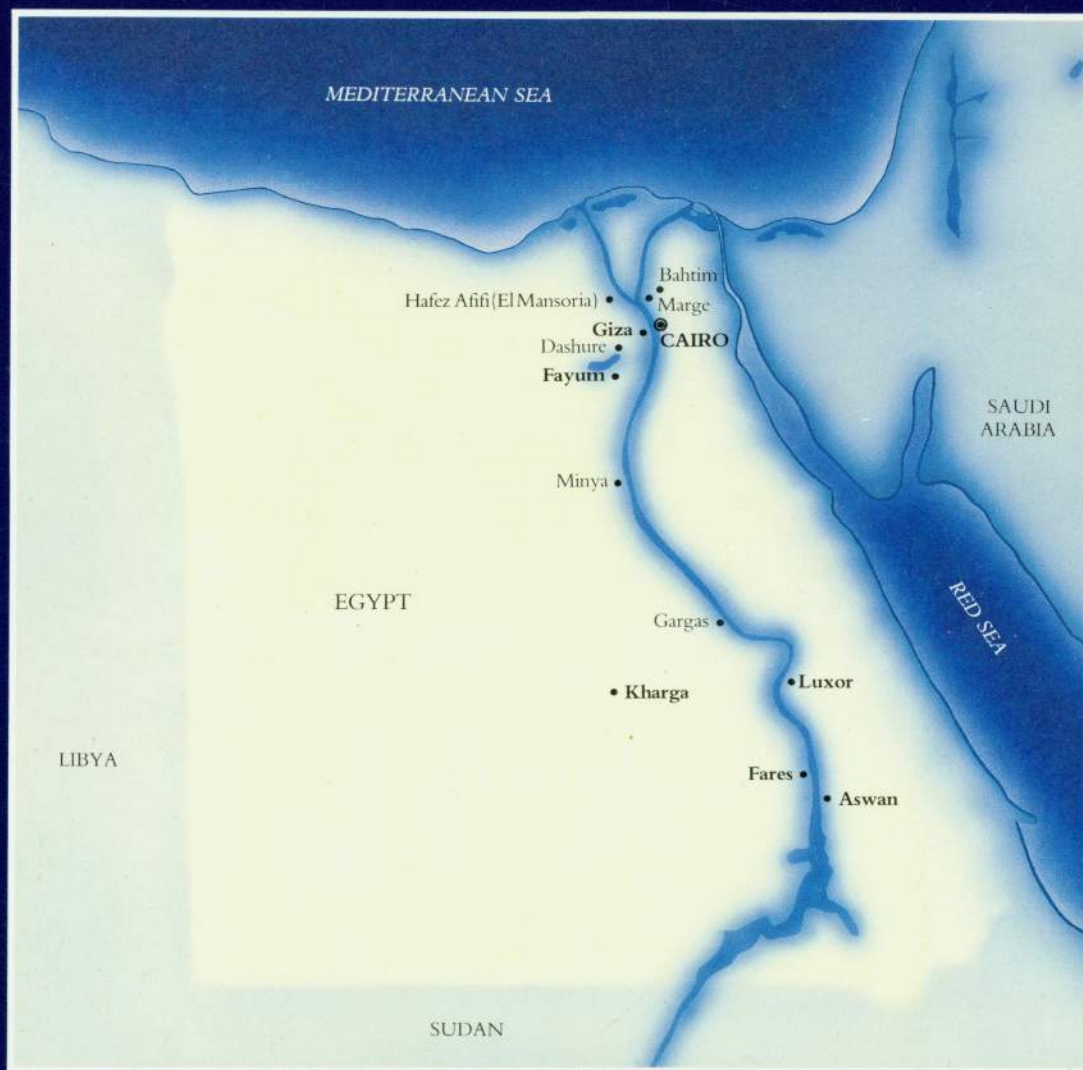
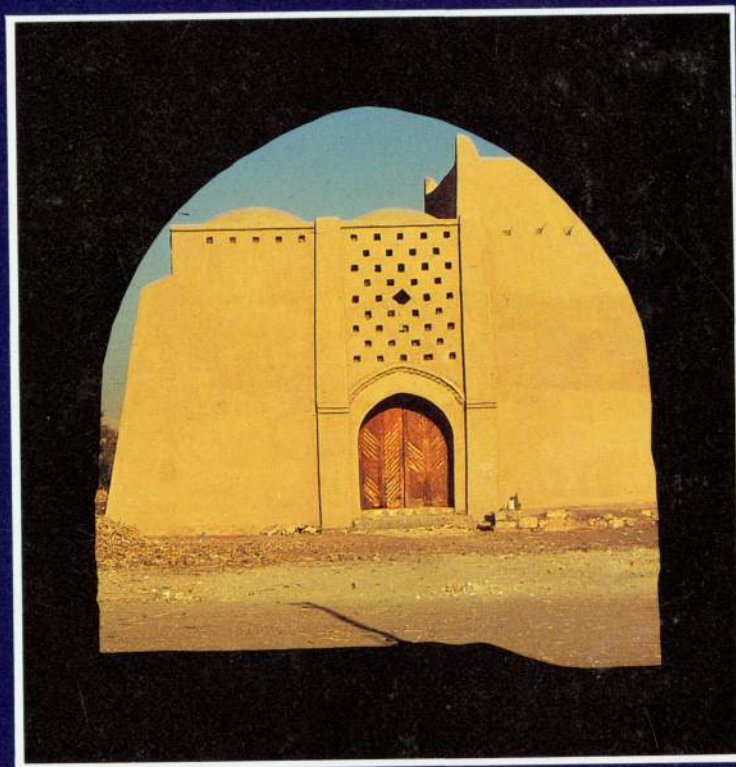


HASSAN
FATHY



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*J. M. Richards
Ismail Serageldin
Darl Rastorfer*



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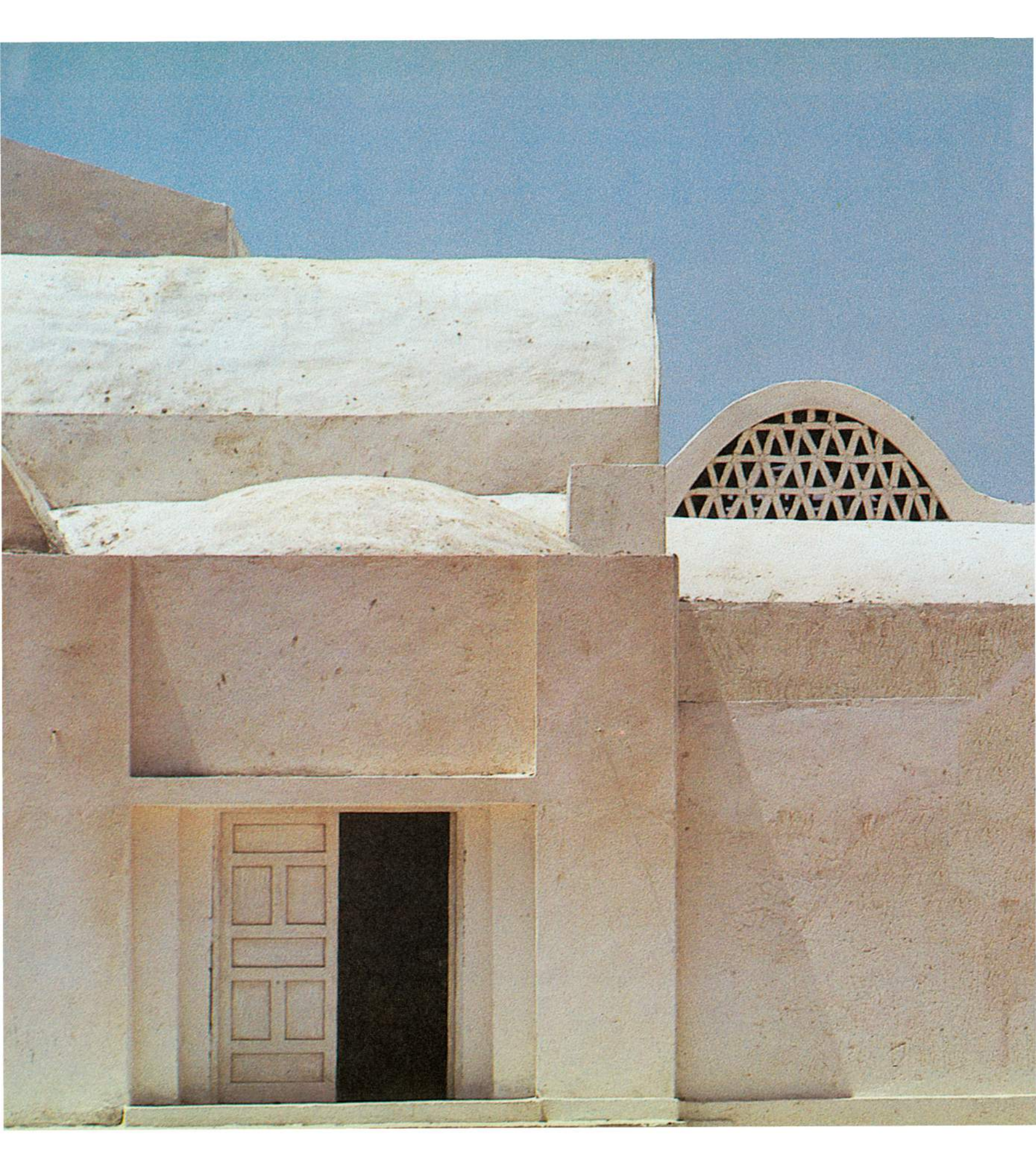
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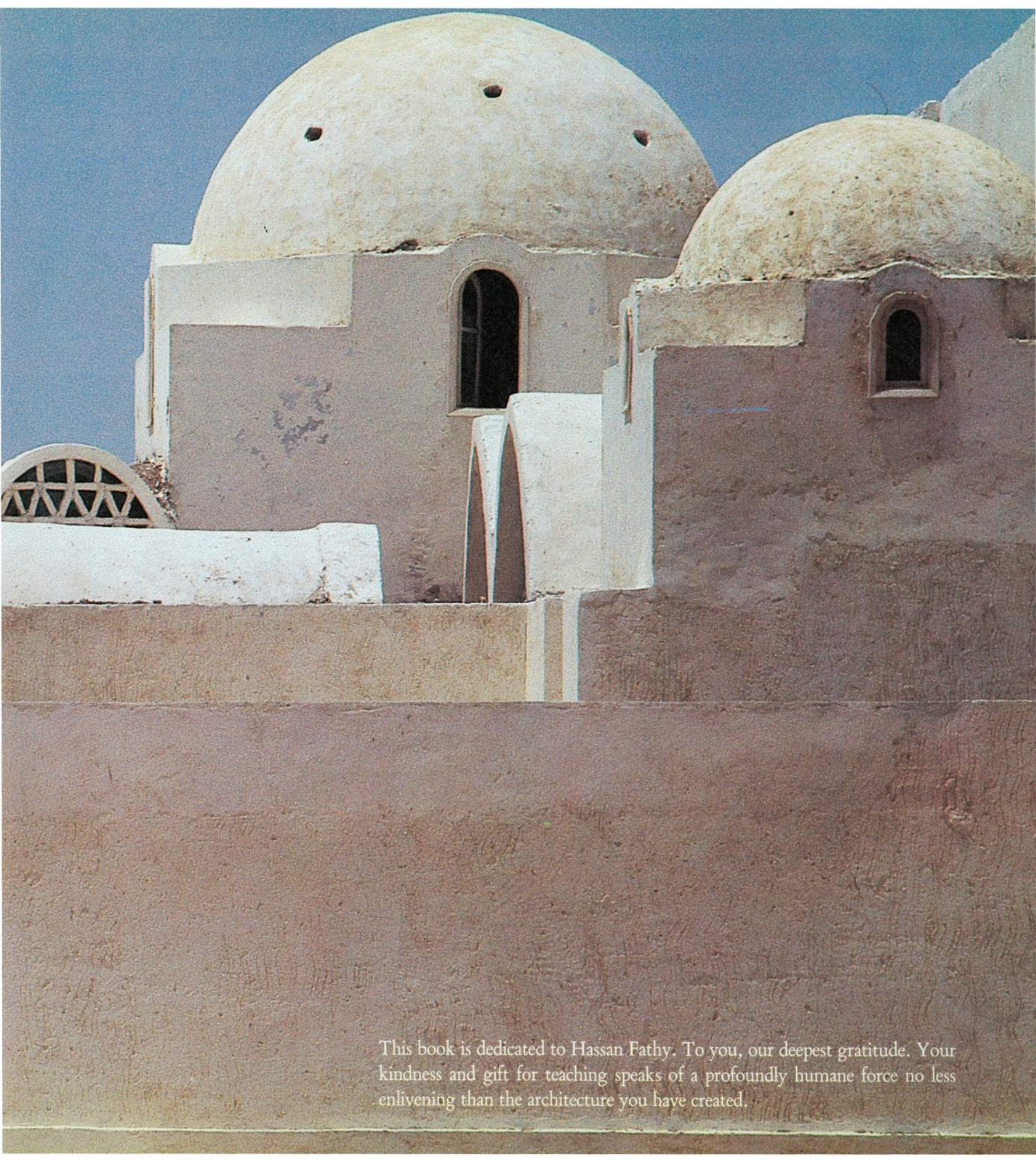
Back Cover: Hassan Fathy, photographed by
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the location of Fathy's major works.

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This book is dedicated to Hassan Fathy. To you, our deepest gratitude. Your kindness and gift for teaching speaks of a profoundly humane force no less enlivening than the architecture you have created.

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Darl Rastorfer, the author of the major part of this work, spent over a year researching and recording Hassan Fathy's projects and writings both in Egypt and abroad and visited many of the buildings with the photographer Chant Avedissian. This monograph owes much to Rastorfer's selection of images and drawings and his organisation of the material. The essays by J. M. Richards and Ismail Serageldin relate Fathy's work to wider international and national contexts. The four appreciations are by individuals – prominent in their own right – who have worked closely with Fathy and owe much to their relationship with him. In order to give the reader, who might not have met Fathy in person, a greater flavour of the man we have extracted his own words from the book *Architecture and Community* (edited by Holod and Rastorfer).

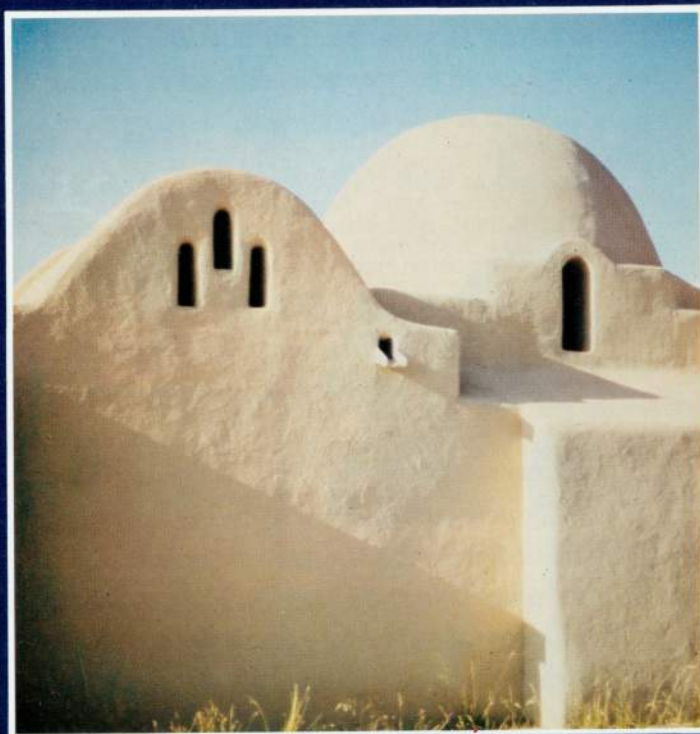
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the overall organisation of the work.

We also thank the owners and users of buildings illustrated on the following pages. Doors were graciously opened, and the experiences of building and living in the houses and villages designed by Hassan Fathy were willingly recounted. Akeel Samy and Mahoud Famy offered especially valuable insights on the construction of their respective villas, the Samy House and Mit Rehan. Site visits to restricted areas were made possible thanks to the Egyptian Department of Antiquities and the Ministry of Housing and Reconstruction, which prepared permits and arranged all necessary ground transportation. And our special thanks to Hassan Bey himself, who not only cooperated to realise this work, but has given to the world a sensitive architectural language and an approach which has inspired more than one generation of architects.

Hasan-Uddin Khan
Series Editor, Mimar Books

IN THE INTERNATIONAL CONTEXT



by J. M. Richards

NEWS OF HASSAN FATHY'S enterprises and beliefs in Egypt first reached the Western World, perhaps not coincidentally, just as concern was becoming widespread about the growing gap between what technology claimed to do for human welfare and what it was actually achieving in buildings that answered the needs of ordinary people. The architectural profession had welcomed the leap forward in the early part of the twentieth century, which had made many new techniques and materials available to it, in the genuine belief that these new techniques would enable it to serve social needs more precisely. At the same time the profession enjoyed having the new techniques at its disposal as a source of new images and inspiration.

But much of the early optimism has lately turned to disillusion, both disillusion with the visible results of what has come to be called the Modern Movement, and with the environment associated with it. Consequently it is easily forgotten that a principal impetus behind that movement was the need for socially oriented planning, and the need – and here Hassan Fathy's ideals and those of the Modern Movement coincide to a degree that he might find difficult to accept – for architects to concern themselves with the ordinary man's living standards. This was something on to which the profession had earlier turned its back since the provision of housing for the growing urbanised masses had fallen in the previous century into the hands of builders concerned only with houses as a commercial product or into the hands of local government concerned only with the provision of housing as an aspect of civic administration. The founders of the Modern Movement were indeed ambitious to change the direction of architecture by exploiting the new technology, but one of their principal aims was, while doing so, to improve the quality of city life, which they endeavoured to bring back within the purview of both the architectural profession as well as that of the allied town-planning profession. Hassan Fathy, much as he has always distrusted the Modern Movement, has nevertheless been part of it in the sense that he too aimed at reorienting architecture in the direction of improving human living conditions, especially those of the poor.

The difficulty of appreciating their similarity of aims is obviously made greater by the fact that the founders of the Modern Movement concentrated their studies and endeavours on urban conditions, whereas Fathy has generally occupied himself with the needs of the rural poor. The Modernists moreover felt that they had to achieve their objective by thinking out the means of doing so afresh and discarding nearly all they saw around them. Their philosophy required a total break with the past, whereas Fathy has looked always for continuity. But the

Modernists' break with the past proved disastrous to the relationship between architecture and the public. Already by the 1960s, when Hassan Fathy was becoming an international figure, the man in the street had come to regard modern architecture merely as unfamiliar-looking buildings which imposed themselves aggressively on the accustomed scene. Changes in style more abrupt than the evolutionary changes associated with most of architectural history were no doubt necessary in order to make the most of what science could contribute and to break the strangle-hold that the self-indulgent imitation of historic styles, ignoring the enlargement of scale and the inappropriateness of much of their imagery, had imposed on twentieth-century architecture, barring nearly all progress, functional as well as cultural. However, the utter unfamiliarity of the new style of building wounded people's instinctive desire to feel at home in their surroundings, and their resistance to the iconoclastic aspects of the new architecture was reinforced by the architectural and the town-planning professions' enthusiasm for a literal clean sweep. The Utopian vision to create an improved environment led to an urge, which we now see as far too arrogant, to destroy the past in order to create a better-ordered future, thus destroying also the familiar background which makes people feel at home in town and country. The value of continuity was forgotten. It was left to a later generation to rediscover the social and cultural necessities of weaving the new into the old.

There was thus, by the 1950s and 1960s, a sense that too many human values were being submerged in the eagerness to exploit new ideas and techniques. These values were being further submerged by many of the most promising opportunities of rebuilding being exploited by property and financial interests, so that modern scientific developments appeared, at least in the architectural field, to be in the hands of those least concerned with human welfare. The public, and especially the urban public, felt itself the victim of forces which were not on its side, speaking a language foreign to its own. The new architecture was increasingly associated with the destruction of all that was comfortable and familiar.

One of the first signs of the architectural profession's awareness that it had got out of touch with the needs and responses of ordinary people was, as I recall it, a widespread interest, from around 1950 onwards, in vernacular traditions and the possibility of creating a contemporary vernacular – a commonly accepted architectural language. Such a possibility had been implicit since the early days of the Modern Movement, but had been imagined only in terms of whatever vernacular vocabulary might one day emerge from the use of the standardized

constructional elements upon which an industry-dominated building process would naturally rely. But at that time – I am looking back to the early 1930s – even the architects, who were prepared to recognize the role of building as a social service, could not easily separate in their minds the re-use of traditional techniques from the revival of traditional styles, which they had been persuaded ought to be discarded as standing in the way of progress. Hassan Fathy's personal philosophy had made the significance of vernacular architecture clear to him from the beginning.

In the magazine *The Architectural Review*, of which I was then the editor, this became the subject of repeated exploration and study. My colleagues and I sought out and illustrated examples of a vernacular architectural language from many parts of the world, writing enviously of the easy acceptance of a common vocabulary in the days before popular judgement of architecture was as confused as it had been from the mid-nineteenth century onwards. The obvious problem, endlessly discussed in the 1950s, was how to achieve an architectural language to which everyone could respond, without denying architecture the advantages offered by new materials and techniques – but no longer feeling the need to rely wholly on them.

In many places which I had occasion to visit I found this problem being earnestly considered, and I recall talking about it to Hassan Bey (1), (whom I had first come to know while living in Cairo during the war) when I visited Egypt again in the 1960s. His clear conception of architectural values made our talk enlightening. However, even though I saw his uncompleted village at New Gurna in Upper Egypt, just across the Nile from Luxor, in 1967, it was not until I had read in some detail of his efforts to recreate a popular vernacular on the twin bases of the traditional Egyptian mud-brick village architecture and the age-old Nubian arch-building technique and – more important – until I appreciated his success in applying it at Gurna to present-day needs and thereby creating a *living* vocabulary, that I experienced the excitement of realising how relevant his ideas were to the problems with which my magazine and many others had been concerning itself for so long.

The opportunity to read Hassan Fathy's own full account of his beliefs and achievements and of his struggles to build his village at Gurna came when, in 1969, he sent me a copy of his book about them: *Gourna, a Tale of Two Villages*. It had been published in that year, in a limited edition (2) by the Egyptian Ministry of Culture in Cairo. Seeing it as a highly significant link between what the

(1) "Bey" is a Middle Eastern title of respect or rank.

(2) A shortened French version, entitled *Construire avec le Peuple*, was published in Paris in 1970.

modern architects had instinctively been looking for and what it had been found possible actually to build, I published a summary of the story in *The Architectural Review*. To me and to others Fathy's account of Gourna and of the research and resulting convictions that led up to it were not only themselves an architectural revelation, but they made the essential connection between vernacular precepts and modern principles in the sense that they showed how social needs, however scientifically studied, can be fulfilled with the help of a wholly traditional vocabulary.

The fact that Fathy's achievements, thus revealed to the world only in 1969, date from as far back as the 1940s, underlines how far this thinking was in advance of his time. In addition, a related problem that he had firmly grasped was one that hardly began to concern the architectural profession in the West until at least twenty years later. This was the problem of public participation, the need to establish some method of design, and especially the design of housing, which would enable the future user to become involved, if not in the technical design process, then in the decision-making process that led up to it. This problem began to exercise the minds of the younger architects, above all in Britain, no earlier than the 1960s – although it had of course been implicit in the Modern Movement's insistence on the significance of research. Its importance had been present from the first in Fathy's approach to his task of building for the villagers of Upper Egypt.

Having said all this one must add that it would be a mistake to give Hassan Fathy too central a place in the evolution of architecture today. He would, I am sure, acknowledge the limitations of the vocabulary he has evolved and of the building techniques he has so successfully exploited in the small number of village projects and private houses that together constitute the whole of his built work. The starting point for his architectural achievements was the needs of rural Egypt. Although there are many other countries – in Africa, Asia and Latin America – where his methods could be profitably applied, today's building problems are increasingly urban, and this is becoming true even in the Third World. Fathy places much emphasis on the indigenous nature – or at least the indigenous origin – of all good architecture, but where are the indigenous roots of urban architecture? How can it be rooted in the local culture when so few urban values are local?

