was assumed that the villagers would fill in the windows themselves using wooden shutters. However, most of them are too poor to afford the very scarce wood and it is more convenient for them to just block up the windows and doors permanently.

It was actually a fantastic experience coming out of the blinding midday heat and entering a totally blocked up dark, cool room.

The specially designed pump house was not used and was decaying slowly and filling up with straw. We asked why.....'its broken..' and presumably no-one could fix it. As it was, the two

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community water supplies were a tap and a pump situated out in the open in the heat and were switched on by the authorities only at certain times of the day. Other pumps, 3 or 4 of them, belonged to individual families who allowed other families to use them if they needed to.

The carefully designed washing arrangements inside the houses were not used by any of the families we visited, or, it seems, by any of the families in the village, and were also filling up with pots and pans and straw. The easiest and simplest method of carrying and storing water is still in the large water jars carried by the women on their heads. It seems that if one is to introduce a new, more hygeinic system into the traditional lifestyles of people, it is of fundamental importance to educate them into realising the advantages to be gained and to accept it. If this is not done then it seems obvious that these people will return to their much used, more secure and reliable methods.

New Gourna has changed over the years. This change, which started out of such strange circumstances, has been an alteration, addition and adaption to various elements of the village and the home. We ask ourselves what would have happened and what would Gourna look like now if the whole village had been built and all the people had moved in and everything had been started and continued according to Hassan Fathy's concepts, instead of ideas being cut off before they could really be put to the test. There are a great many lessons to be learnt from Gourna, especially from the people living there. For in actual fact, it is

they who make the village what it is and they who are continuing to mould it according to THEIR needs. Gournā is still very young in comparison to neighbouring villages and still has a long way to go before it can satisfy all the needs of its inhabitants as these traditional villages so naturally do.

## BAERAT - A VILLAGE NEAR GOURNA

We spent some time while at Gourna, visiting adjacent villages and comparing houses, lifestyles, planning and climatic solutions with those of Gourna.

The villages we visited were small hamlets making up the large village of Baerat, which stretches over about 5000 feddans\* (including cultivated land). There are II such parts to Baerat, each housing about 1000 people and each with its own mosque. These parts are further broken down into BEDANAS or neighbourhood groups comprising 5-10 families. (This subdivision played a major part in the planning of Gourna). The bedanas are fairly well defined and the families have grouped themselves over a period of time - organic growth from one house to another .

There are two primary schools in the whole of Baerat, secondary schools and trade schools are in Luxor, across the river.

Baerat has a chief who keeps law and order and punishes people in his own way when they do wrong. He chooses a man from each part of the village who acts as a deputy and keeps him informed of events in his particular area.

As in Gourna, the population is of fairly mixed occupation.

The houses in the village are built very close together with spaces between as narrow as 1 or 2 metres and much closer than in New Gourna where the min. space is 6 metres wide. The narrow and winding streets are very pleasant and interesting to walk in

as the houses and walls completely shade them from the sun, even at midday, which was the only time we had available to go visiting. Suddenly a street would widen out into a small communal courtyard or pump area, surrounded by houses, where the women gather to get water. Then one would pass through a small gap in the wall and into another short winding street. Open, close, open, close.....

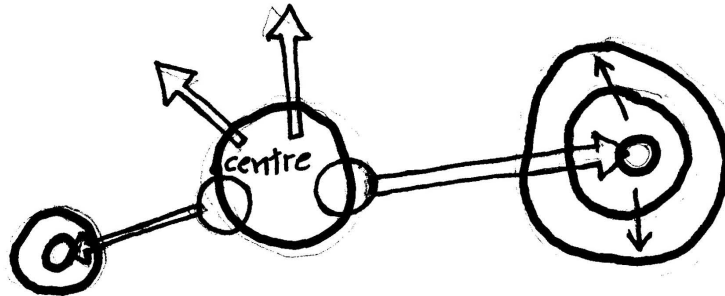
The streets of the whole area seem very clean, unlike New Gourna. There are no animals or straw, mainly because the animals are kept in private courtyards within the house complex and also because the streets are far too narrow to contain animals as well as people and the occasional donkey cart or bicycle. This makes for the fact that there can be no extensions out into the street as well. Each bit of street is kept clean by the occupants of that house which fronts on to the street, and, as the streets are narrow the whole length is kept clean, whereas in Gourna, the people tend to clean only a small patch in front of their entrance and do not bother about the rest of the street.

In Baerat, as the streets are so cool, there is a fair amount of activity going on all the time and people often sit in doorways talking, washing, cooking, grinding corn etc.