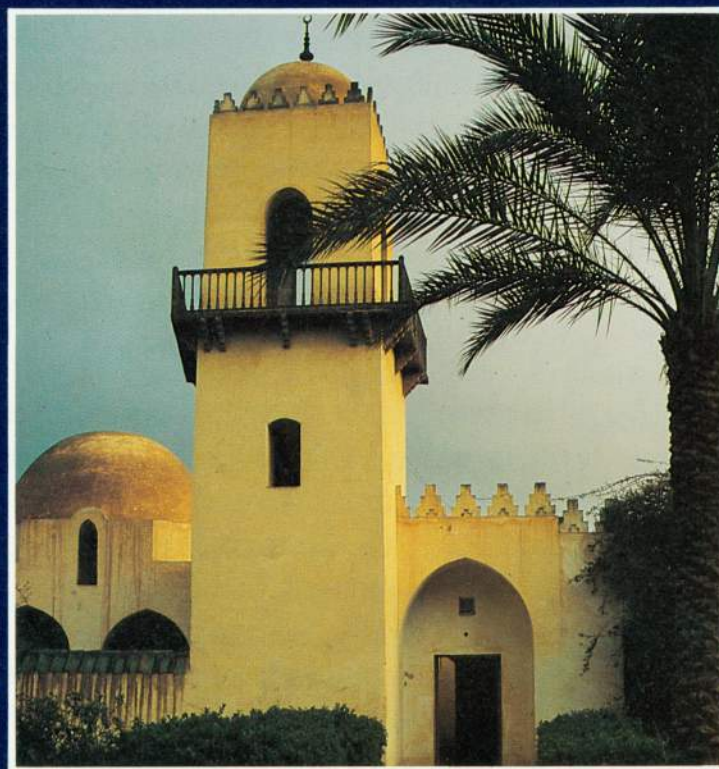
Hassan Fathy is essentially a philosopher and a teacher, and what he has to say about contemporary architecture, what he has been saying for years to the young

architects who have sat at his feet – for to many such he has been a kind of *guru* – or to those who have listened to his discourses on the roof-top terrace of his house is of an importance that goes far beyond the Egyptian villages only just over the horizon. It includes the message that in solving human problems one must not remove oneself too far from the human individual, and that even, perhaps especially, in our age of infinite technical resources, the simplicities inherent in the very nature of building must not be overlaid by the worship of progress.

We should not therefore regard Fathy's built work simply as an illustration in the round of a certain very limited range of ideas that he has investigated. Apart from its exemplary reconstitution of a still-valid vernacular, there are principles inherent in his style of village architecture that we can follow without having to build like him. Look behind his mud-brick domes and courtyards and you can find more architectural subtleties than you would ever expect village housing to exemplify. The vernacular idiom he evolved to suit the particular problems he was faced with at Gourni – an idiom he developed further in the 1960s in his New Bariz village in the Kharga oasis – is far from being a formula. There are, for example, in the spaces between the buildings, proportional variations infinite in number, invisible maybe to the observer but giving satisfactions to the user of which he may not even be conscious. Fathy's use of mud-brick moreover is not an archaic fad, a choice of primitive methods for a primitive way of life. It can be admired in terms of the strict scientific use of available materials, of the relation of building costs to habitable space, and of optimum thermal efficiency.

All these are the very stuff of architecture. Such basic considerations are the source of the only productive relationship between designer and user. Not for Hassan Fathy a "post-modern" vocabulary manufactured out of bits and pieces and masquerading as meaningful language. Slight though his built work is, many of the ideas he has put forward as a teacher are clearly reflected in it. Although it is not on the scale to have made a major contribution to the corpus of significant modern building, it has forcibly and convincingly demonstrated how profoundly certain fundamental principles matter, and in particular that there are other and better ways of solving the urgent housing problems of the Third World – that these problems are by no means confined to Egypt or even to Africa – than by importing unnecessarily extravagant and climatically inappropriate Western technology.

AN EGYPTIAN APPRAISAL



By Ismail Serageldin

IN HIS ESSAY, Sir James Richards addresses the importance of Hassan Fathy in the world. My essay is therefore written from the much narrower and more personal perspective of what Hassan Fathy means to Egyptian architects. To most Near Eastern architects, Hassan Fathy is the dominant figure in the architecture of Egypt in the 20th century. He is a controversial figure and one whose impact is widely acknowledged but not quite understood, although he has been a continuous presence on the scene for almost 60 years. Nevertheless, during those six productive decades he has always been peripheral to the mainstream of building activity in Egypt, of architectural education in Egypt, and of decision-making on urban matters in Egypt. But peripheral to the mainstream does not mean easily discountable. His persistent presence has sometimes infuriated, sometimes disconcerted, always challenged those who were most influential in building matters in Egypt. His intransigence baffled some, who saw him as a lonely guru, reminiscent of Old Testament prophets, promising that the world will reap misery for not listening to the truth of his message.

His strength is the strength of ideas more than buildings. In his long and illustrious career, he has built only about 30 projects. Furthermore, with the exception of Gourni, his most well-known and widely respected work, few of Hassan Fathy's buildings are known to the wide public. Yet his name and ideas are widely acknowledged.

The Ideas

Appraising the intellectual contributions of Hassan Fathy is not an easy task. Perhaps his most significant legacy will be the humanism that he championed and the boost he gave to the self-image of architecture in the Third World generally, the Muslim World specifically, and in Egypt in particular. He has elucidated his positions over the years with a remarkable clarity, courage and consistency.

Fathy was not enamoured by modern forms. He recognized that architecture is for human beings. This was not just an affirmation of a simple truth, it represented an *alternative paradigm* to the prevalent "modern" understanding of architecture and its role in society.

The paradigm can be sketched out by spelling out the various themes that comprised its various elements. Fathy articulated *cultural authenticity* as a main theme of his message. He rejected architecture that is not indigenous, rooted in the location and the culture of the area, which in his mind found its truest

expression in the vernacular architecture of a society. He opposed his indigenous architecture with its vernacular heritage to an imported internationalism, rooted in a common technology rather than a common humanism.

In so doing Hassan Fathy reaffirmed a second element of his major paradigm. The recognition that *architecture is for humans*, and that human beings are not interchangeable, requires that architecture must be responsive to their psychological and cultural needs as well as their physical and physiological needs. Fathy therefore rejected the elements of internationalism that were to try to unify the world in a common pattern of living derived from a common technology. His rejection of internationalist modernism thus went beyond a rejection of Westernization of a cultural heritage that he considered an important part of his identity. His rejection was of internationalism itself as an homogenizing concept that stripped human beings of their individuality.

In defending cultural authenticity, Hassan Fathy emphasized that there is an essential non-interchangeability of cultures. By that he meant that basic cultural elements developed in response to indigenous needs, environmental and psychological, and that alien elements cannot be implanted or transplanted from other cultures or other environments if they are culturally inappropriate. Culturally inappropriate elements that are so inserted into the fabric of the harmonious built environment will undoubtedly generate contradictions, and will, with time, corrode and degrade the traditional culture. He was careful, however, to note that a living culture must always remain open to the world and borrow as well as invent new things. There is nothing wrong, he would say, for us to take from the West that which is suitable. It was the difficulty of defining what is suitable that led him to encourage architects to use as determinants of suitability the objective measurements of science such as thermal efficiency, cost, energy efficiency and other measures of the suitability of materials or the appropriateness of the relationship of spaces and volumes. He was open to the use of appropriate technology, even if it was not indigenous technology in the narrow sense of the term. He thus did not hesitate to transplant the dome building techniques of Southern Egypt to the villages of Northern Egypt. He, himself, launched an experiment around 1970 in which he tested seven chambers built in different techniques to identify their suitability to Egyptian climatic conditions. But in his own studios, and in his own work, he dealt with the much more subtle aesthetic aspects of the suitability of form to indigenous expression. In this domain of nuances, his yardstick was his own aesthetic sensibility much

more so than arid historic scholarship.

Another element of the paradigm that Fathy erected step-by-step, was the *participatory nature of the design process*. He encouraged self-help and promoted user participation in design. In some instances he allowed the peasants to express their wishes for the lay-outs of their homes, in other instances he let the peasants use a courtyard for a number of days and then established the lay-out of the courtyard on the basis of their use, defining the pathways where the earth had been beaten by their steps. All these efforts are examples of Fathy's persistent attempts to introduce further individualization in the design process.

On the humanistic level, Hassan Fathy stood against the bureaucratic approach to mass housing, the repetition of prototypes in ever-shifting combinations. He could not accept the "assembly line" approach to architecture. He advocated *individualized attention to each building (housing unit)*. He was fond of offering an analogy that the greatest brain surgeon in the world, if given two hundred operations to do in one day, would surely kill all his patients. He admonished architects never to take commissions of more than 15 to 20 units at a time, to deal with users as individual clients and persons and not as "prototypes" or "generic average families". Architects, he asserted, had to remain true to the human dimension of their vocation if their work was not to lose all meaning.

Hassan Fathy's ultimate contribution and possibly his most important, was to shift the attention of architects, however briefly, away from the mainstream commissions of major buildings towards *the problems of the poor*. He was concerned with the masses of humanity that are living in poverty, and identified directly with the problem of shelter for the poor. He became one of the prime advocates, and most powerful voices, of the social consciousness of architecture in the 'seventies and early 'eighties that merged with so many currents that have exploded throughout the universities of the world in the 'sixties.

The upheaval that the 'sixties wrought throughout Western universities was matched by an age of equally important upheaval in Egypt; intellectually, Egypt passed a milestone. At that time national priorities shifted from the pursuit of sovereignty and national independence to the pursuit of social development. In parallel to that change the old "icons" of the established orders were being questioned. Fathy started his third major community building effort, New Baris, at that time, but the war of 1967 stopped that project as national priorities shifted back to foreign policy considerations. But internationally, this socially-

oriented climate was particularly receptive to Fathy's ideas of humanism, national authenticity and concern with the poor. By the late 'sixties Fathy was finding a responsive echo in some Western universities. In Egyptian universities, however, architecture was one of the disciplines that was to remain among the most insulated from these currents of thought. Repetition of the dicta and models the Western masters of the 'forties was the order of the day. Even during the 'seventies, the time when modernism was being called into question in the West, there was no rising wave calling into question these same ideas and theories in the East. Ultimately, Hassan Fathy's work and his ideas would be legitimated by being "rediscovered" in academic circles of the West. After an intellectual odyssey that lasted forty years, widespread recognition finally came in his own home country by the late 'seventies. Although it must be noted that partial recognition had been granted to Fathy in 1967 when, at the instigation of some far-sighted university professors of architecture, he was awarded the Egyptian Order of Merit. That, however, did not lead to significant commissions or widespread academic acceptance in Egyptian Universities, which for the most part remained indifferent (though not hostile) to both Fathy and his message.

This prolonged lack of acceptance only served to motivate Fathy further in pursuit of his cause. But as time went by, Hassan Fathy's emphatic manner preaching his truth forced upon him a number of positions that were etched with a hard edge, that made it impossible for some of the subtleties to remain in the message. And this, to my mind, led many of his followers, if not himself, into three broad shortcomings from which the school of thought whose seeds he has planted is still suffering today.

First and foremost among those shortcomings is an *overly romantic vision of the past combined with a mystic understanding of Islam* as a culture and a presence in society. It is the "flip side" asserting an indigenous cultural identity and the intensive pursuit of authenticity in expression. This pursuit has undeniably contributed to an elaboration of counterpoints that sought to emphasize the "otherness" of the Western mode of thought and thereby underline the differences between the West and the East, between non-Muslim and Muslim society.

The emphasis on defining the difference created, amongst many would-be disciples, a stark image that bore little resemblance to the reality of muted variations and of infinite flexibility that scholars of the Muslim world have come

to recognize and accept. Nor did this narrow interpretation of Fathy's much more subtle message recognize that in the same individual whose cultural identity Fathy and his followers sought to preserve, there is an innate evolving synthesis of modernity and tradition. This synthesis is being wrought by the very nature of a progressing everyday life, a reality that cannot be fitted into the sharply defined categories that these limited intellectual constructs would imply.

An example of this narrow interpretation is the assertion that *only* inward-looking courtyard houses are truly Islamic. This certainly does not apply to much of Arabia, where in Yemen a remarkable heritage of vertical multi-storied outward-looking architecture shows a different conception. It is also incorrect to generalize such a statement to all social strata. In historic Islamic Cairo, for example, a large number of persons lived in multi-family apartments called *Rab'* (plural *Riba'*).⁽¹⁾

In pursuit of a humanistic architecture for the poor, and in his concern with the authentic Egyptian architectural medium, Hassan Fathy ultimately developed an *extremely powerful architectural vocabulary and syntax*, but one that was *primarily rural*. The forms and the medium – adobe – that he chose to express them in were predominantly of a village architecture. Therein lay the second shortcoming. This vocabulary, being rural in character, has limited applicability in confronting the challenge of large-scale urbanization in the Third World generally, where high land values and massive urban densities prevail. There is a need to pursue a new paradigm for the aesthetic form of our sprawling urban metropolises, one that can cope with the standard office building, the dense vehicular traffic, and contemporary technology. To answer these questions Fathy's work provides few clues, although his message of humanism and individuality remains important.

Hassan Fathy's pursuit of an authentic cultural expression and a low-cost medium of building pushed him to experiment very successfully with vernacular architectural techniques, indigenous materials and forms of guided self-help. Having achieved great success in these areas he has encouraged, and rightly so, young architects to look at and recognize that important wealth of experience and expertise that lay at their doorsteps, rather than always seek answers amongst the imports. But at the same time, this intensive pursuit has *kept him from extensively experimenting with the new materials of the 20th century*. This, to my mind, is the third major shortcoming. In the hands of a master such as himself, with his assured use of volumes and forms, his understanding of a cultural

(1) See for example Laila Ali Ibrahim, "Up-to-date concepts of the traditional Cairene living units" in *Ekistics*, vol. 48 No. 287, March-April, 1981, pp. 96-100, and also Andre Raymond, "The residential districts of Cairo during the Ottoman Period" in Ismail Serageldin and Samir el-Sadek (eds.) *The Arab City: Its Character and Islamic Cultural Heritage*, Arab Urban Development Institute, Riyadh and Washington, D.C., 1982, pp. 100-110.

identity whose structures, symbols, and instruments he had so thoroughly internalized, such materials would probably have produced a new set of expressions using 20th century methods and techniques. Perhaps that was not possible, for there is only so much that one can do in a lifetime. It is thus perhaps unfair to ask of one who has already given so much to the architecture of his country, his region and even of the world, why he has not given even more. But it is nevertheless important to highlight these points if one is to try to draw lessons from Fathy's work, to understand the limits of extending them to the problems of a contemporary urban metropolis. It is important to highlight these points to those who have claimed for Fathy's architectural vocabulary a universality of application that it does not possess, and that he himself, the most dedicated of individualists, who vehemently eschewed "cookbook recipes" and always studied every new problem afresh, would be the first to recognize.

The Built Form

The seductive simplicity so characteristic of Fathy's work is misleading. He is an accomplished architectural craftsman with an artistic eye for form, balance and harmony. The learned casualness of his layouts and the almost austere simplicity of his facades owe much more to his creative genius than to the vernacular "architecture without architects" that inspired him.

Through the years, he has worked and reworked some of the key elements of the architectural vocabulary in an unrelenting search for "truth" and "oneness" as he saw them. It is wrong to imagine this visual repetition as an absence of imagination. Rather it is the same perfectionism which is found in Goethe reworking the same manuscript for forty years, or in Ingres and the late Picasso who reworked many variations on the same theme – some of which appeared to be almost copies of the first work.

Discriminating critics have recognized some of these themes:

"The architect accepted not only the forms of this building tradition but the entire constructional system and its constraints. By working within it, he elaborated its spatial and structural aspects. What evolved from a close observation, filtered through the architect's superb aesthetic sense, was a distinct, clearly ordered universe of architectural hierarchies based on the juxtaposition and arrangements of the following elements: the square domed unit, the rectangular vaulted unit, the semidomed alcove, the breeze-way/loggia, the courtyard. The urban forms of Cairo, which he so lovingly collected and to which he referred in his sketches and studies, served to enrich this architectural universe and provided models for later larger-scale projects."(2)

(2) Renata Holod with Darl Rastorfer (eds.), *Architecture and Community: Building in the Islamic World Today*. The Aga Khan Award for Architecture, published by Aperture, N.Y., 1983 p. 240.

By accepting the austere limits of both indigenous materials and construction systems, Fathy's work could not rely on colour or surface texture for effect, except to the extent that his carefully crafted brick facade variations could be termed textural variations. This imposed a heightened importance on volume, forms and fenestration to achieve the overall aesthetic effect. This self-imposed limitation, however, was handled with such artistry that one does not feel that the imagery of the end product is in any way impaired. In fact, it is as if the quasi-monochromatic treatment of exteriors and interiors was a conscious choice to blend better with the surroundings and to heighten the sense of overall harmony that colors or contrasting materials would have ever so subtly disturbed.

It is an evolving polishing and glazing of the work of art, drawing ever more deeply from the same well. There is a strengthening of a set of symbols that are gradually turned into signals, making the image sharper and the message clearer. He succeeded to such a degree that his message has been caricatured by some insensitive critics: "quaint rustic scenes; domes, vaults and arches; courtyards; mudbrick!" That is the same non-sensical oversimplification as saying that Mies' contribution is nothing more than a glass-encased steel box!

In fact, by his later years, Fathy had elaborated a number of aesthetic standards establishing geometric proportions for the elements of his architectural vocabulary that were very carefully crafted but not as restrictive as the standards of the classic orders. On the other hand, some of Fathy's pursuits of a metaphysical symbolism in architectural design are really marginal to an appreciation of his work. In his own hands they may have helped, but in the hands of some of his disciples, this aspect has been turned into a veritable esoteric numerology.

The Man

For many Hassan Fathy remains an enigma. The purity with which he has pursued his vision of the truth, his unwillingness to compromise his standards, and his devotion to his art and his craft have always been a great inspiration to all those who knew him and to many students who have simply heard of him. But his message had a resonance of ambiguity, that came from a populist who was nevertheless a member of the elite. In Hassan Fathy's life and character there is a striking *noblesse oblige* of the aristocrat, a member of the intellectual and social elite of his country.

It is somewhat ironic that Hassan Fathy, whose name is so closely associated with "Architecture for the Poor", built much for wealthy patrons. Just like the great master of Western architecture, Frank Lloyd Wright, Hassan Fathy's

genius was initially appreciated mostly by an intellectual and wealthy elite, whose private commissions remained the important body of his built work. Like Wright, Fathy built for them structures that drew upon a local environment, which in the hands of a master were transformed into a better vision of the reality from whence they sprang, using familiar imagery but remaining categorically distinctive.

The paradox of the situation is sharpened in the case of Fathy since his concern with rural architecture and community building found its expression in four great projects. Two of these were public commissions that were plagued with problems due to socio-economic circumstances outside of his control: New Gurna (undoubtedly his masterpiece and most well-known work) and New Bariz (largely unbuilt). Both were architectural and planning successes flawed by external socio-economic considerations. The other two were private commissions: Lu'luat al-Sahara built for the epitome of the wealthy Egyptian elite, Hafiz Pasha Afifi, and the present Islamic community effort in the United States (under construction). These are hardly the means of guided self-expression for the rural poor. His other famous buildings are private residences mostly for the rich and the well-to-do.

Yet such criticisms are unjustified. To many young architects and planners in Egypt, Hassan Fathy's intellectual and personal integrity shone through the isolation and adversity that an indifferent government bureaucracy and architectural establishment forced upon him. His is the triumph of ideas. The few projects that are known to us (mostly Gurna) are so powerful in their immediacy and their aesthetic appeal that they eloquently express the integrity as well as the artistry of their creator.

Envoi

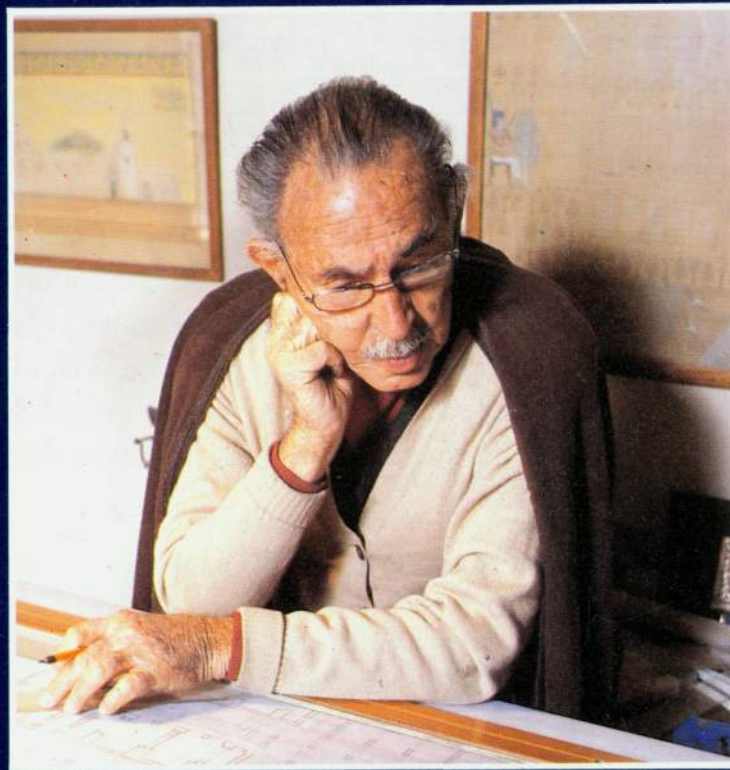
In the final analysis Hassan Fathy's contribution to Egyptian architecture has been his image-making faculty, his ability to give body and form to a concept that was always recognized but that could not be easily seen, remaining formless and invisible simply by virtue of being all around us in the environment in which we live. It was his ability to charge with symbolism, and to suggest and evoke a reality emanating from the ontological substance of an Egyptian society that traces its roots from the mist of time through its most recent manifestation of a predominantly Islamic culture. This was the supreme creation of an artist, for art is an act of bringing truth into being.

In effect, Hassan Fathy has shown us an Egypt which all of us knew was there.

He integrated the information which was available to all but heightened it by his sensitivity and his ability to discover something that otherwise would escape our attention. For Hassan Fathy picked from the world of Egypt many of the forms that he ultimately used to such good effect. But it was an integrating exercise. He transported the skills of the masons from Upper Egypt to the fertile lands of the Delta. He combined these with his own vision and emotional understanding of the myth of a bucolically pure, rural Islamic Egypt. Then the sensibility of a wealthy patron or understanding client was all that was needed to enable him to transform his vision into the lyrical structures that have evoked such a strong empathetic emotional response from all those who saw them. He speaks with incredible immediacy and purity to our understanding of such terms as serene, simple, calm, balanced, peaceful, and above all; beautiful.

In the realm of ideas his emphasis on self-help, concern for the poor, cultural authenticity and individualism are now so widely accepted that it is difficult to remember the revolutionary character of his message when he enunciated it so long ago. It is an impressive legacy. It is a great privilege to have known him personally and to be inspired by his voice and his presence. It is a great challenge to try to live up to the lofty standards he has set for all of us.

THE MAN AND HIS WORK



By Darl Rastorfer

A Glimpse of The Man

HASSAN FATHY is a man of charm, grace and wit. The architecture he has given the world shares these qualities. His writings and conversations have earned him the distinction of being an original thinker who strives for the universal while knowledgeably addressing the particular architectural concerns of developing countries. His buildings clearly illustrate his ideas and preferred techniques. Although the designs speak of an abstract beauty rooted in his intellectual process, they are quintessentially works of personal expression.

Hassan Bey has made himself personally accessible to the public for many years. He hosts an afternoon tea in the privacy of his salon for whomever cares to visit. Virtually every day of the year at least one person makes his way through the winding, congested streets of Cairo's medieval quarter to his apartment, little more than a stone's throw from the Citadel's north gate. Upon arriving at Beit al Fan (House of the Artists), an 18th century merchant's palace at 4 Darb El Labbana Street, Sherban the guardian, a wisp of a man with a quick smile and a tattooed forehead, is there to greet you. There is little doubt whom you have come to see, and he leads you past the ground floor drafting room, points you through the courtyard and up the steep twisted stairs to Fathy's private rooms on the top floor.

Everyone is welcome amidst the urbane clutter of books, carpets, memorabilia from around the world, drawings, and cats (thirty at last count, all born in the apartment). Often as many as fifteen people appear between four and six o'clock for tea, biscuits, and inspiration from their charismatic host.

Sometimes quiet and encouraging, sometimes pugnacious, sometimes the comedian, but always learned, Fathy leads his visitors through a maze of topics, from music to literature, religion to physics, which inevitably centre back on the passion of his life: architecture. If the group is primarily young Egyptians, the focus of his message might be the value of cultural heritage and the need to teach the poor to build housing for themselves. If the group is Japanese technocrats, the main topic of his discourse could be the scientific principles behind the passive heating and cooling in his buildings. Ministers from Saudi Arabia are likely to hear about Islam and architecture; officials from the United Nations, urban and regional planning; architects from the West, craftsmanship; the clients of a villa, aesthetics. Each special interest group comes to Fathy because his projects can clearly embody their individual concerns.

When Fathy speaks of his theories, his speech is rich with metaphor. As he would say in one of his late afternoon chats:

"Beauty comes out when the form considers the force acting on it. Architectural form should consider the forces in nature of wind, rain, even how an earthquake shaking it would make it fall in a pattern that follows the geological formation of a mountain.

"When I am flying, I am very amused by the clouds. The laws of aerodynamics give movement to air which in turn shapes the clouds. The clouds change every minute, every second, and are always beautiful because their form comes from the aerodynamic forces working on them. We would like our architecture to be something like the clouds, man manipulating space only in a rudimentary way with the straight line and the cube and the cylinder à la Corbusier, but not so roughly and bluntly and inorganically as to have a pure cylinder, etc." (1)

For Fathy, man is the measure. Man is the one who sees and feels the forces of nature. The architect should know how man's senses work in order to relate those forces to art.

"Seeing is like hearing music. We hear note after note, it goes to the brain, and you make the melody in the brain. Seeing an image is rhythmic, although it is very quick. When I see, I have this line going here, and that line going there. These lines should be harmonic like music.

"There is a cathedral in the south of France. I saw, by chance, the book of prayer that the master mason who was responsible for building this church kept beside him as a companion. All the proportions are harmonic. The ruling of dimensions is commanded by musical proportions and harmonics.

"If I had a string and I stop it in the middle, I have the octave. Where wavelengths meet, you have the third, fourth and fifth in the music. Like Goethe, I think architecture is like frozen music. If, like music frozen, our abstraction of the material world and our use of light came from harmonics, they would give us pleasure.

"Unfortunately, the eye doesn't suffer like the ear. When you hear dissonance you jump. But when you see an ugly proportion, or whatever it is, the eye doesn't have tears, or get red, or suffer pain." (2)

Fathy believes that architecture must be detailed for a place and a people, because each region has its own specific supply of materials, its climate, and a

(1) In 1980, Fathy flew to the United States and travelled throughout New Mexico giving a series of lectures in conjunction with the initial construction of his village plan for the Dar al Islam Foundation. This quote was taken from unpublished transcripts of those lectures. The lectures themselves were very similar in tone to his tea time "chats" in Cairo.

(2) Ibid.

unique cultural heritage and psychology. These factors influence the expression of a building, as revealed in his reaction to the International Style:

“International architecture, is it not international ill-respect of art and international loss of culture? Because to my mind the best definition of architecture is one that is the outcome of the interaction between the intelligence of man and his environment in satisfying his needs, both spiritual and physical.”

While promoting respect for regionalism, Fathy does not advocate regional isolationism – his own architecture freely mixes elements from Upper and Lower Egypt. Rather, his theory of regionalism challenges architects to understand the context in which they build and to respect what is essential to that place and to the user.

“It is said that if you put anything into the landscape that doesn’t respect the natural environment, you can be punished, either by nature or by man.

“There was once a case in China of some missionaries being murdered in remote villages. Upon investigation, it was found that the missionaries were not being murdered for any religious reasons; rather, they were killed because they put the wrong pitch to their churches’ roofs, and covered the roof with corrugated iron which was jarring to the landscape.

“If such measures were taken in other countries, I think it would not be very happy for many architects – in my country at least, I think it would be terrible! My point is, nothing is fitting in. We have forgotten about nature in creating our architecture. Hence, modern architecture has lost its meaning to modern man.” (3)

The above quotations from Fathy reveal the three axioms around which his notion of a universal poetic revolves: man is the centre of architecture; man is a part of nature and is therefore embedded in nature’s universal laws; the architect’s mission is to harmonize built form with nature such that built form serves as a rational and lyrical mediator between man and the environment. Of course, Fathy’s teaching embraces both the highly abstract and the painstakingly practical. Interestingly, his architecture seems equally supported by, and is, in a sense, a bridge between these extremes.

Fathy’s remarkable ability to synthesize polarities is well established. His architecture has brought together the sensibilities of the East with those of the West, high technology with low, the concerns of the affluent with those of the poor, naivete with sophistication, urban form with rural, and the past with the

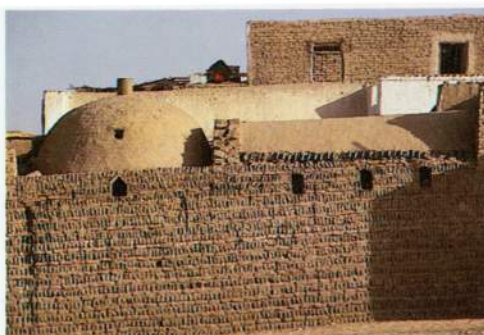
(3) Fathy: Lectures in New Mexico, 1980.

present as it aims to cultivate the future. His synthesis of diverse forces has resulted in a unique architectural language. This language was developed in an astonishingly short period of time – less than five years. Over the next forty years, Fathy explored the potential of the language to adapt itself to a wide range of building types and economic constraints. The coherent series of buildings that resulted represents a formidable tribute to his native culture and a significant contribution to the architecture of the 20th century.

Beginnings



i. Traditional village in Gharb Aswan, Nubia.



ii. Detail of Nubian house.



iii. House entrance. Nubia.

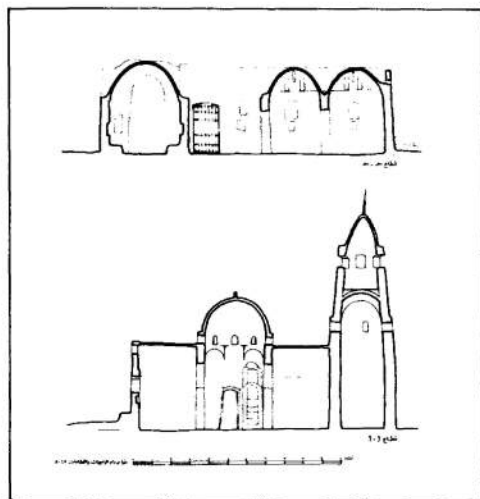
- (4) Evidence of Fathy's interest is attested by the measured drawings he made of Medieval monuments during this period. Unpublished, the drawings are among the architect's personal papers in Cairo.

THERE APPEAR TO BE no circumstances or singular events in Fathy's early life that anticipated the unconventional direction he would pursue. Born in 1900 and raised among the landed elite of Egypt, Fathy spent his adolescence and early manhood in a pattern typical of that class. With residences in Alexandria and Cairo, his family led an urban lifestyle. There was travel to Europe, but never trips to Upper Egypt or the countryside of his own homeland. His advanced education in architecture was at the Polytechnic of the University of Cairo (from which he graduated in 1926), where he studied under British professors who followed a curriculum based on that of the late 19th-century Ecole des Beaux Arts. Fathy himself became an instructor at the University from 1930 to 1946.

Little is known, and no records exist, of the first fifteen years of his career. Presumably, his architectural work, thinking, and teaching conformed to the norms of his own education and the professional establishment. This was a time when British colonial architecture, squarely grounded in Western history and advanced technology, was singularly acceptable in Egypt.

However, in the late 1930's Fathy turned to Egyptian sources. It is at this time that the extant record of his work begins. His shift to regional sources seems more a seductive process than of any conscious desire to resist the *status quo*. He had long been captivated by Medieval Cairo with its splendid palaces and monuments built by the Mamluks and Ottomans. (4) These buildings offered direct contact with an architecture of humanism based on analytic precision and physical sensuality. At the same time, he became enamoured of the rural environment with its simple, picturesque dwellings. Was it possible to marry these architectures which shared a common national history, but differed radically in their economic origins and aesthetic sensibilities? Of the two, Hassan Fathy found the mud brick buildings and villages of Egypt's countryside to be the more approachable in terms of current social needs and technological adaptability. It followed that this source most activated his initial creative development and provided the first testing ground for his ideas.

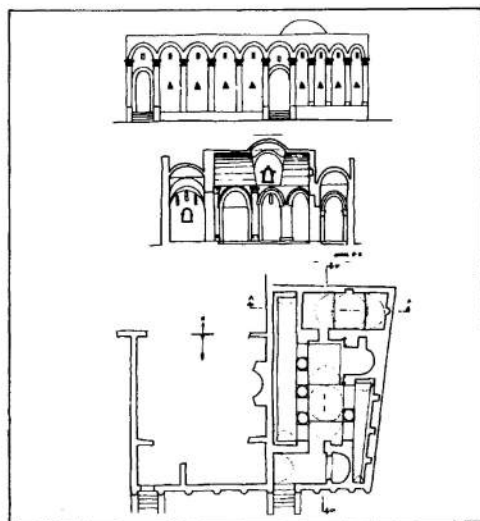
Oddly enough, the architect had no early first-hand experience with the countryside, even though his father owned several country estates. Owing to his mother he did, however, have an *image* of the country. She had spent part of her childhood on a farm. Her loving description of green fields, domesticated animals, and rural peasants presented a picture of paradise that seized Fathy's imagination and heart. When, at age twenty-seven, he made his first visit to a



iv. Longitudinal and courtyard sections through Gharb Aswan Mosque.



v. The Christian necropolis at Bagawat, Kharga Oasis, 3rd Century, A.D.



vi. Elevation, section and plan of tomb no. 25. Bagawat.

family property, his image was shattered by the squalor he saw on the farm and in the adjacent village. (5) Nevertheless, an immediate kinship formed between the architect and the real rural Egypt. Was it possible to realize good design with the country's ubiquitous building material – mud brick; could such design serve a concern to assist the rural poor to develop a better way of life?

Combining a preoccupation with common mud brick technology and features from landmark Islamic architecture, Fathy developed a series of house forms that, in 1937, were exhibited in Mansoura and Cairo (plates 1-8). The houses were prototypes for country residences to be used by landowners during routine visits to oversee their estates' management and to collect tribute. Conceived as compact volumes, even where grouped, each building remains independent in the landscape (plate 6). The architectural image presented in these studies was peculiar indeed coming from a university-trained architect. The elongated domes and pointed arches replicating medieval, urban structural forms are freely arranged with the squat, rectilinear masses that characterize vernacular peasant buildings of the Upper Nile Valley. Though the exhibition stimulated interest among potential clients, no experiments immediately followed. It was not until 1940, at age forty, that Fathy was presented with his first commission.

The Royal Society of Agriculture asked the architect to design a farm complex for Bahtim. The project presented an excellent opportunity to utilize a mud brick technology: the site was rural, the budget modest, and the other agricultural structures in the area (not designed by architects) were of mud. Making virtue of necessity, he had to design with mud because no concrete, steel or timber was available – the beginning of World War II had taken those commodities off the construction market.

The farm was designed with load-bearing masonry walls, vaults and domes. Construction of the walls proceeded without complications. But the construction of vaults and domes presented an obstacle. Fathy had relied on the local masons' skills to realize his design without direction from himself. The masons of the area were accustomed to building masonry spans with the aid of formwork. But even the small quantities of material necessary for formwork were unavailable at that time. Frustrated, but not to be deterred, Fathy insisted they could do what the pharaohs had done: build vaults and domes without intermediate support structures. The masons tried, but each attempt to construct the vaults resulted in collapse.

(5) Hassan Fathy, *Architecture for the Poor* (Chicago, 1973), p. 3.



vii.



viii.



ix.

Nubian masons closing a dome (vii, viii) and vault (ix.) for Hassan Fathy's Greiss House.

Fathy discussed this problem with his brother, at that time working in Aswan. His brother encouraged him to visit Aswan where the Nubians were building vaults and domes for their houses and mosques without framework. Fathy went in February 1941. There on the west bank, the architect saw the settlement of Gharb Aswan developed along the line separating the fertile Nile valley and arid hills (ills. i-iv). The image of its highly sculptural buildings, and the overall harmony of the village was immediately captivating. No less attractive to Fathy was the technology from which the buildings sprung.

The Nubian population was faced with providing shelter against a hot and arid climate with very few material resources at its disposal. The simple, bearing wall structures they developed use sun-dried mud bricks. Vaults and domes span the walls. Because no wood is available in the region for formwork, spans are constructed by “leaning” each course against the other. (6) In that way, vaults and domes are built in mid-air (ills. vii-ix). Because the walls are thick, houses maintain a comfortable interior temperature year-round. Fathy saw that in terms of economy, performance and “buildability”, the Nubian architecture surpassed most contemporary rural Egyptian housing.

During the same trip to Upper Nile Valley, he noted other examples of aesthetically refined mud brick architecture built with similar techniques and materials – the Fatimid Necropolis and the Monastery of Saint Simeon both in Aswan, and the Nineteenth Dynasty granaries in Luxor. These references were later reinforced at Bagawat (ills. v, vi) where Fathy studied and made measured drawings of the tombs.

When Fathy returned to Cairo, he arranged for two Nubian masons he had met in Aswan to join him and build the Royal Society of Agriculture Farm's vaults and domes using the incline method. The completion of the project was significant on at least two grounds. First, the difficulties presented by this first project had led Fathy to examples of Egyptian architecture that helped crystallize the vocabulary of primary elements he had been grappling with since the mid 1930's: the dome projected above the square in plan; the vault used to enclose long rectilinear rooms or for shallow ancillary spaces (*iivans*); and the arch that opened the bearing wall, thus freeing, in plan, the fundamental geometry of the structure. Second, the project presented an architectural prototype that was seen by many people. No doubt, the notoriety of the Society Farm stimulated the series of commissions that immediately followed.

(6) Ibid, pp. 8-10. A full accounting of this system as applied to New Gourna is offered in Appendices I-VI of *Architecture for the Poor*.



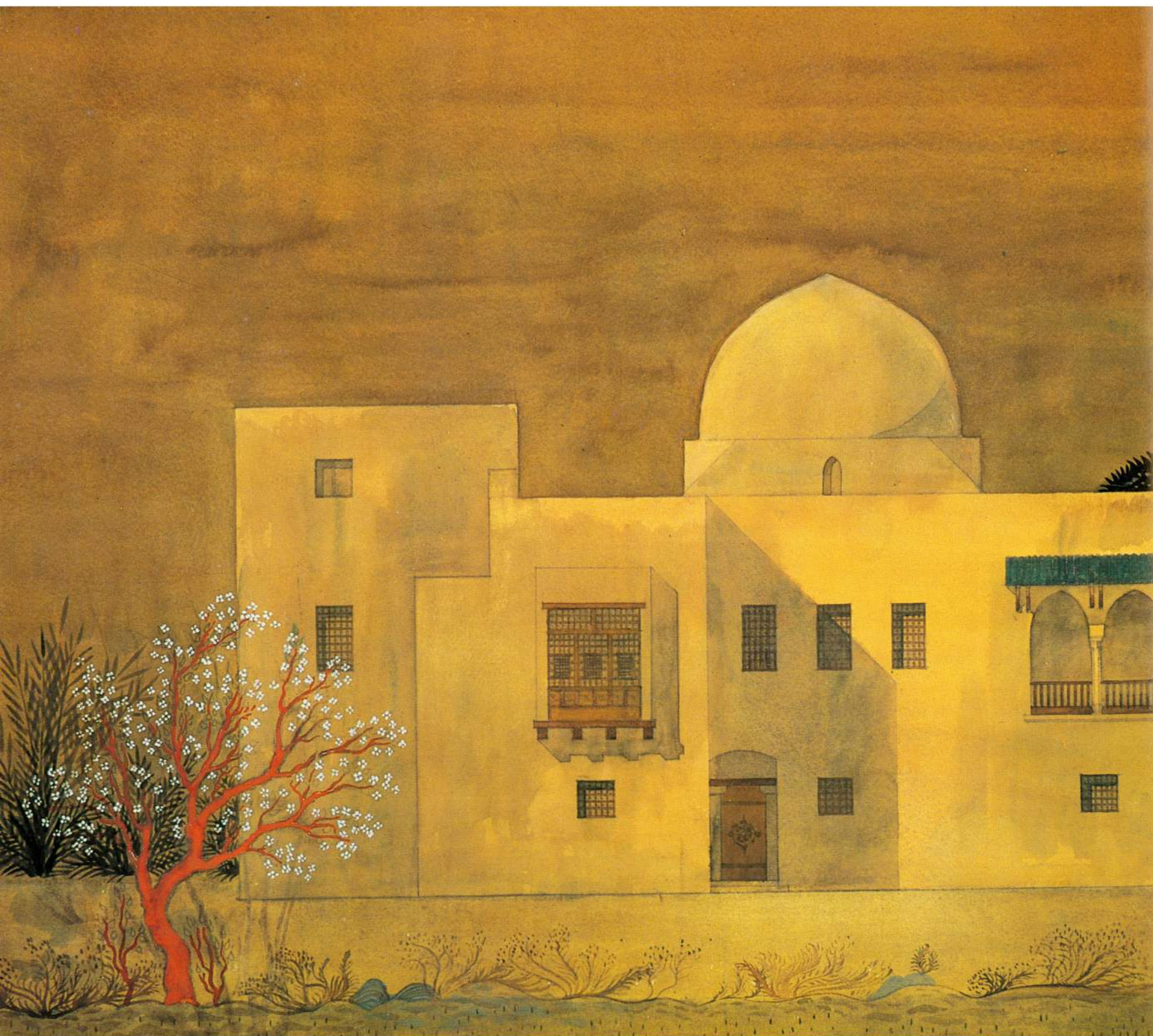


Plate 2 Facade study for a country house. Gouache on paper. c. 1937.

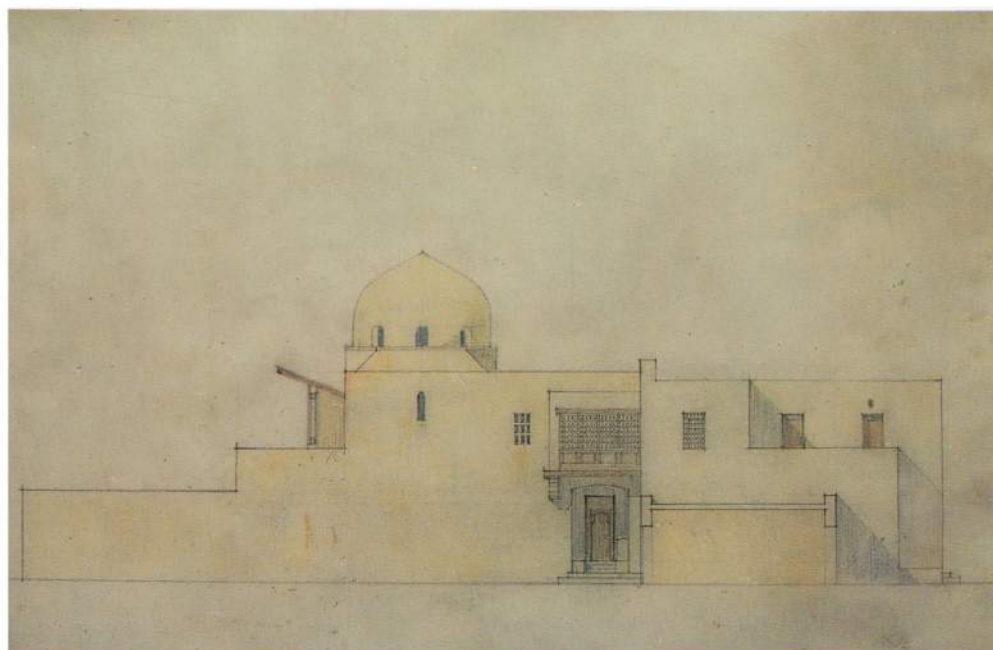


Plate 3 Facade study, Gouache on paper. c. 1937.

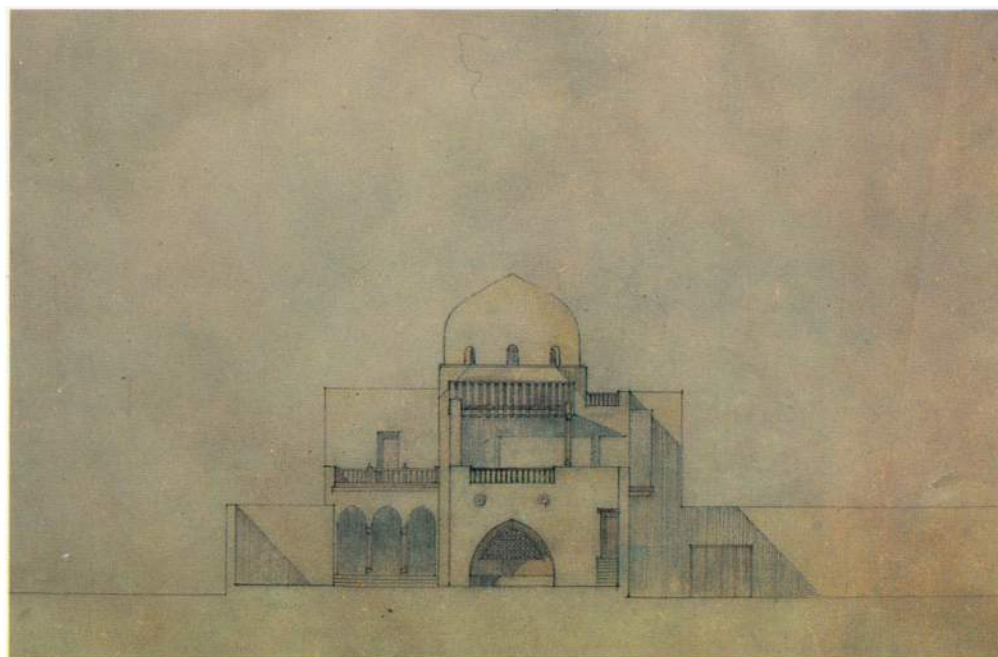


Plate 4 Massing study for Kallini House. Color pencil on tracing paper. c. 1937.



Plate 5 Rendered elevation study for Nasr House. Gouache on paper. c. 1940.





Plate 6 Massing study for Kallini House. Color pencil on tracing paper. c. 1937.



Plate 7 Study for mud brick country houses. Gouache on paper. c. 1937.

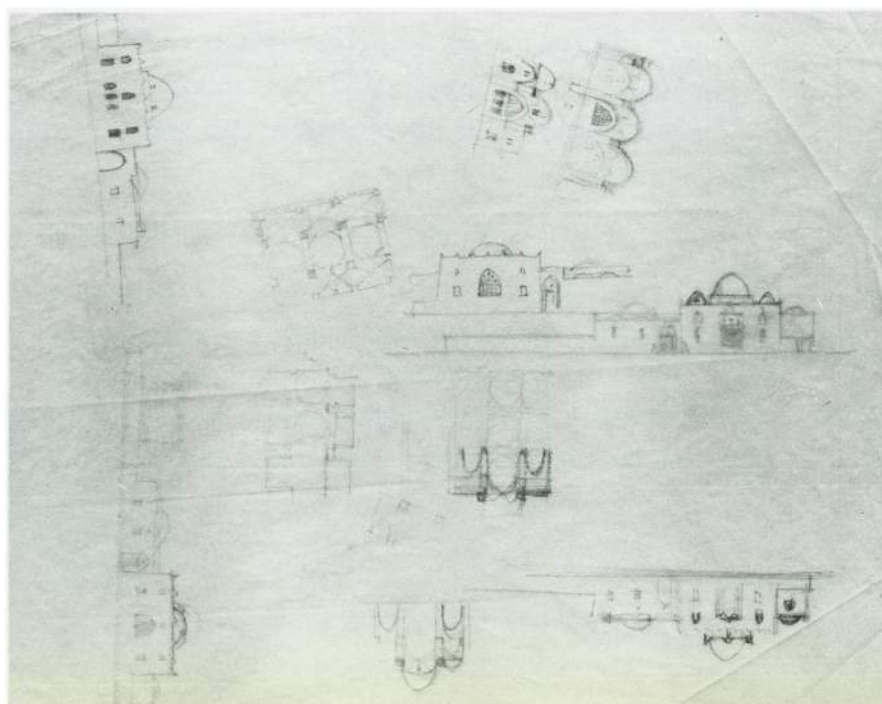


Plate 8 Sketch studies. Pencil on tracing paper. c. 1940.