In Gourna there seems to be very little shelter from the sun and the heat - there are very few trees and no palm trees at all. Some trees were planted and have grown very well, but the large open spaces are totally devoid of vegetation. In a few interesting cases however, it seems that some people were actually trying to grow plants and small palm trees outside

their homes. In the adjacent villages there is an abundance of palm trees growing in courtyards, houses, streets, and public spaces, so that there is always greenery and shade.

If the village is too big or too crowded and claustrophobic, or because of family quarrels or petty jealousies or marriage, the villager looks for somewhere else to build his house and moves to or starts a 'suburb' or small hamlet nearby.



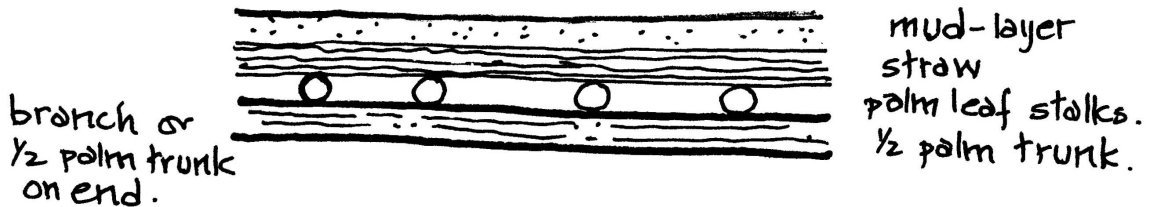
If the land belongs to him the man can build what he wants where he wants and need not ask for permission from the chief.

If he does not own the land he must buy land or ask the owner for permission to build on his land.

THERE IS NO PLANNING BY THE VILLAGERS other than that dictated by family clusters or bedanas or the distance from the mosque. (Each hamlet has its own mosque, with the main mosque for Baerat in the centre.)\*

THE HOUSE: After having decided on his requirements, the villager will get a mason from the area to build his house for him. This is usually out of mud-brick, (sometimes out of fired brick if he can afford it) flat roofed, with small high windows, dark cool rooms and separate courtyards for livestock and cooking and washing, wholly or partly roofed over with straw.

Any wood used in the construction usually belongs to the owner and comes from trees on his land. In many cases the roofs in Baerat are made of branches, of stripped palm stalks and of straw, sometimes covered with a layer of mud, e.g.



Sometimes the treads of stairs are wood re-inforced. Doors are made out of thick, roughly hewn pieces of wood.

The whole appearance of the house inside is fairly spacious and very much cleaner and more organised than in Gournna. Animals are absent from the living areas and guest room - they have their own area.

The ovens used for baking bread and the whole technique of baking bread is the same as in Gournna.

The difference to Gournna is that in these villages each part of the house has a specific function which has been worked out by the owner himself and not someone else, although one must remember that Hassan Fathy had designed the houses originally for specific families.

There is much more coherence in the jigsaw of roofs and courtyards and terraces and streets which make up a small hamlet than in Gournna.

A very strange and wonderful phenomenon exists of passing from a street through a courtyard, archway, house, courtyard to a street again. There seems to be no transition between public and private spaces, which seem to drift from one to the other.

All houses are not more than one storey (in most cases the roofs are used as well) and overlook each other on many levels, with communication across roofs, from one level to the other.\*

Three houses were studied in detail:

1. The house of Ahmed Hussein
2. The house of the Magistrate
3. The house built by Haggag, the mason

## OLD GOURNA - NEW GOURNA

What would the Gournis have left behind had they all moved out of Old Gourna to live in the new village?

Mainly they would have lost their livelihood, which was largely tomb robbing and the manufacture of forgeries. Also, they would have lost their homes and village clusters with which they had become so familiar and would have had to adapt to new surroundings and a new building type defined by the vault and dome roof. The common roof structure used in the area is the flat type, using straw, mud and timber. It is not as durable and does not perform climatically as well as the vault and dome roofs but it is probably less costly, complicated and time consuming and therefore a better alternative under the present realities. The vault and dome technique becomes a viable alternative however in comparison to the much costlier 'modern' roofing techniques often suggested for rural areas. If it were not for these factors they would probably be more ready to move to the site of New Gourna. Old Gourna stretches over several kilometres in a long band of scattered clusters of houses built out of the tombs of the Nobles on the hillsides of the Cemetery of Thebes. This is a very hard and rugged stretch of land as has been mentioned before - dry and hot, the sun beats down all day long and radiates off the rocks of the cliff face. The soil accepts virtually no vegetation.

In comparison, New Gourna is much closer to Luxor and is situated in the midst of cultivated land in the valley. It is much cooler and on the whole a more agreeable place.