The Early Houses

WITH A HEIGHTENED AWARENESS of mud brick's technical and aesthetic potential, Fathy launched a series of modestly priced, private house constructions. The first such house was designed for Hamid Said. Built in 1942 and expanded in 1945, the residence began as a simple weekend retreat conceived in terms of a vault, dome and ancillary vaulted *iwan* (plates 9-11). The main vaulted space was left open at one end so that it could function as a loggia. The dome was raised on squinches – the structural technique that resolves square supporting walls with the circular base of a dome through an eight-, then sixteen-sided transitional zone (plate 20). When the house was expanded an enclosed courtyard organized the plan comprised of additional connected vaulted and domed chambers.

The Nasr House (plates 12-16) was designed by Fathy in 1945 as a rest house for the wealthy landowner. Far more ambitious in scale than the Said House, it too is strictly composed with vaulted and domed spaces. Unlike the earlier house, the expression of the spanning structure is concealed with parapet walls. The dome over the main living space, however, rises visually above the ground-hugging peripheral mass. An outdoor patio is provided, bordered on one side by an arcaded loggia, but absent is a fully enclosed courtyard, usually characteristic of Fathy's house design (plate 13). Equally uncharacteristic is the use of trabeation (horizontal beams or lintels rather than arches).

The third house from this period, the Stoppleare House, was built in 1952 for the Department of Antiquities (plates 17-22). More ambitious than the other houses in terms of its size and the number and dimension of its domes, this house incorporates three interior courtyards and the suggestion of a fourth at the entrance.

As building details were kept simple, the overall expression of these houses rests solely with the proportion of each faceting in the mud-plastered mass and with the placement of openings in the wall. The particular proportions and surface articulations Fathy uses give the buildings a somber presence in the landscape. Their low centers of gravity are accentuated by the occasional canting of walls. Romantic in nature, these early works rely heavily on the architect's intuitive sense of balance for composition. In the later houses, a more sophisticated system of mathematics will guide the overall sense of unity wherein an inherently romantic architecture expresses itself through classical forming principles.

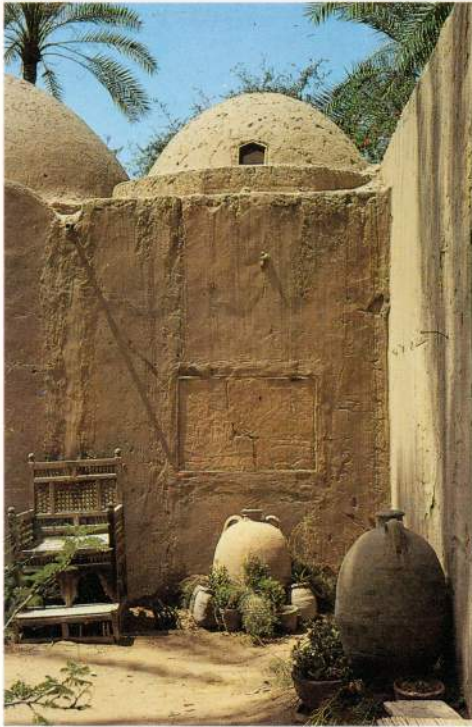
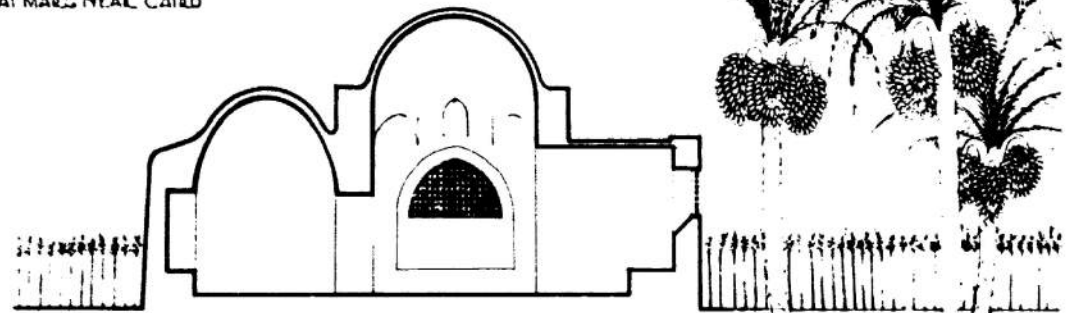


Plate 9 Courtyard.



Plate 10 Facade with loggia.

STUDIO FOR MR. HAMED SAID
AT MARG MARI, CAIRO



SECTION A-A

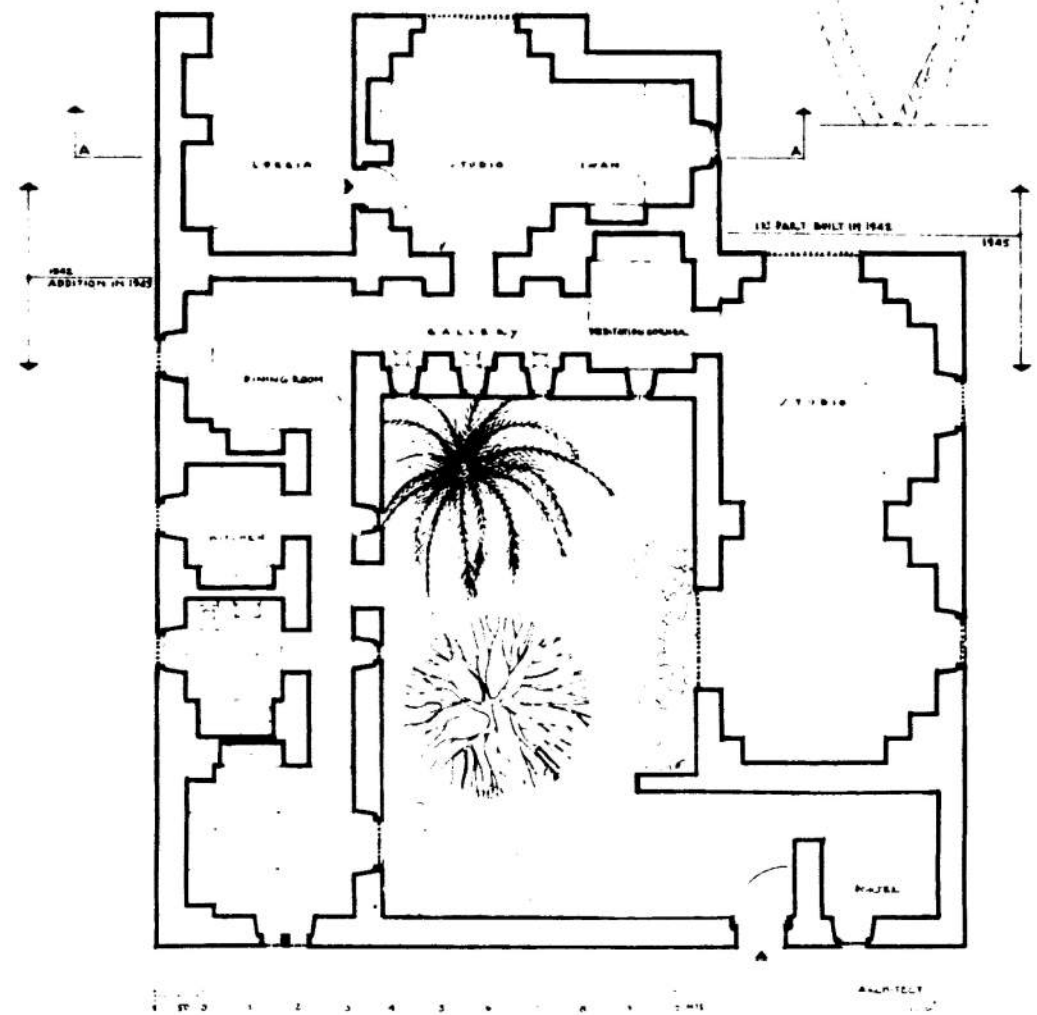


Plate 11 Plan and section. 1942, with 1945 addition.



Plate 12 East facade.

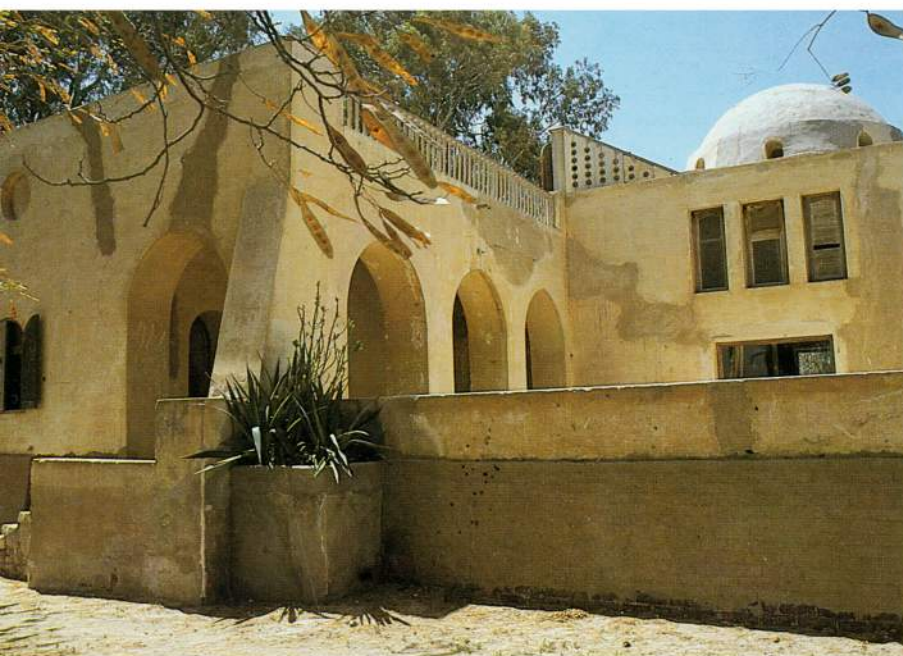


Plate 13 Massing at patio.



Plate 14 Window viewed from the outside

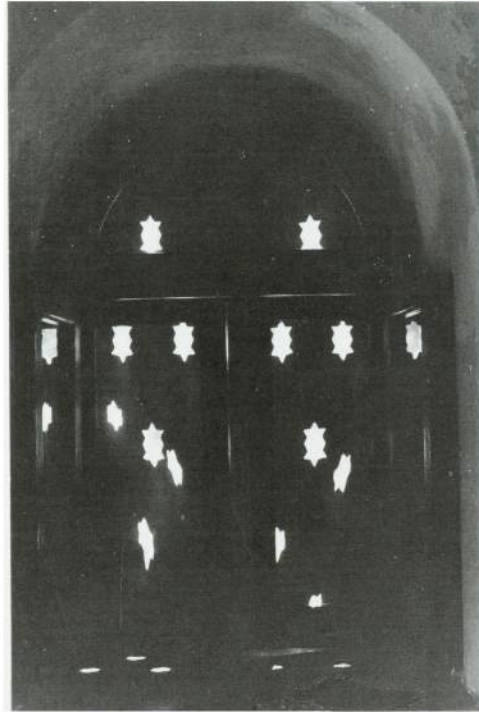


Plate 15 Window viewed from the inside.

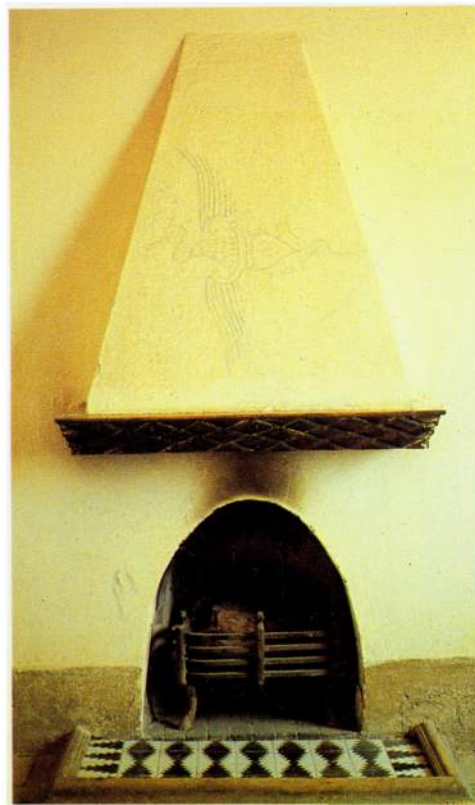
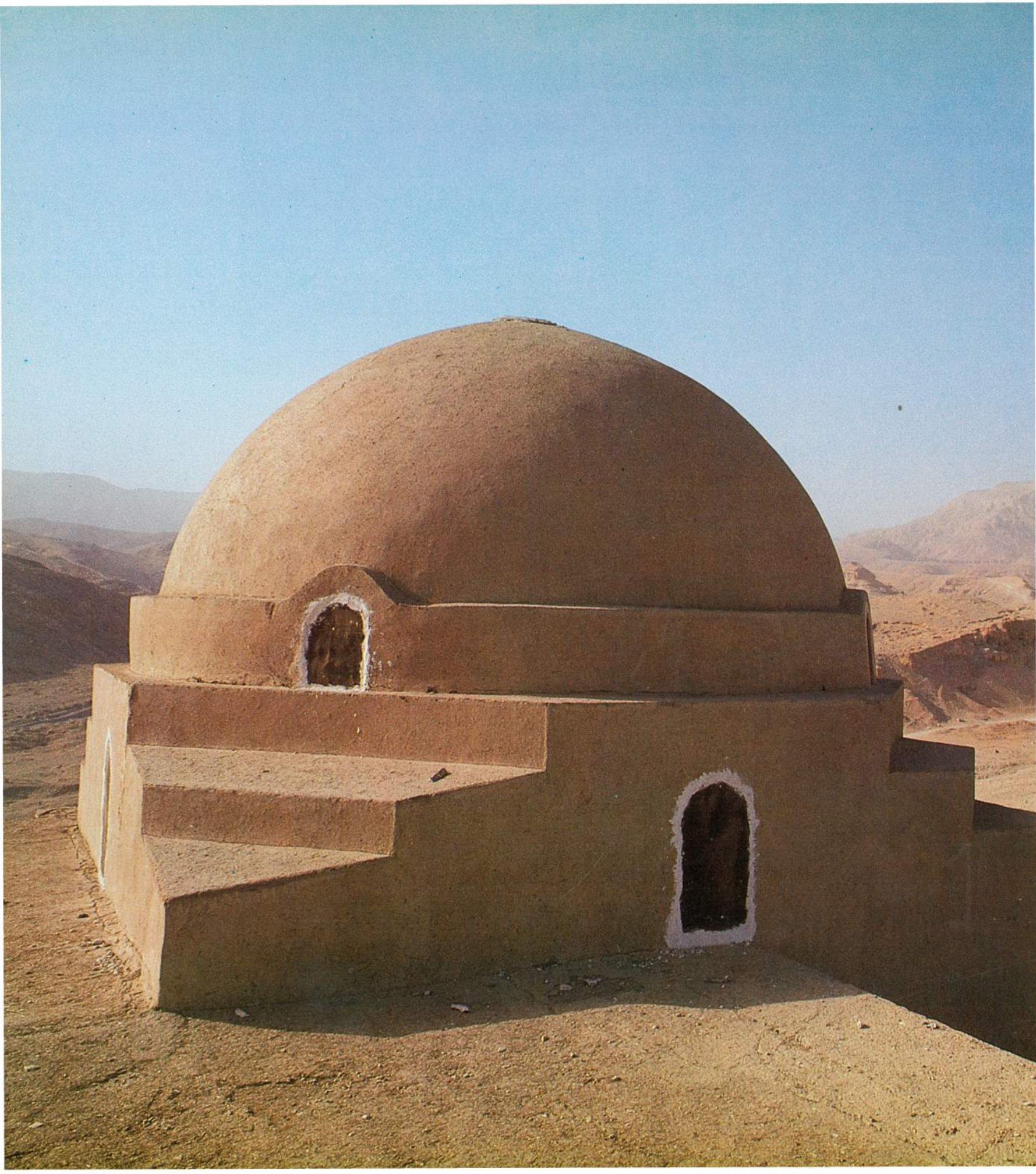


Plate 16 *Dorka'a* fireplace.



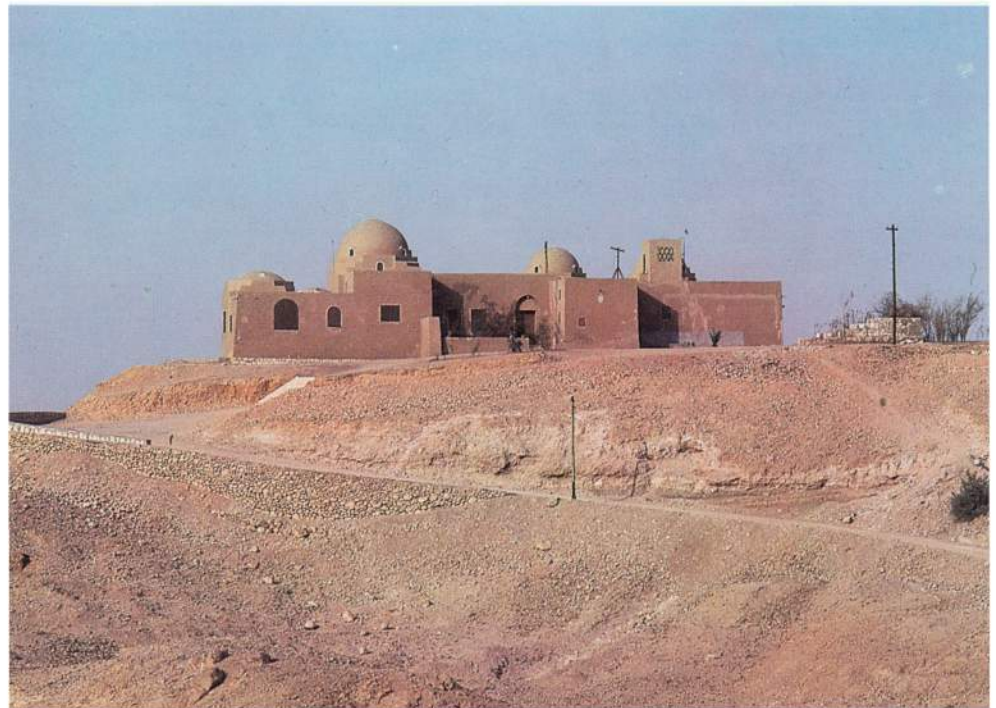


Plate 17 Southeast facade.

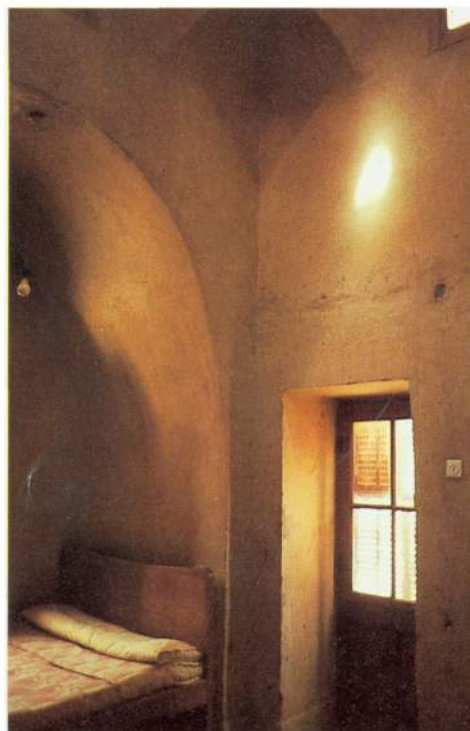


Plate 18 Guest bedroom.

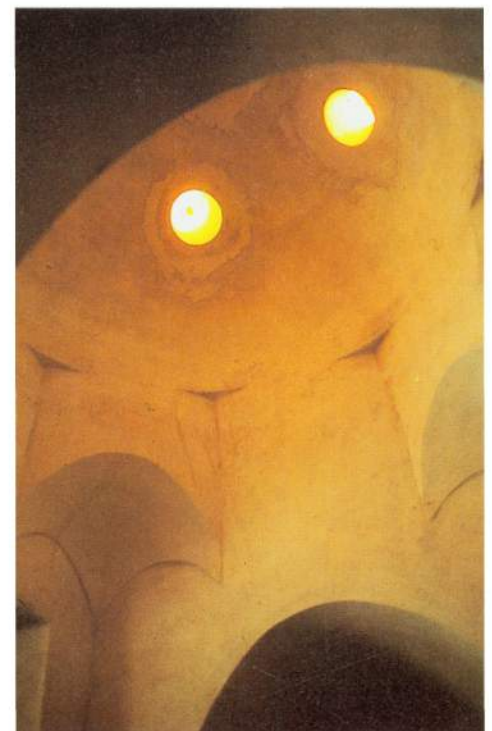


Plate 19 Dorka'a dome on squinches.

Plate 20 Roofscape.



Plate 21 Massing at southeast corner.

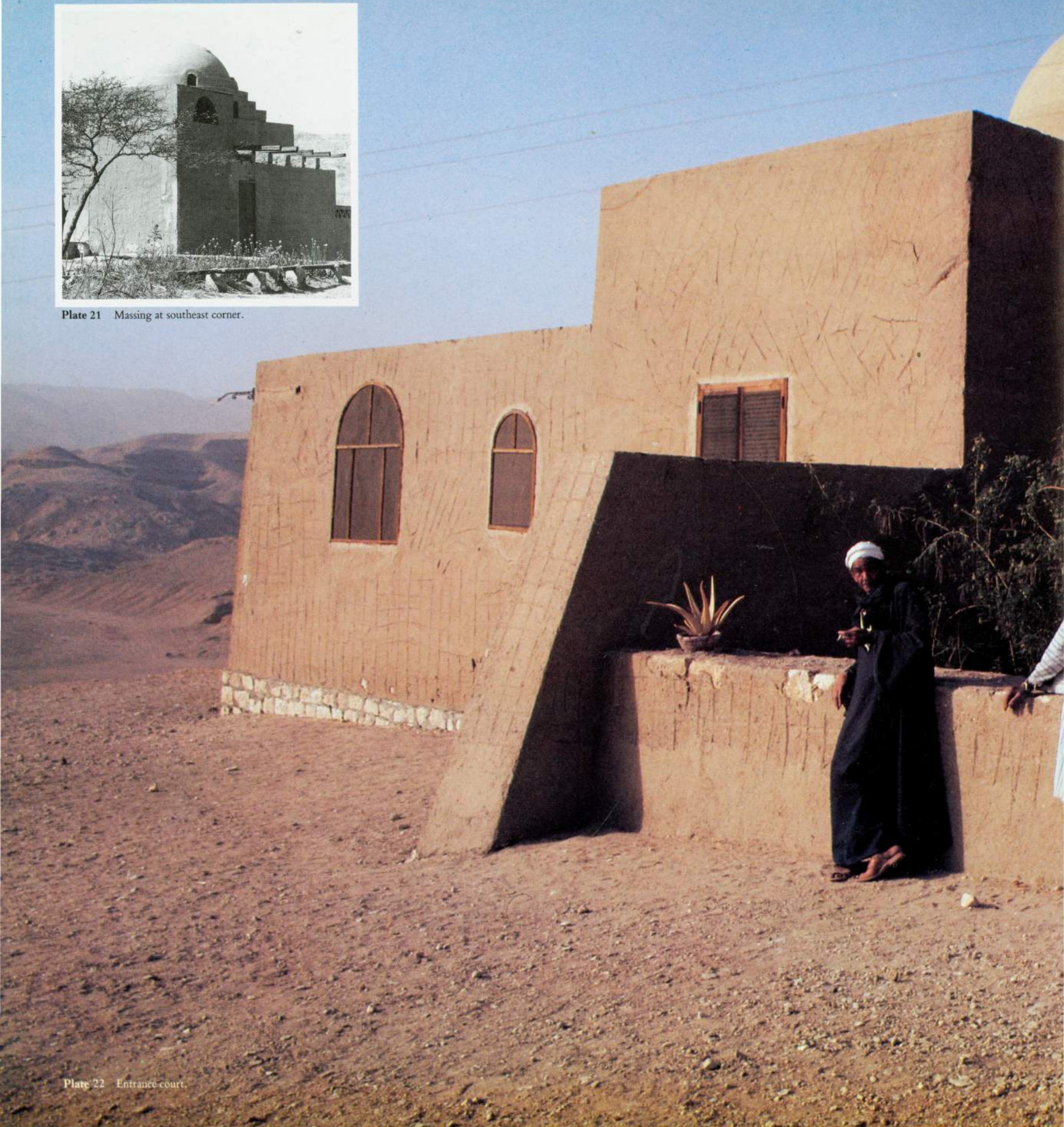
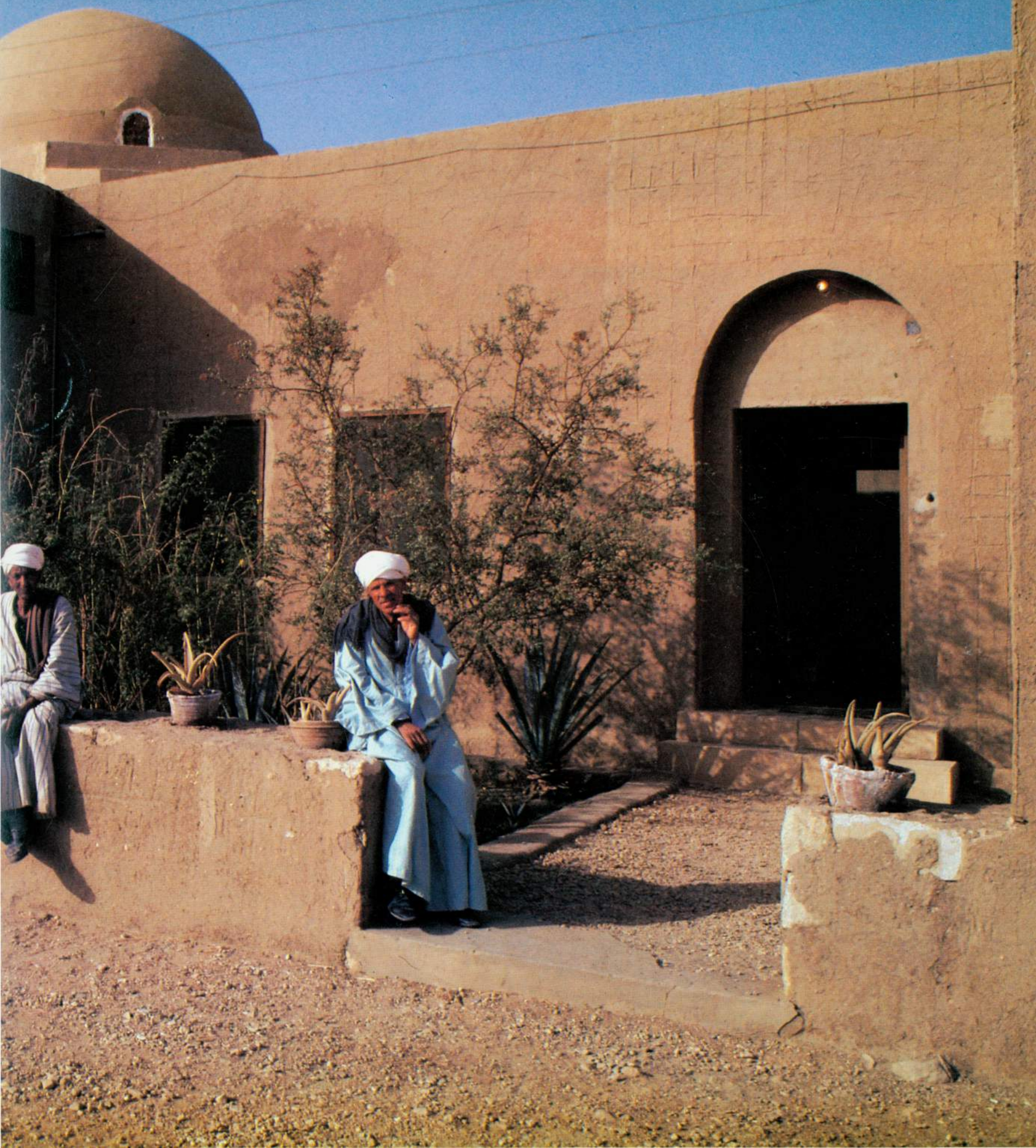
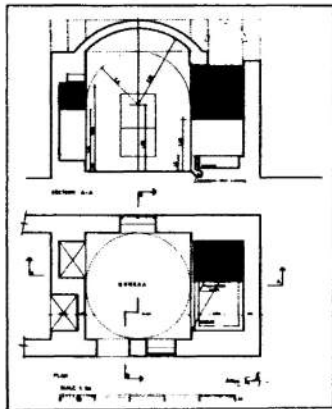


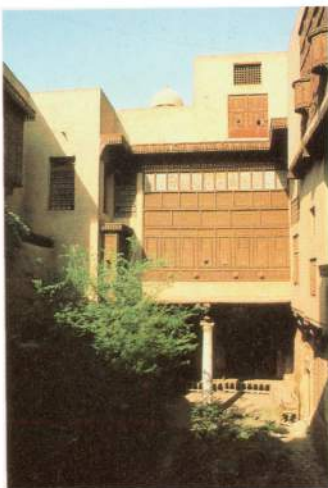
Plate 22 Entrance court.



The Late Houses



x. Plan and sections of a prototypic *ka'a*.



xi. Courtyard facade Souhemi House, constructed 1648-1796 Cairo.

A PERIOD OF nearly twenty years passed between the completion of the Stoppleare House and the construction of a private retreat in 1971 at Sidi Krier. During this period Fathy continued to practice actively; (7) however, he built very little and saw no private house designs realized. The house at Sidi Krier was made for himself at the Mediterranean seaside (plates 23-32). This project was followed within the next ten years by the Riad House, Samy House and Mit Rehan (plates 33-72). The material for construction in this group changed from mud brick in the early houses to stone and fired brick. The change in material, however, does not account for the architectural differences. Together, the late houses present a unique study in abstract formalism as they embody a mature paradigm which extends the basic structural vocabulary of the early houses to include an all-embracing proportional system and a fully developed repertoire of infill elements.

The source of inspiration for Fathy's formalized proportional system came through archaeologist R.A. Schivaller de Lubicz. Fathy met de Lubicz while working in Luxor on the New Gournia project. At that time, de Lubicz was developing a body of research on the Temple of Luxor that indicated the pharaohs knowingly related human proportions to plan-form. Fathy became enamoured of a possible architectural theory whereby *mathematical functions* relating dimensions could introduce human scale in architecture while relating all elements into an overall harmonic unity. Already the dome and vault provided lyrical spaces and masses. Fathy began factoring π (3.14...) and ϕ (1.61...) and multiples of the pharaonic cubit (46 cm.) in the intervals used in the plan of rooms, height of walls and doors, and depth of squinch zones, in order to infuse each spatial unit with a consistently well-centered, uplifted dynamic. In addition, the architect maintained the geometry of construction he had used earlier. The ratio of height to width of parabolic curves used for vaults was set as a factor of ϕ (the golden mean) and the span. Byzantine domes were defined as a hemisphere originating at the interstitial springing, and rising exactly one-sixth of a sphere above the arced inflection of the supporting walls. Domes on squinches were hemispheric. Pointed arches were invariably determined by dividing the span at the springing into six equal intervals, and drawing the left and right arcs with radii that reached across the center from the second and fourth intervals. Taken together, these mathematic standards and manipulations embody a formal discipline that imbues each house of the 1970's with an inspired self-assurance.

(7) See chronology.



xii. Marble and wood interior detail.
Musafirkhana Palace, constructed
1779-98 Cairo.

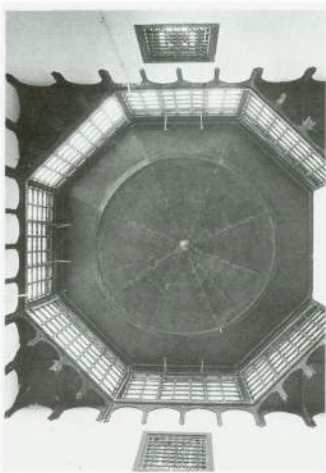


xiii. Cupola. Souheimi House.

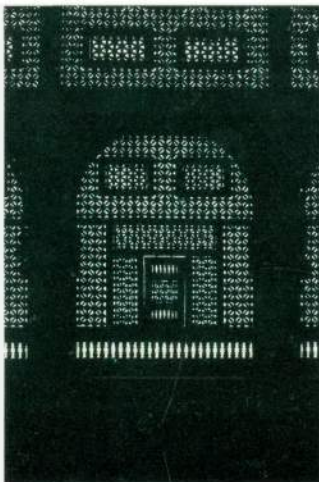
To the heightened sense of regularized geometry Fathy lavished greater attention on the infilling of openings and built-in cabinetwork (plates, 45, 52, 66, 68, 72). Just as he had promoted a living tradition in brick-working skills, Fathy engaged carpenters and glass artists in Cairo, whose craft had been handed down from father to son in an unbroken chain that spanned several centuries. Palaces in Cairo offered inspiration for an integration of meticulously executed finishes in rich materials and a simplified architectural framework (ills. xii-xiv). Be it a cabinet door, *mashrabiyya* screen or stained glass window, each area of detail follows its own internal logic while taking fundamental cues from its larger architectural context. As with traditional building, Fathy determined the number, distribution and dimensions of openings and built-in features, but relied on craftsmen working in cooperation with the homeowner to generate the precise design.

In plan, the late houses are comprised of a courtyard, a *ka'a* (main room), bedrooms and service spaces. Courtyards (plates 34, 47) play a major role in the ensemble. Individual enclosures are gathered around them for light and air. The courtyard also functions as an independent space, with its own identity typically enriched with a loggia, sometimes graced with a fountain and, when fully enclosed, offering controlled visual access to the sky. The *ka'a* (ill. x), comprising a central domed space (*dorka'a*) and flanked with radiating alcoves (*iwan*s), serves as the major interior space. It is always protected from the building's threshold by a domed entry hall or corridor. The *ka'a* is the most architecturally complex room in Fathy's design; it is capable of supporting a variety of activities – dining, lounging, studying, sleeping – each taking place within the spanning structure of the *iwan*. Another important area of each house, though not a room *per se*, is the roof (plates 23, 43). Accessible by independent stairways and upper level doors, roof terraces enliven the buildings by making them surmountable sculptural objects.

In visiting the late houses, one is struck by the dynamic pattern that choreographs the shifting path from space to space. Walking through the rooms and corridors – veering left or right, upstairs and down as views open and close – movement is animated by changes in section and punctuated with natural light. Even at rest, the eye travels across implied spatial boundaries and beyond perforated walls, reaching through non-axial vistas framing partitions of light and shadow. The rooms themselves, whether simple or complex, are self-contained, growing from the inside out.



xiv. *Mashrabiyya* by Hassan Fathy.
Mehrez Apartment. Cairo.



xv. Cupola by Hassan Fathy.
Mehrez Apartment. Cairo



xvi. Private living area. Mehrez Apartment.

As prescribed by his own theory, the architectural components are integrated like the notes of a musical composition, with intervals controlled by a few mathematic factors, much the way tonal relationships in music are based on the simple physics of vibration. As was mentioned, the source of the proportions is pharaonic architecture. This architecture was in turn thought to be based on the physique of the ideal man. (8) In an abstract manner, the geometry of the architecture is humanized by recalling the geometry of the body. Fathy's greater ambition was to have quantifiable geometry lift material matter to a spiritual dimension. This too was believed to be an aim of the pharaohs. As Fathy has explained :

"The Royal Chamber in the Pyramid of Cheops is commanded by sacred geometry. Its form radiates. They say it has a healing power, this room. It is not a burial room; it was for purifying man from all diseases. These are the secrets which we have lost, and we hope we can come back to them." (9)

Spirituality, or an energy from a whole greater than the sum of its parts, could also be engendered through the process of building itself.

"Man receiving impulses from the outside, from the universe – the sky, the sun, the moon, the wind – and brain, should transfer this knowledge through his fingers when giving shape to material. If he does, he will radiate from his body into the materials and forms. That which is created will in turn re-radiate the same feelings."

"We have some monasteries in the desert in Egypt. I met a monk at one of them. He had made his own cell with his own hands, very simple and radiating spirituality. Later on, I visited the same monastery, and I found they had replaced the adobe shelters with ten identical cells of concrete. I was horrified. I went to the bishop and I told him, My father, what have you done to your monks. These rooms are rooms for servants in a third-class hotel in Cairo, and you have lost their spirituality." (10)

This belief in the "spiritualization" of building helps explain Fathy's preference for technologies that minimize the machinery mediating between man and materials.

Whether or not Fathy has evoked a spiritual dimension to his buildings is something that must be judged by each person who visits them. Certainly the house designs since 1971, both built and unbuilt, constitute remarkably disciplined exercises. They employ an economy of means to produce a wealth of complexity while retaining an overriding sense of simplicity. In these residences,



xvii. Entrance hall by Hassan Fathy. Monesterly House. Giza.



xviii. Entrance portico. Monesterly House.

as well as the Monesterly House of 1950 (ills. xvii, xviii) and the Mehrez Apartment (ills. xiv, xv, xvi), Fathy demonstrates an uncanny ability to select idioms from diverse sources and to assimilate them into a personal language. With the country villas, a structural system from Upper Egypt is transplanted in Lower Egypt, and urban ornamental craft merges with a rural building form rendered sophisticated through geometric manipulation.

In a series of larger-scale projects – palaces, luxury hotels, buildings for permanent cultural expositions – Fathy extended the basic forming principles of the late houses through a process of simple addition. Only one such project has been realized in Egypt, the Presidential Rest House in Kalabsha (plates 73-78). Given the scope of the program, one is surprised by the relatively small, certainly human, scale that pervades the complex. As with the smaller houses, the scale of the Rest House derives largely from the structural limitations to approximately three and a half meters. The rooms determined by the module are organized around open courtyards or along vaulted corridors. To form the major interior space, Fathy has elaborated the *ka'a* into a vaulted hall intended to serve formal reception, meeting, and dining functions (plate 70). The larger projects, such as the Presidential Rest House or others comprised of more than one building, began to require planning at the scale of a village. However, Fathy's practical experience in the architecture of communities began with New Gournah, discussed in the following section.

(8) See R. A. Schwaller de Lubicz, *The Temple In Man* (New York), 1977). For a parallel theory of Renaissance architecture see, Rudolf Wittkower, *Architectural Principles in the Age of Humanism* (New York, 1971).

(9) From the 1980 lecture series.

(10) *ibid.*



Plate 23 Steps to roof terrace.

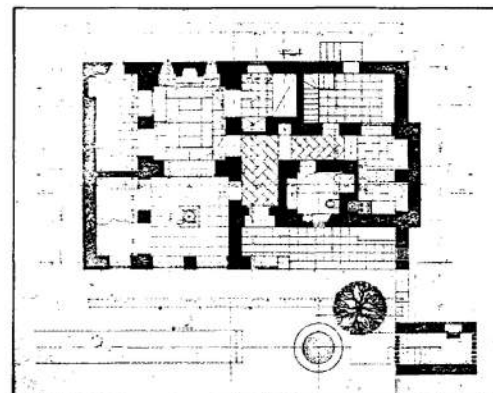
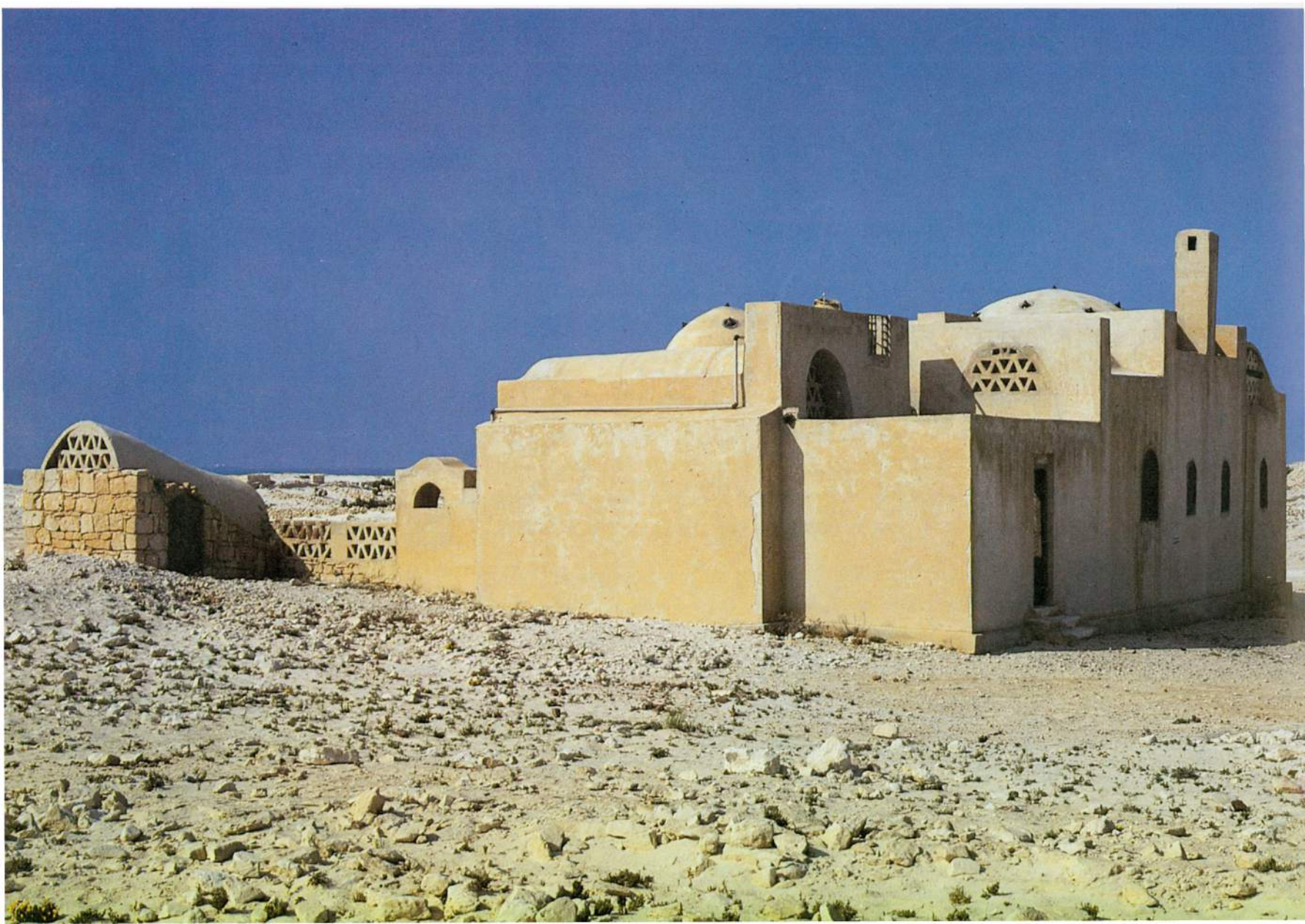


Plate 24 Plan. 1971.



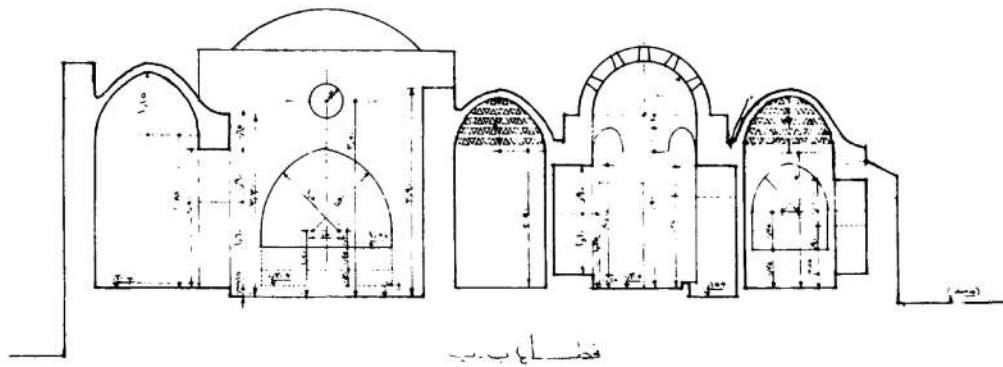


Plate 26 Longitudinal section.

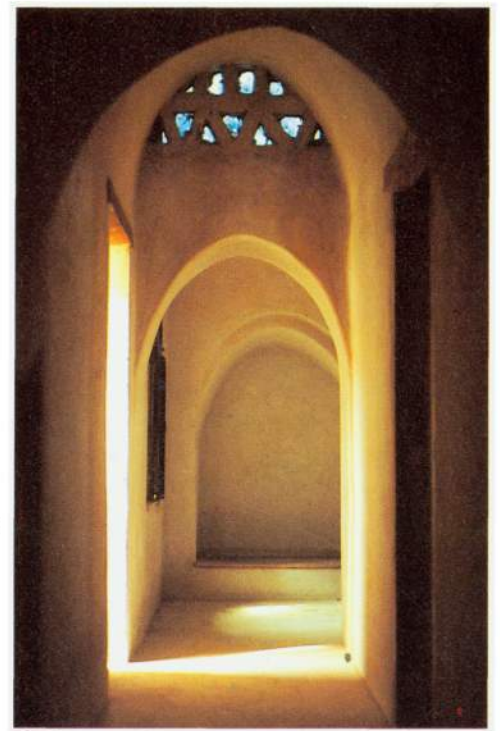


Plate 27 Corridor.



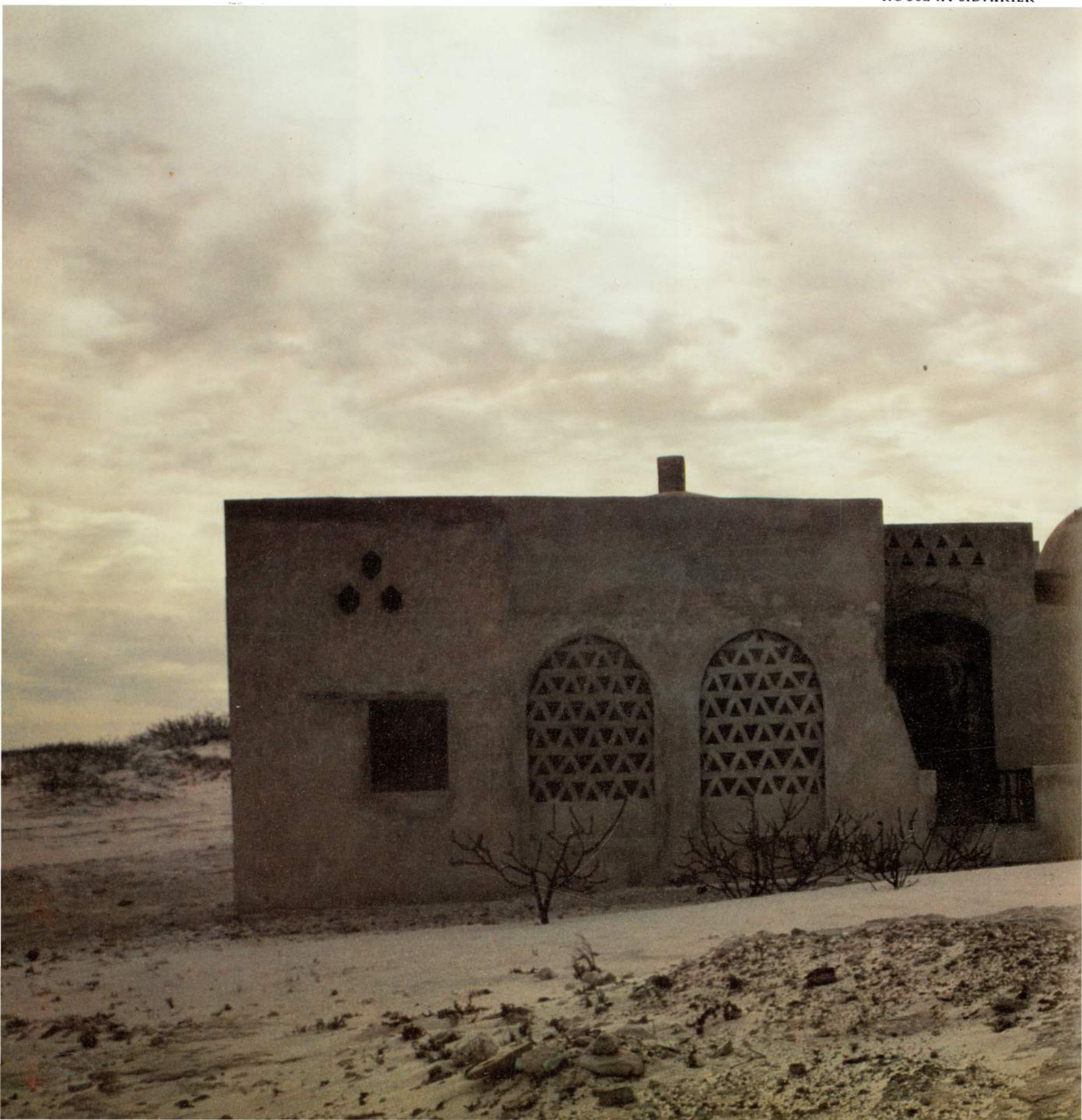




Plate 29 Mediterranean facade.