Most people who had originally lived in Old Gourna and had moved to the new village gave as their reasons for leaving that it was too hot up on the hill and more more pleasant down in the valley. Undoubtedly a more fundamental reason would be their change in occupation from tomb-robbing in Old Gourna to working in Luxor either in kiosks selling to tourists or as guides for the Luxor temples etc. Thus close proximity to Luxor was an advantage offered by New Gourna.

As it is, nothing much has changed and Old Gourna continues as it did 28 years ago.

It would be interesting to see what would happen if the authorities opened up the remainder of the land constituting the total site of New Gourna, for people to build their houses on.

How would they build and how would they relate to the buildings already there?

We did not see any attempts at building vaults and domes other than at New Gourna.

An attempt has been made to graft something totally new into an old structure something a great deal more thought out and a vast improvement on the usual government grid-iron schemes of re-settlement. It seems that Gourna still hasn't quite made it - but its on the way there.

## CONCLUSIONS

The first essential difference between the neighbouring villages of Old Gournna and Baerat and New Gournna was that whereas the first two were expressions of the life-styles of their inhabitants, New Gournna had been designed as an expression of the architect's concept of what the life-styles of its inhabitants would be.

The second essential difference was that the 2 neighbouring villages had an economic basis from which they developed. New Gournna was designed and built with the concept of what its economic base would be but without that base ever becoming reality. The built environment went ahead to completion (or a quarter of it did) but the economic and organisational basis remained conceptual. It was a 'cart before the horse' situation.

From this stemmed most of the short-comings we observed in New Gournna.

Most obvious were the unused and decaying public buildings - the craft schools, bazaar, and the theatre, robbed of life when their economic and <sup>organisational</sup> ~~one-dimensional~~ basis was never realised.

The houses were designed in a way that did not automatically flow from the existing living patterns. To be used as anticipated they presupposed a higher income level amongst the inhabitants with both the time and need for the several provisions made as well as a period of diligent education and training in their use. For example in the logic of the stables, the kitchen and the washing areas.

Even so, the realism of at least some of the facilities could be questioned. For example the requirement to carry water continually up to storage jars on the roof so that the family could have 'piped, running water'. The task was far too laborious as we experienced for it to be consistently used.

Realising the primary necessity of an economic base for any viable community to develop Fathy worked one out in surprising detail for the intended inhabitants of New Gourna. But then he went ahead and built the buildings as if their physical presence alone would give rise to all the activities they were to house.

For New Gourna to have developed as planned, much more was required far beyond the capabilities of one man or one discipline. This would especially be the case if the village was to be a prototype of a national rural development effort and not just a one-off success. Even as a pilot project it needed to develop in an integrated way.

In nature, the economic base once established and developing gives rise to the physical environment. In New Gourna efforts should have been made to get the crafts industries functioning first no matter in how modest a way and how modest the physical structure within which it was functioning. And then as activity stimulated need, the physical structures <sup>might have responded</sup> (could have responded).

Some planned anticipation of how the activities, and the physical structures, could develop would of course be necessary. Their execution should however have remained in step and

developed gradually, ready to respond and change wherever necessary.

Implied in this is the importance of the integration between the ideas and the people for whom they are developed. The strong opposition of the Gournis to the project made it impossible. But if they had been receptive it would have been necessary that the execution of the ideas one had for their development be kept reasonably in pace with their acceptance of these ideas. Taken a step further it would mean involving them in the process of their own development soon and to such an extent that the 'professional' became the server of their own expressed needs rather than both formulator and server of those needs.

But an architect cannot be all things at once, least of all single-handedly, and in the face of opposition both from those who are to inhabit his design and those who pay him to design it; from the start the Gournis opposed being moved and later the government opposed the continuation of the project. Under such circumstances New Gourna stands as a remarkable achievement.

As a life-size laboratory for the testing of indigenous design and construction techniques, it is a gold-mine of information. Studied along with the architect's book on the village it describes in detail how an architect can begin on the basis of the peasant he is designing for and improve on his artifacts of living in a sensitive manner. It also stands as testimony to the organic, aesthetic and economic appropriateness of mud-brick, vault and dome construction to

village design.

The architect had already exceeded (and rightly so) the normal brief by describing how an economic basis could be achieved for the village. It was not humanly possible for him to put it into operation as well. Today the experience of Gournā still stands as a basis for concerted action in rural development but one that requires co-operation and planning both on the national and inta-disciplinary levels.



LUXOR SKYLINE - from across the Nile.



TYPICAL HOUSE - by the road between  
Luxor & Gournah.



On the Luxor-Gournah road - OLD GOURNA  
in the background.



OLD GOURNA.