Plate 31 Mediterranean facade.

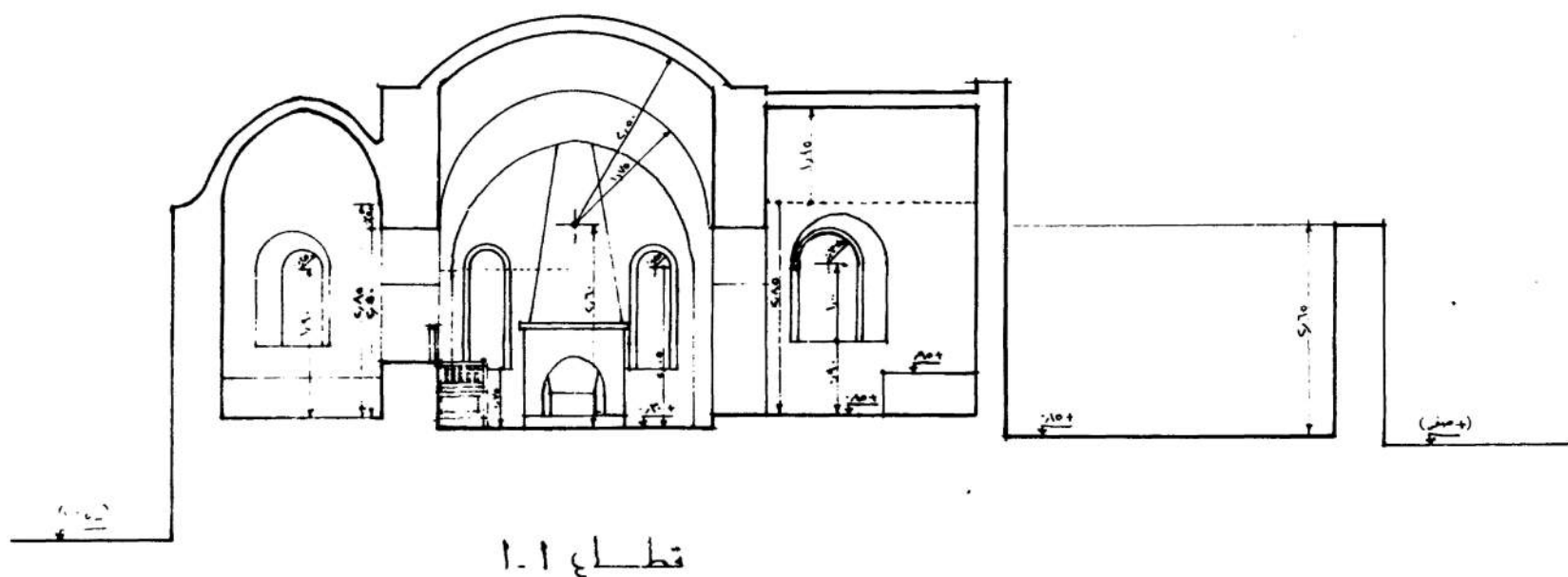
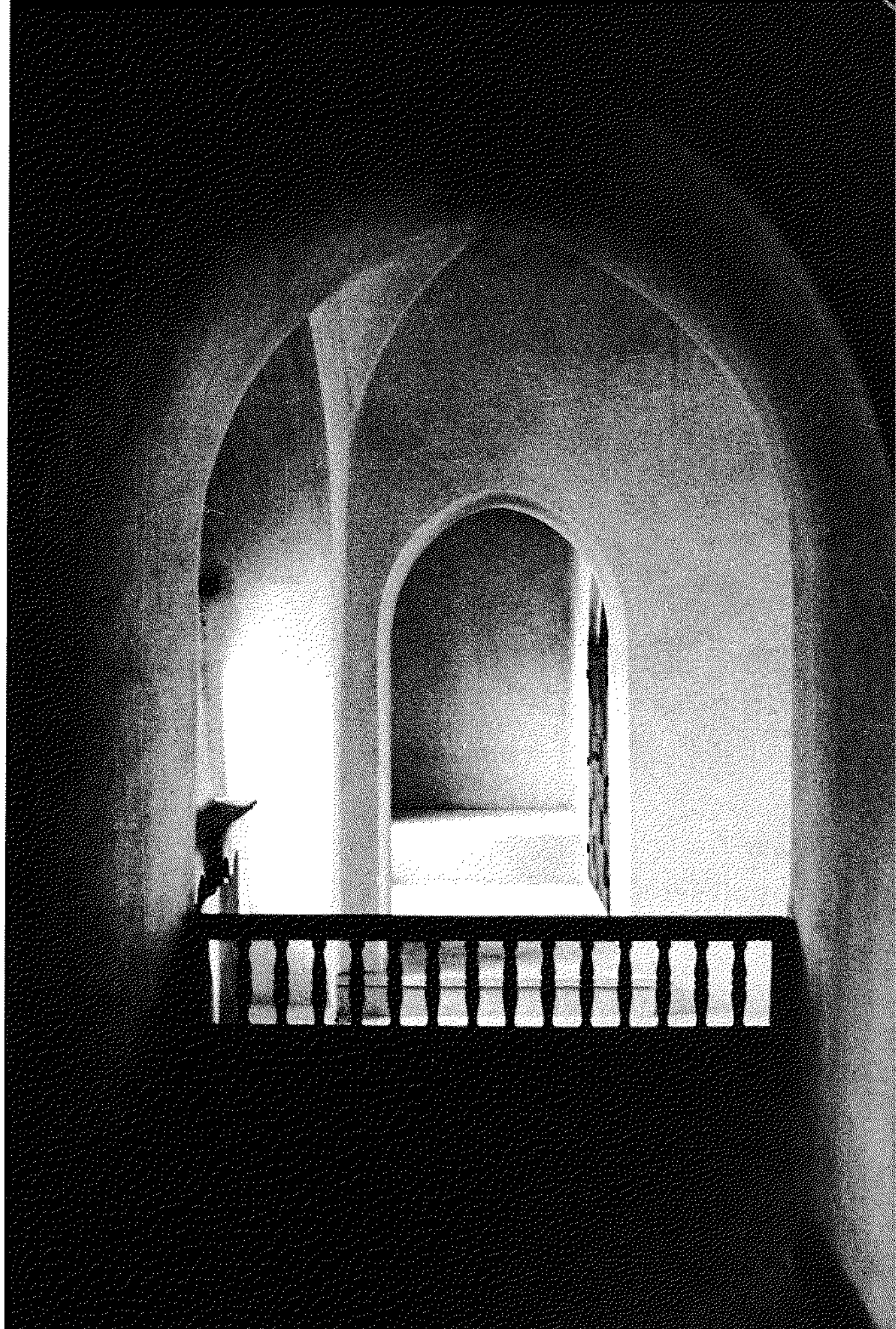


Plate 30 Transverse section of *dorka'a*.



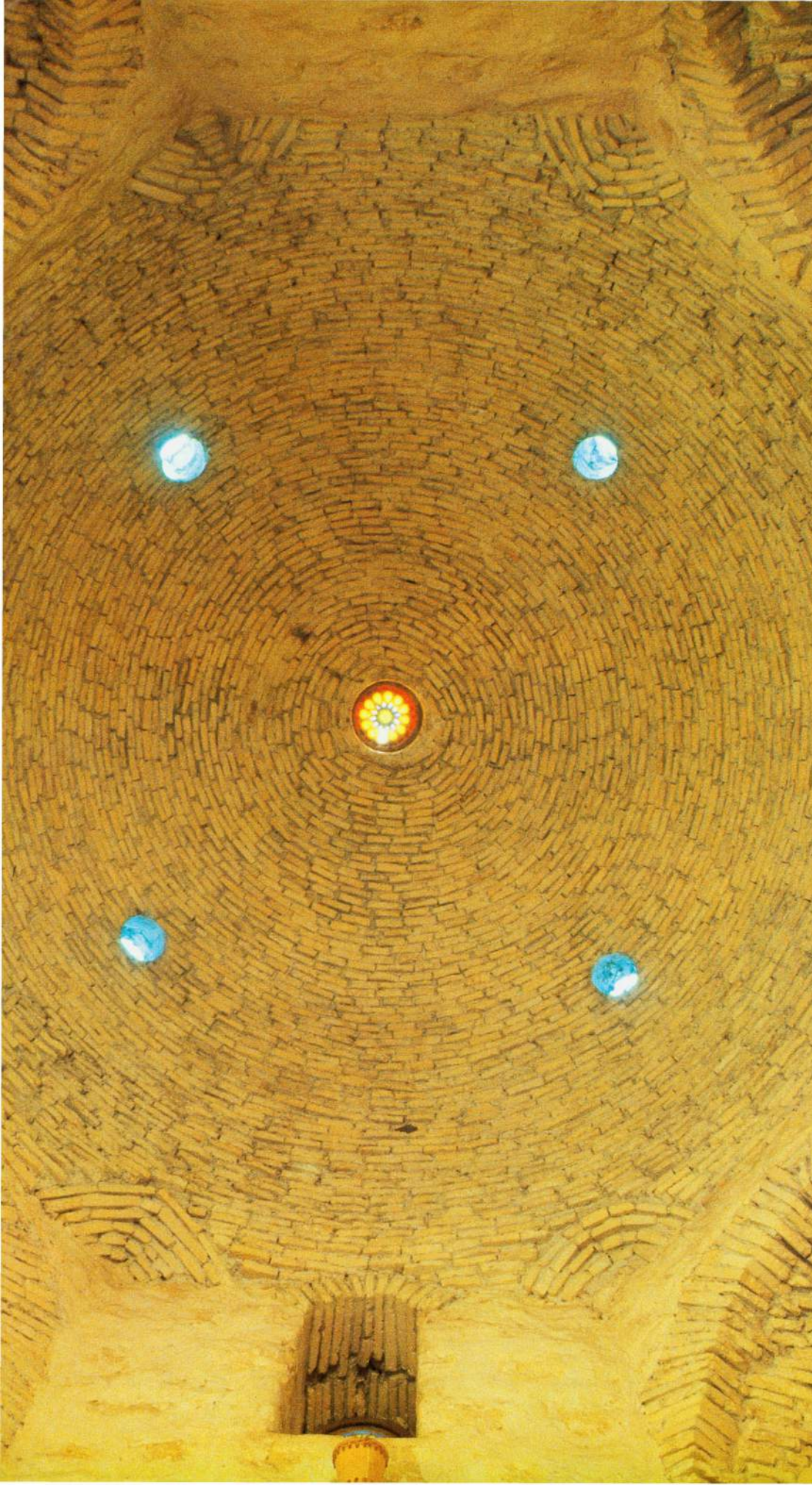


Plate 33 *Dorka'a dome.*

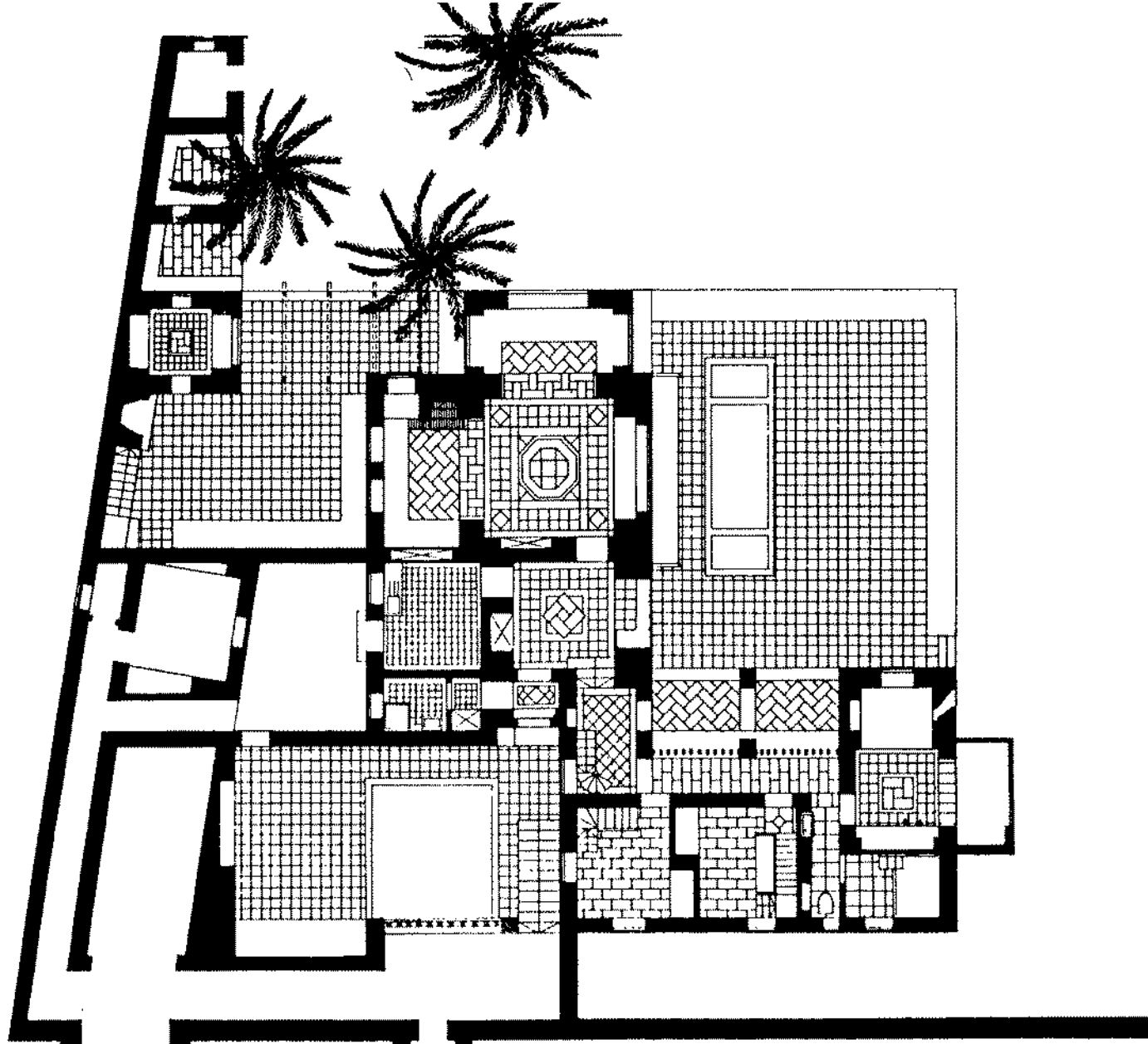


Plate 34 Plan, 1973.

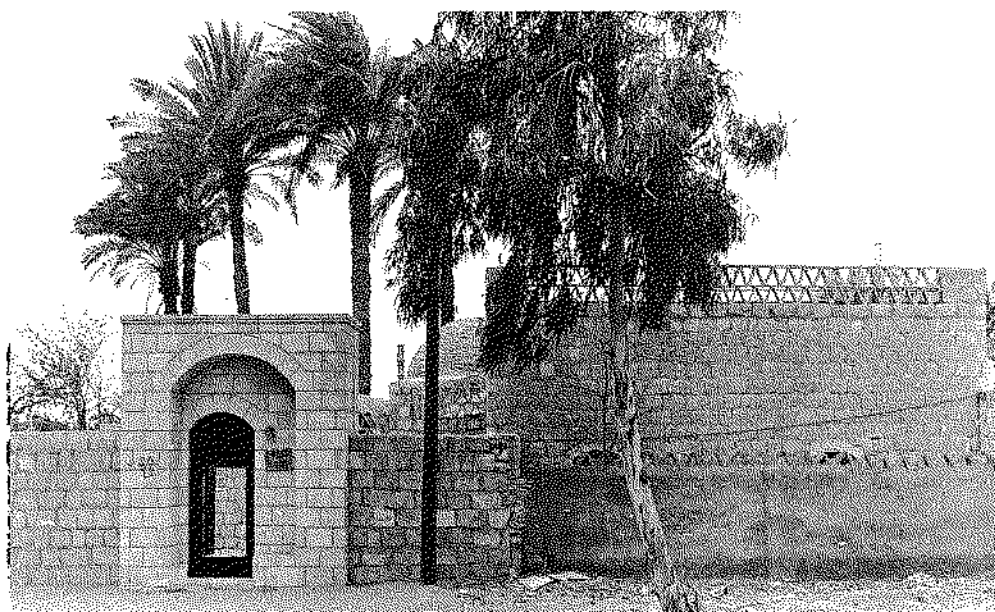


Plate 35 Portal at boundary wall.



Plate 36 Pavilion interior

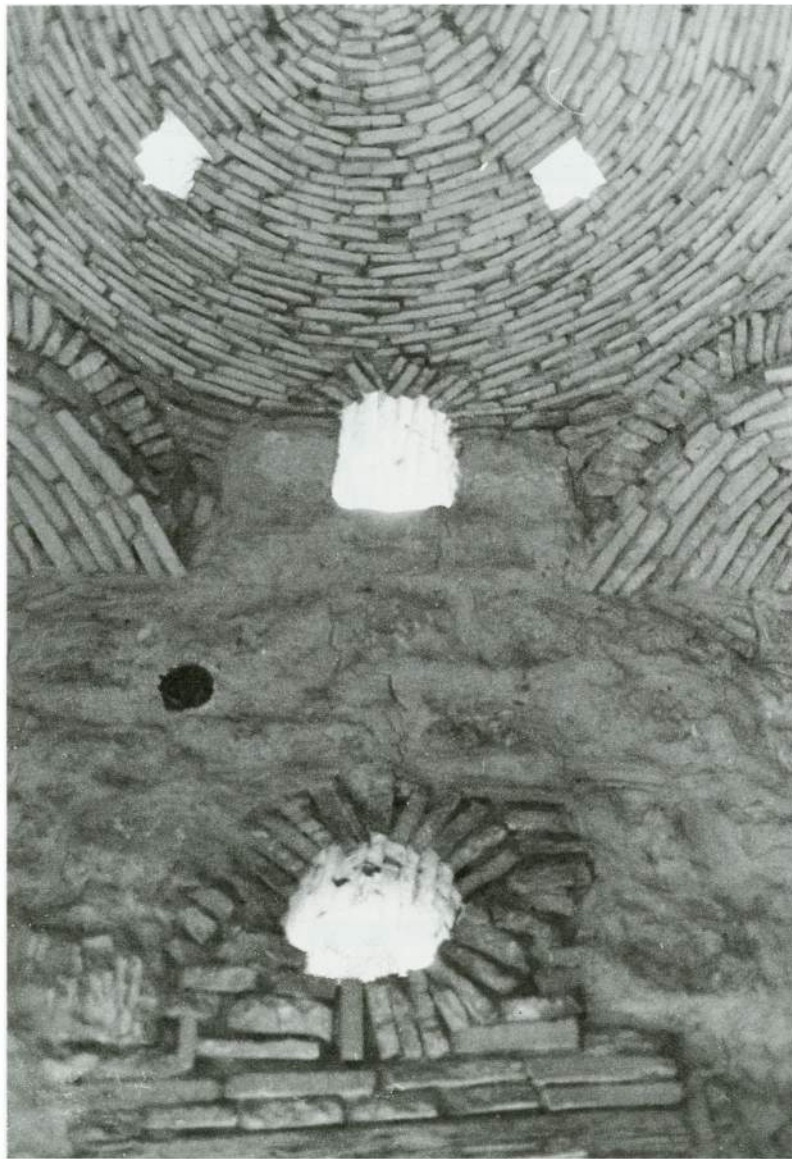


Plate 38 Pavilion interior



Plate 37 Pavilion interior



Plate 39 Entry courtyard.

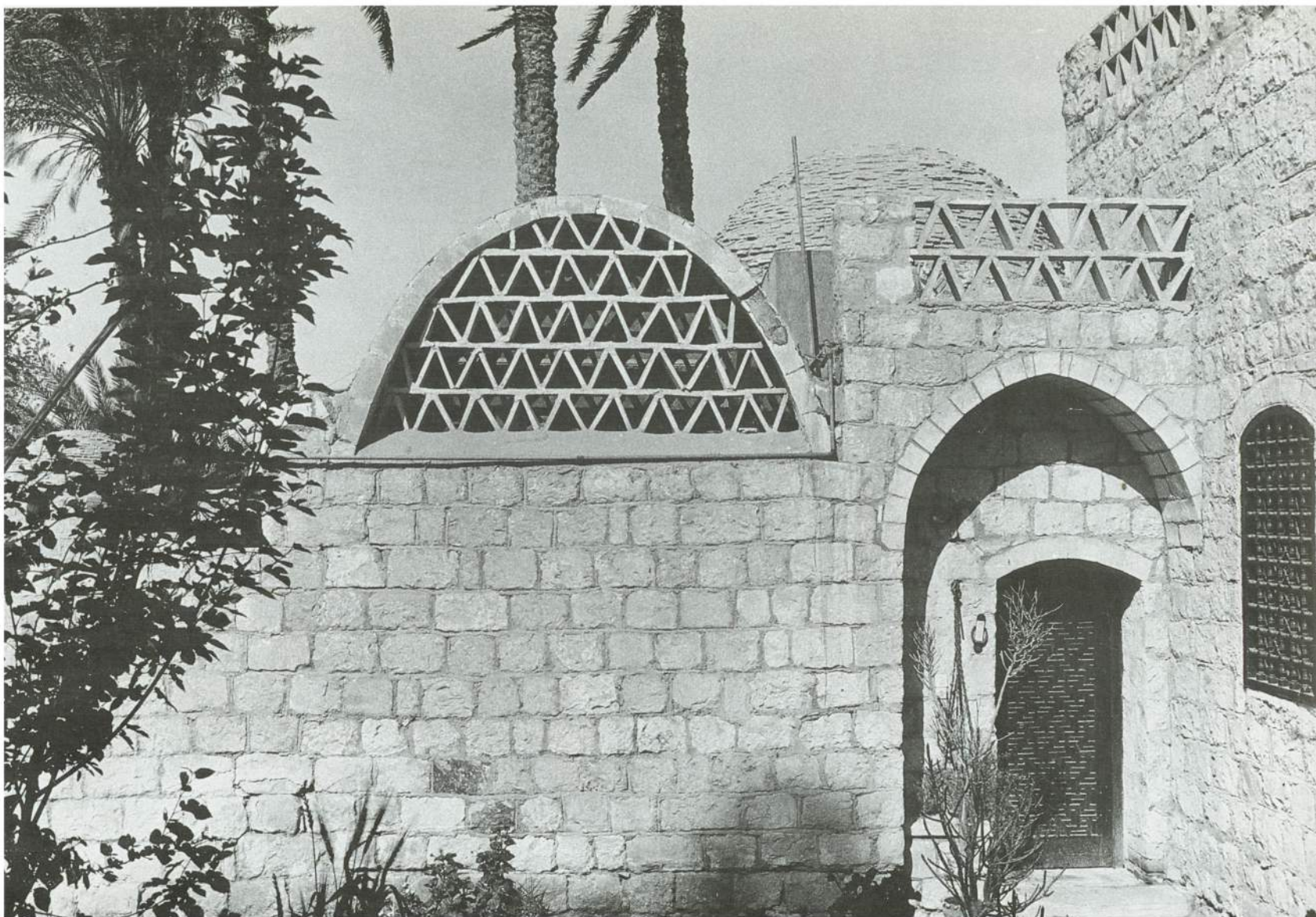


Plate 40 Portal to interior.



Plate 41 Massing viewed from the east.



Plate 42 Northeast facade of pavilion.



Plate 43 Roofscape.

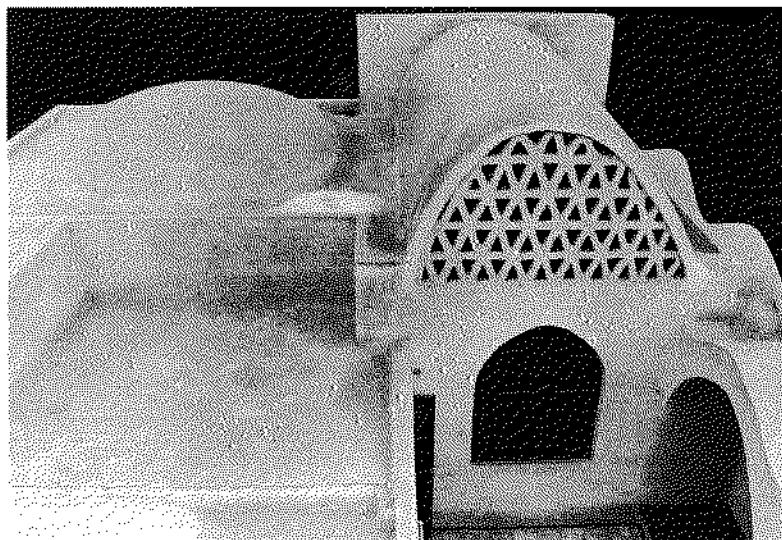


Plate 44 Solarium and roofscape.

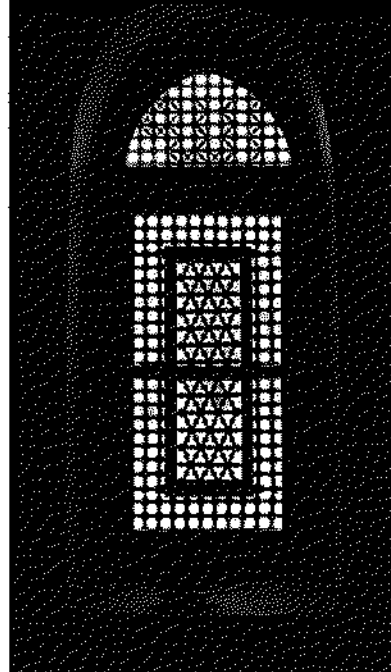


Plate 45 Bedroom window.

Plate 46 Partial southwest facade.



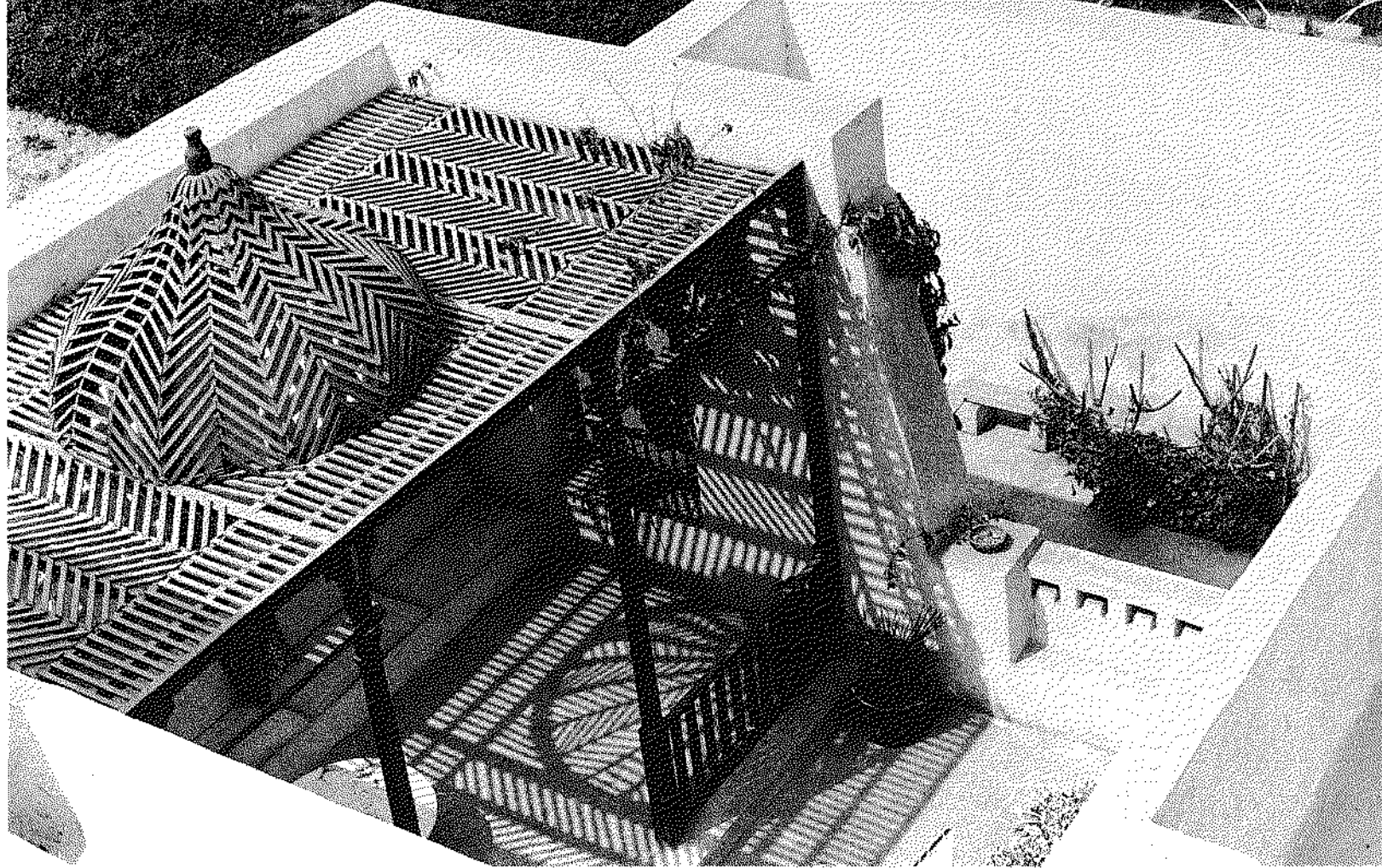


Plate 47 Upper and lower courtyards.

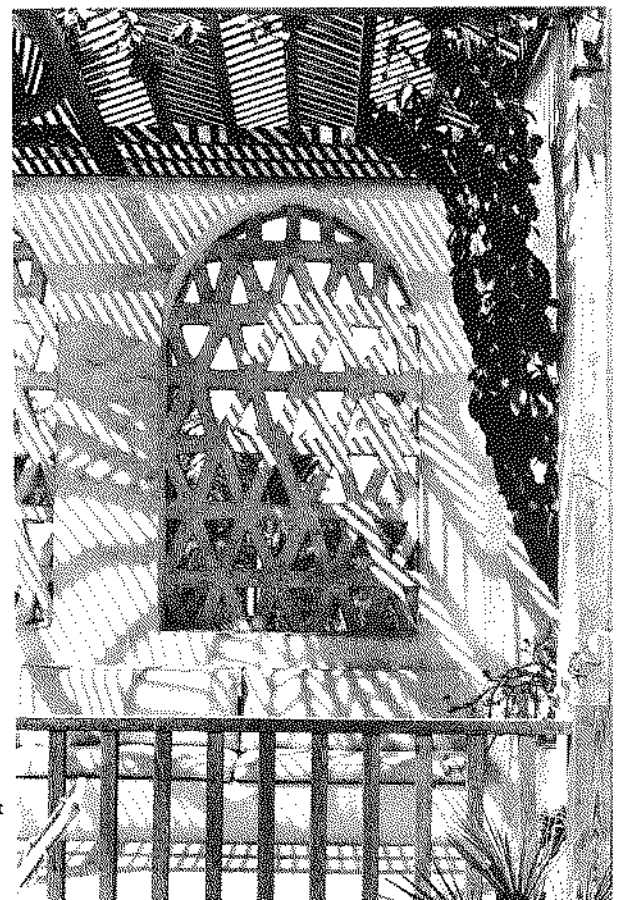


Plate 48 Lacy light

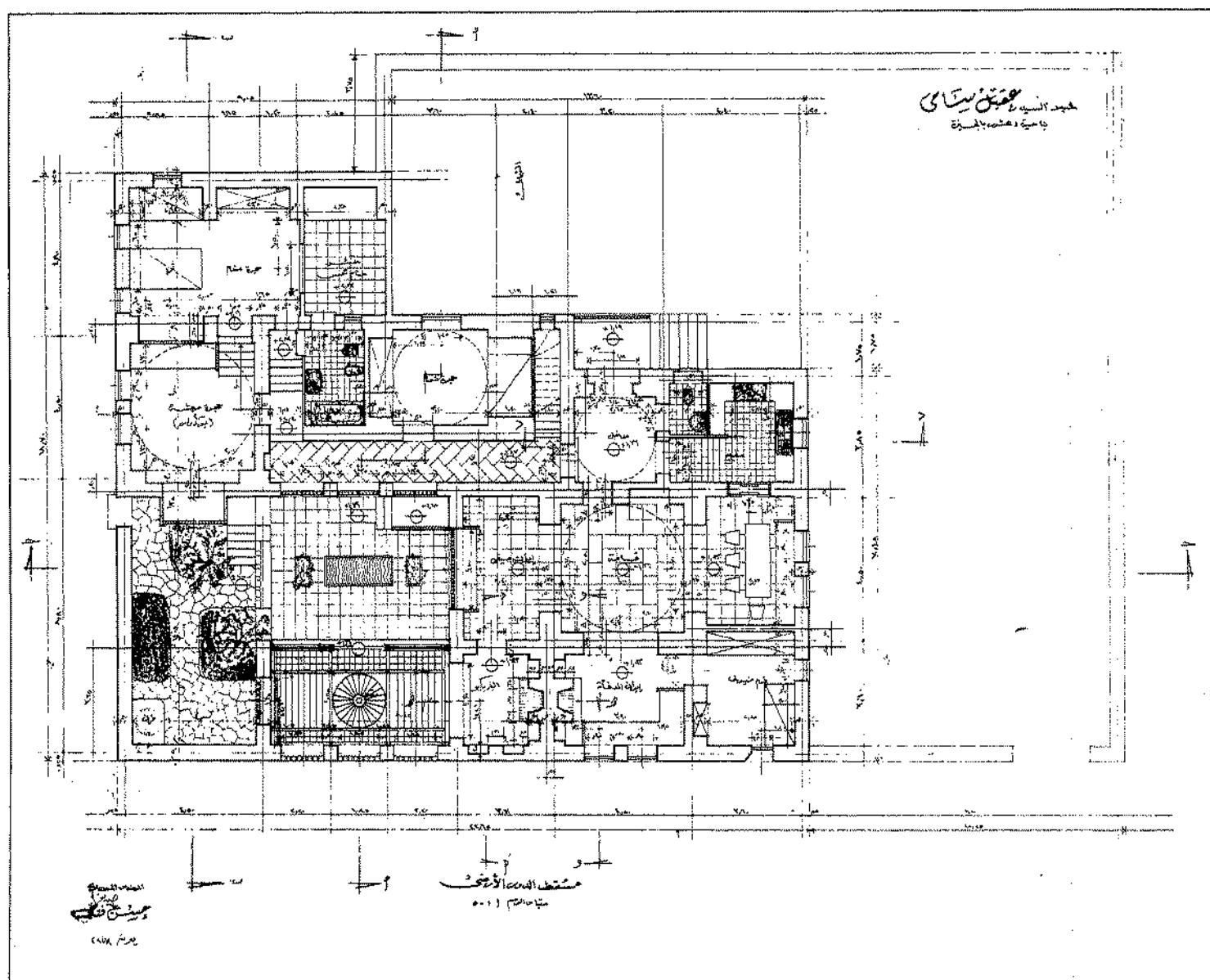


Plate 49 Plan. 1979.

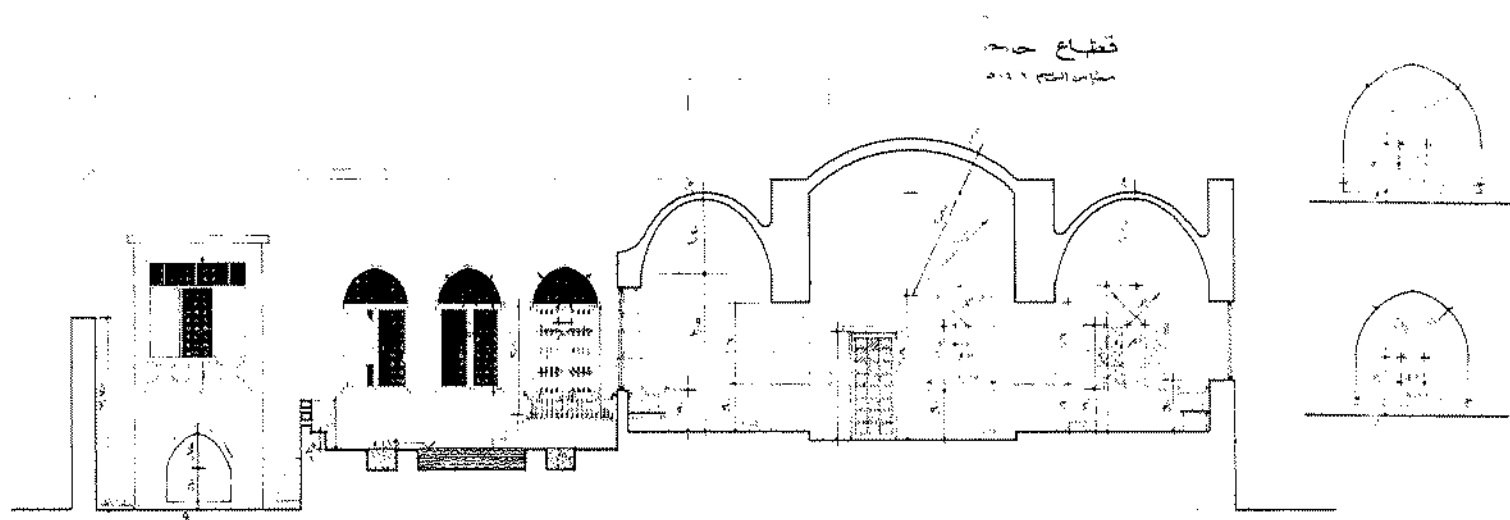


Plate 50 Longitudinal section.

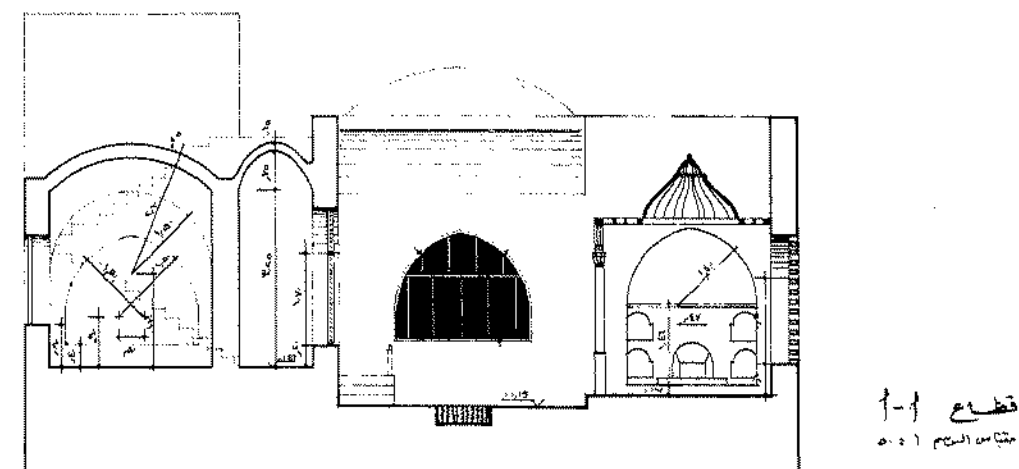


Plate 51 Transverse section.

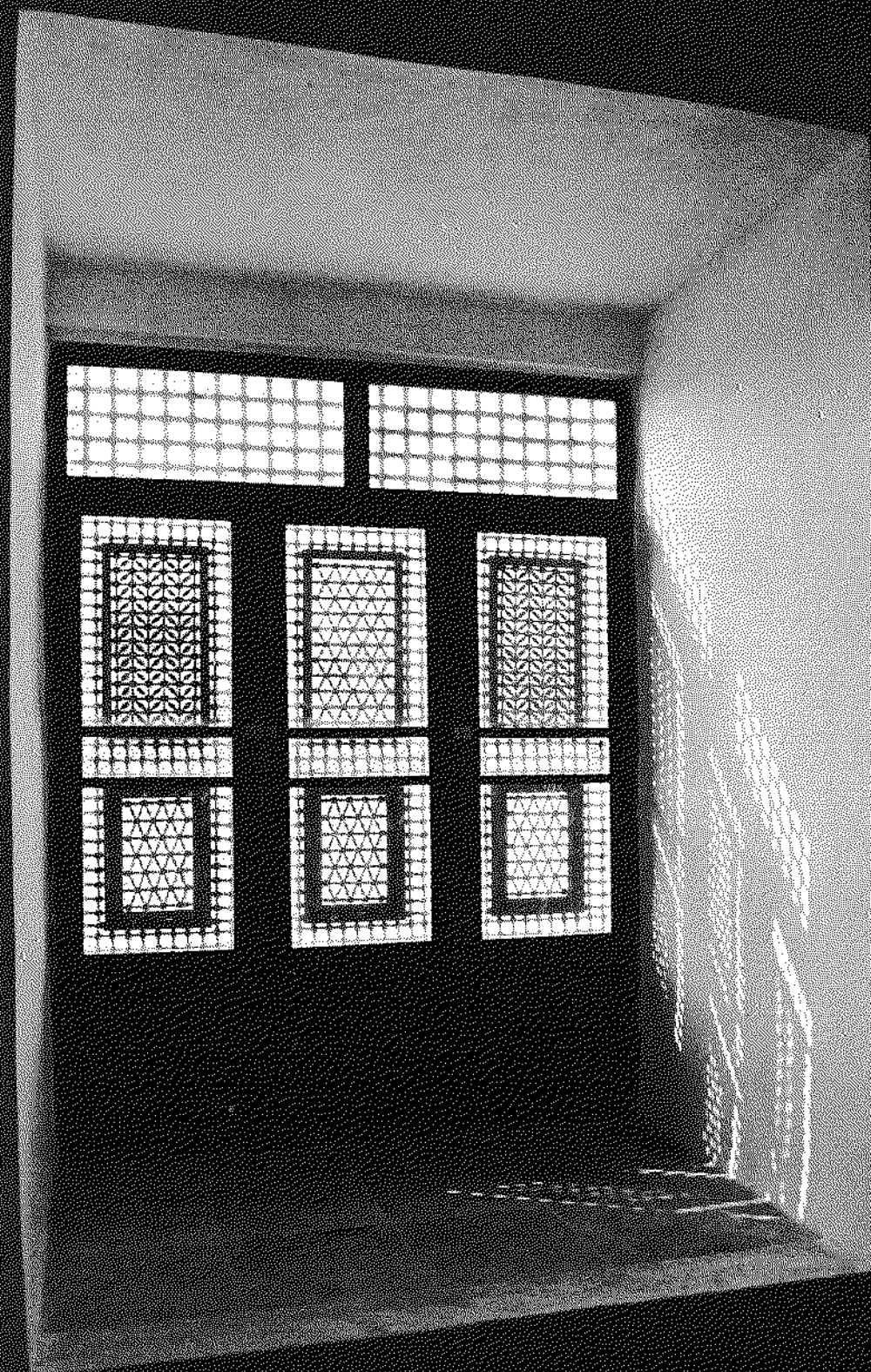


Plate 52 Oriel *mashrabiyya*
in master bedroom.



Plate 53 Massing viewed from the east.



Plate 54 Northwest facade.

Plate 55 Massing from southeast





Plate 56 Upper courtyard.



Plate 57 Southwest wall.

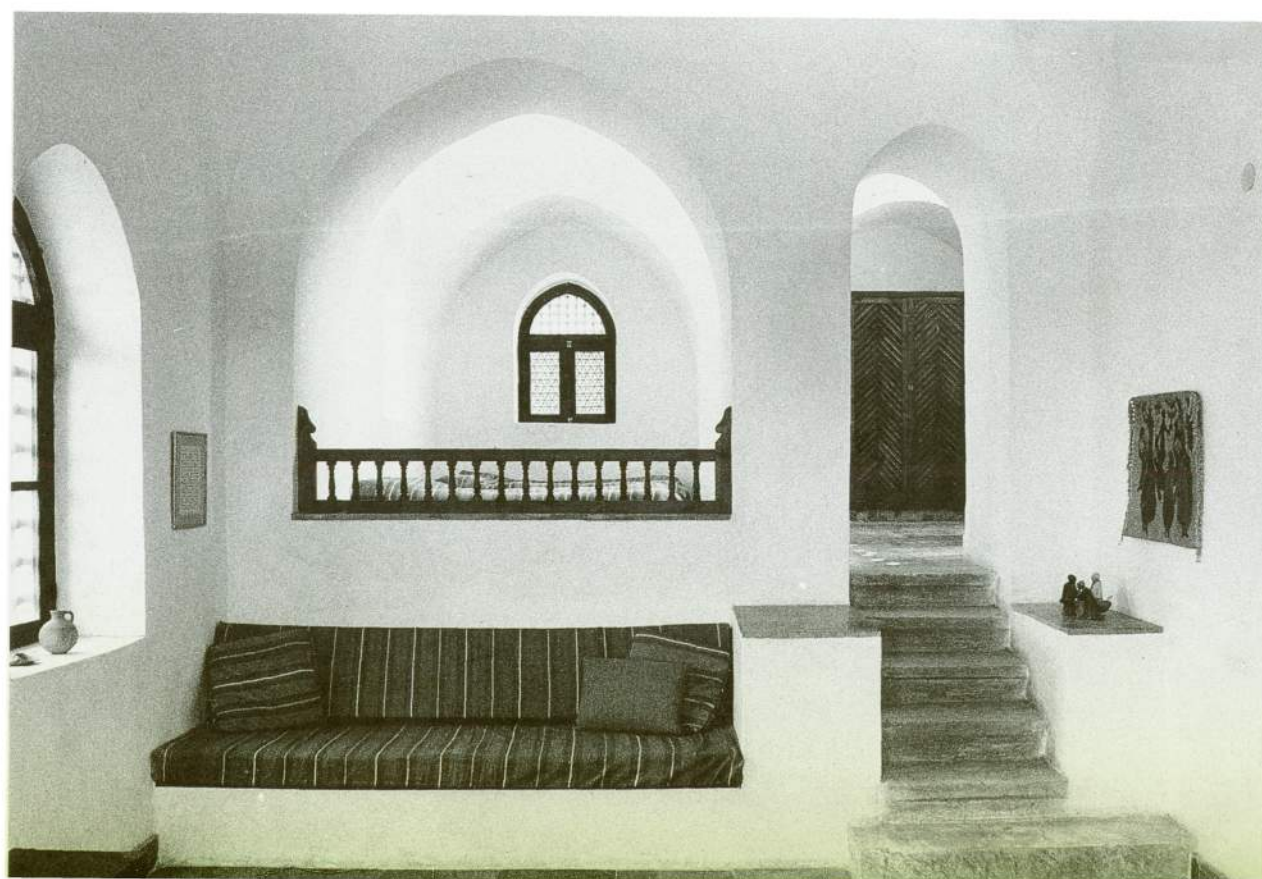


Plate 58
Master bedroom with sleeping
area under upper level vault.

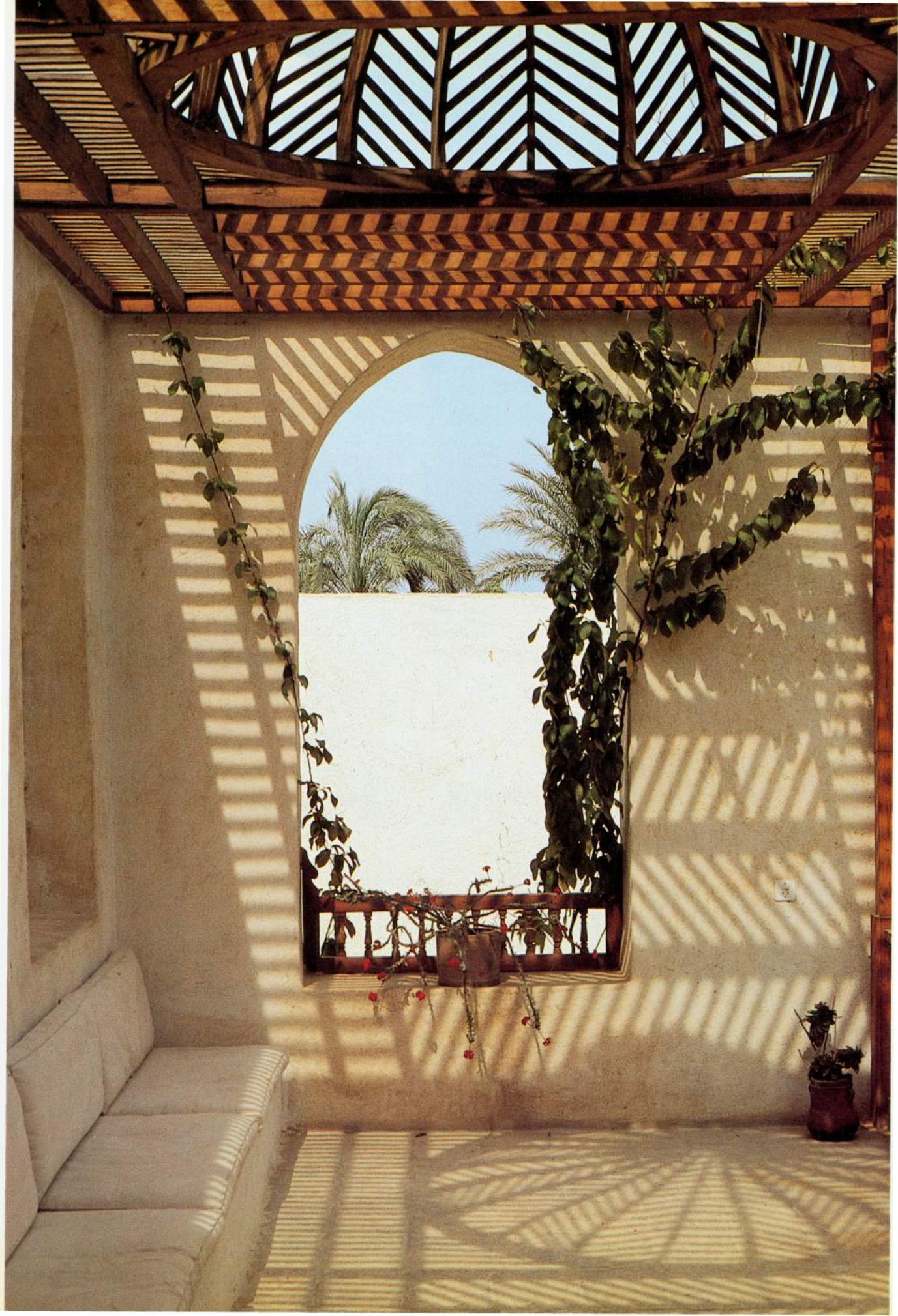


Plate 59
Within the courtyard
lattice.



Plate 60 Northeast courtyard wall.

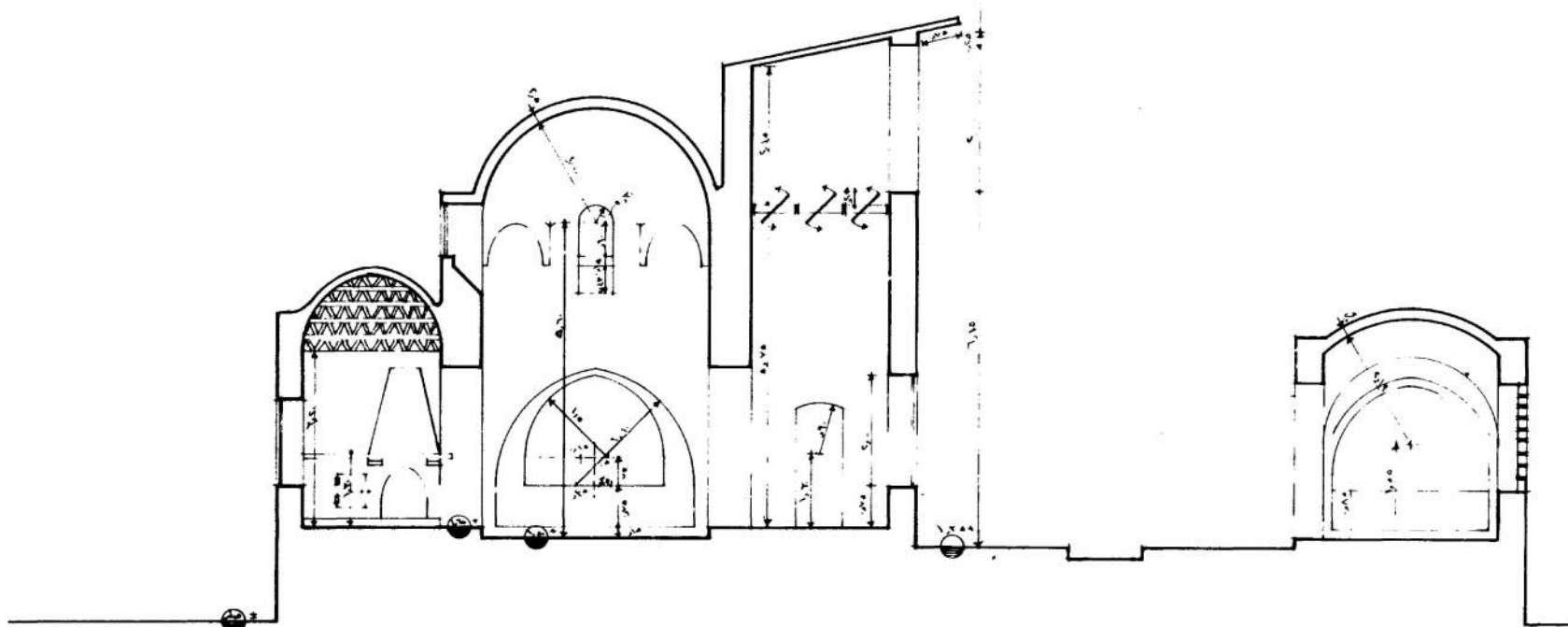


Plate 61 Section through *ka'a*.

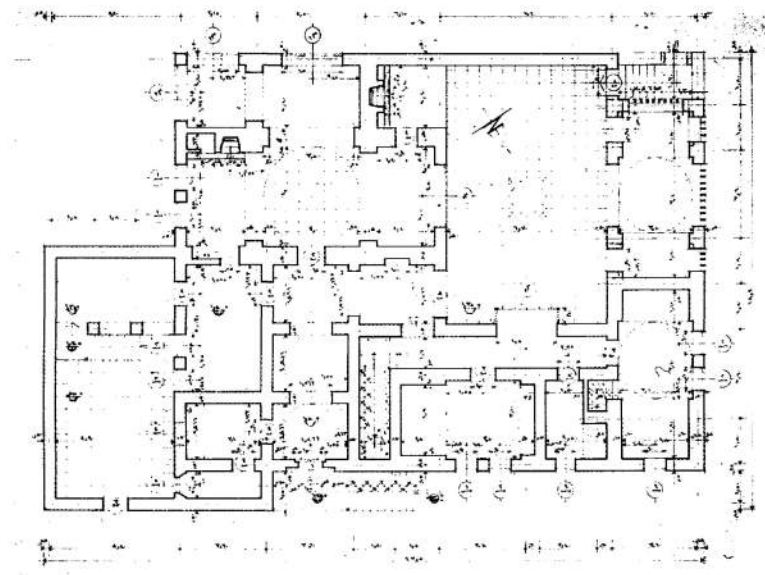


Plate 62 Ground level plan, 1981.

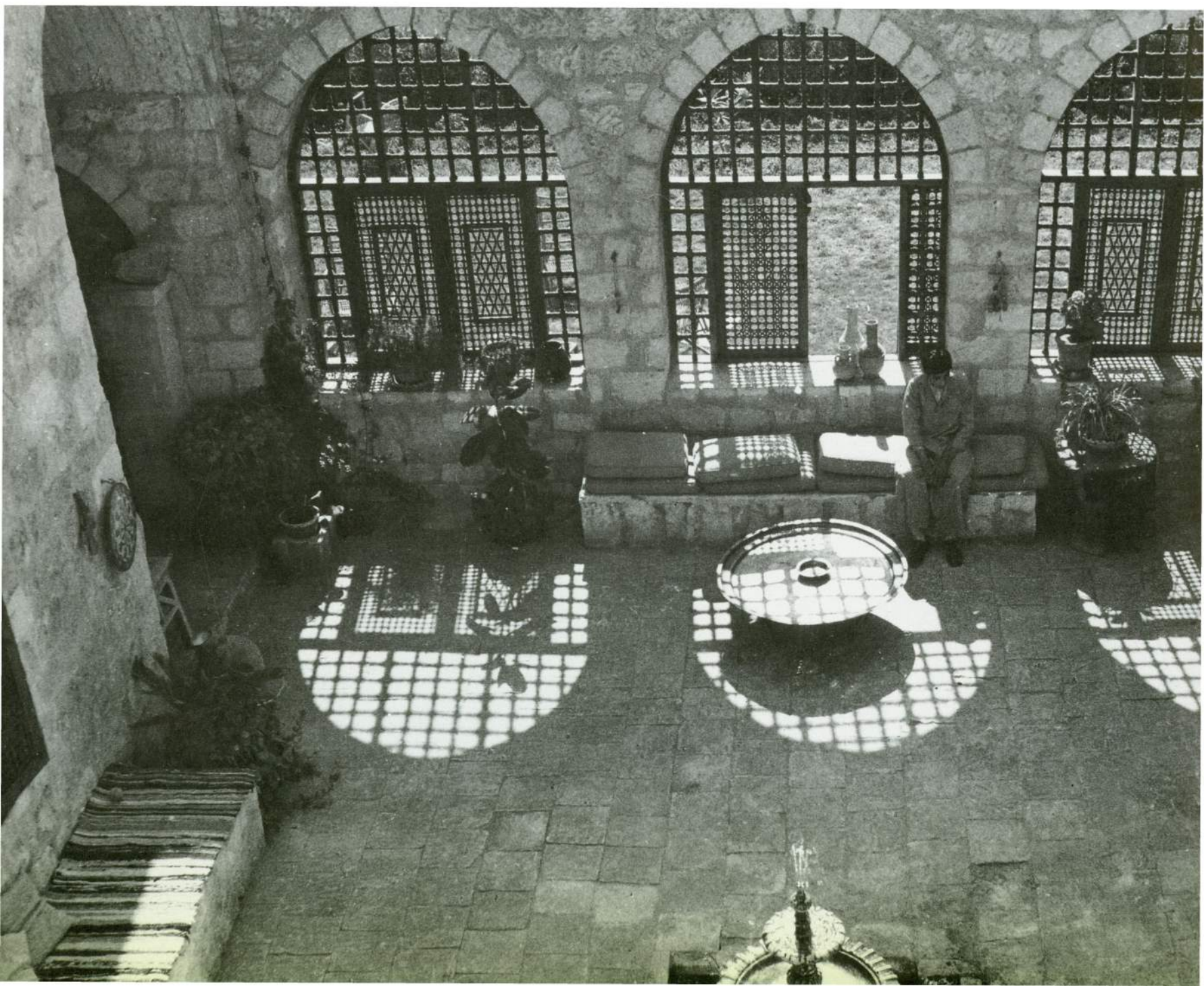


Plate 63 Massing facing courtyard.



Plate 64 Southwest facade.

Plate 66 Southwest courtyard.



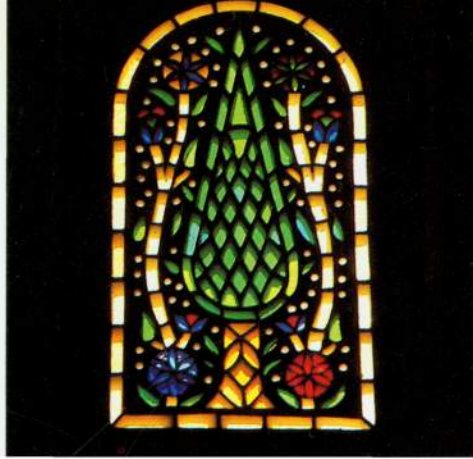


Plate 65 Stained glass window in *dorka'a* squinch.



Plate 67 Wood cabinet detail.



Plate 68 Exterior of *dorka'a* window.

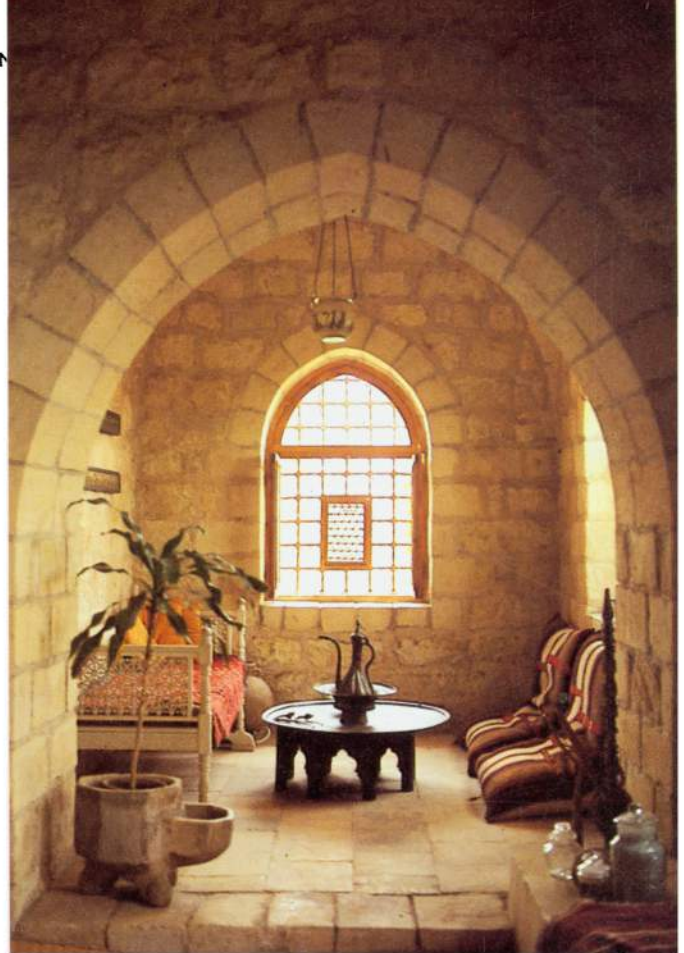


Plate 69 Domed alcove.

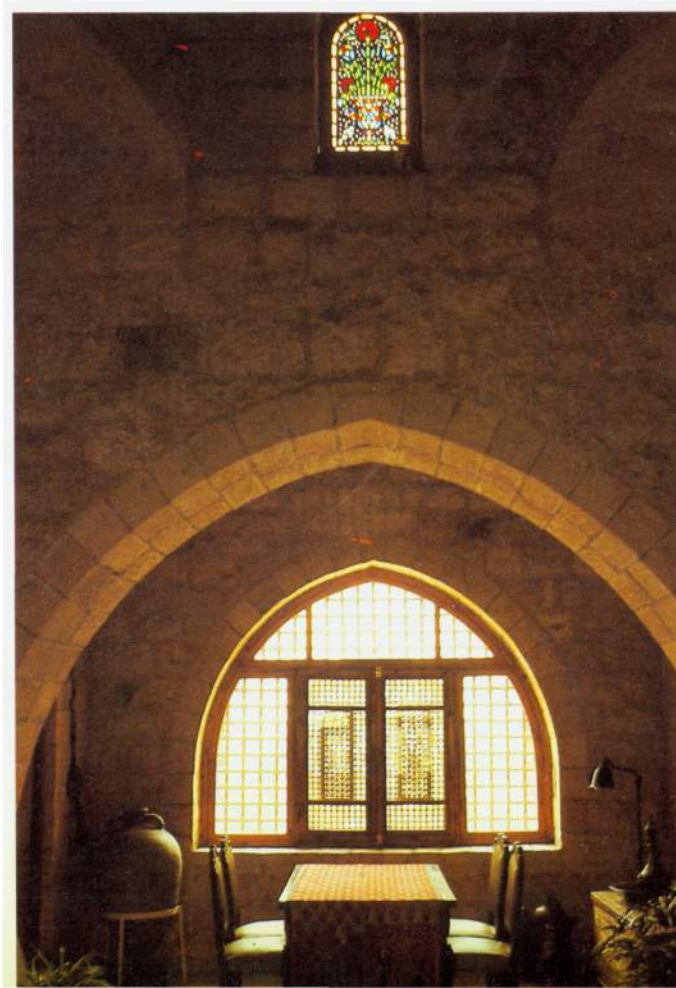


Plate 70 Dining iwan.

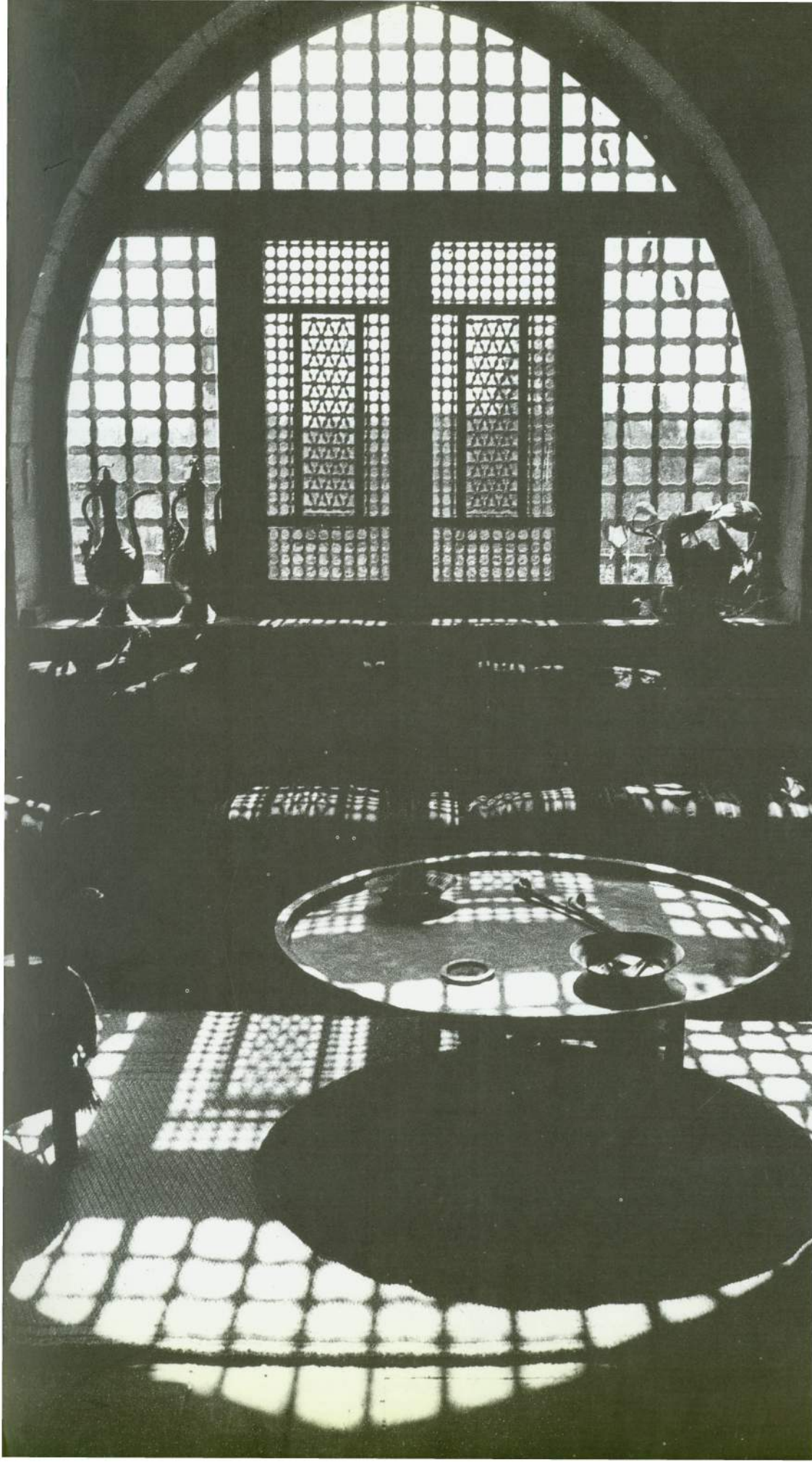


Plate 71 Corner detail with fireplace in southeast *iwan* of *ka'a*.

Plate 72 Southwest *iwan* of *ka'a*.

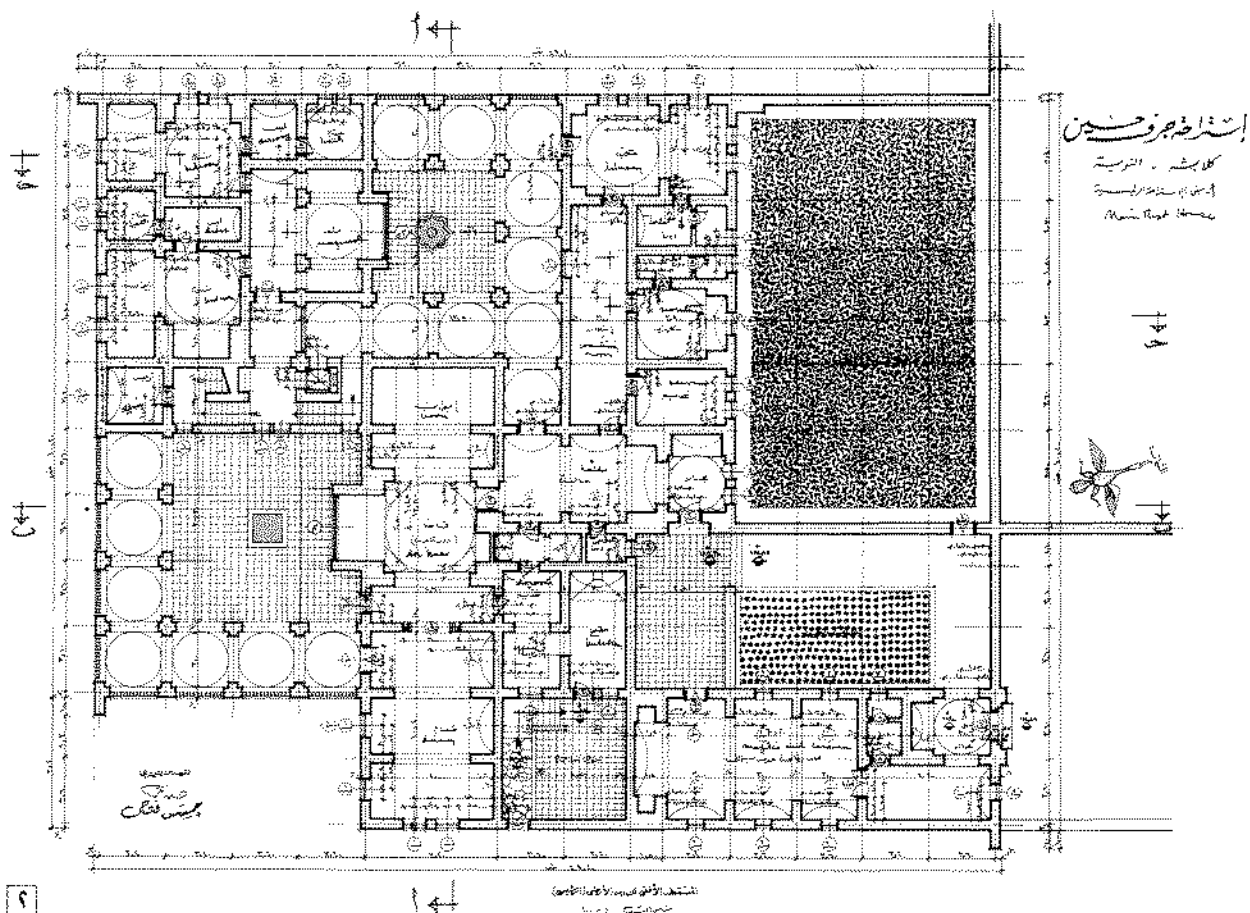


Plate 73 Ground level plan, 1981.

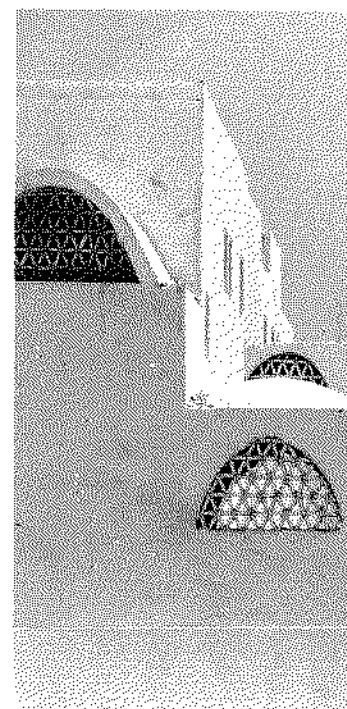


Plate 75 Facade detail.

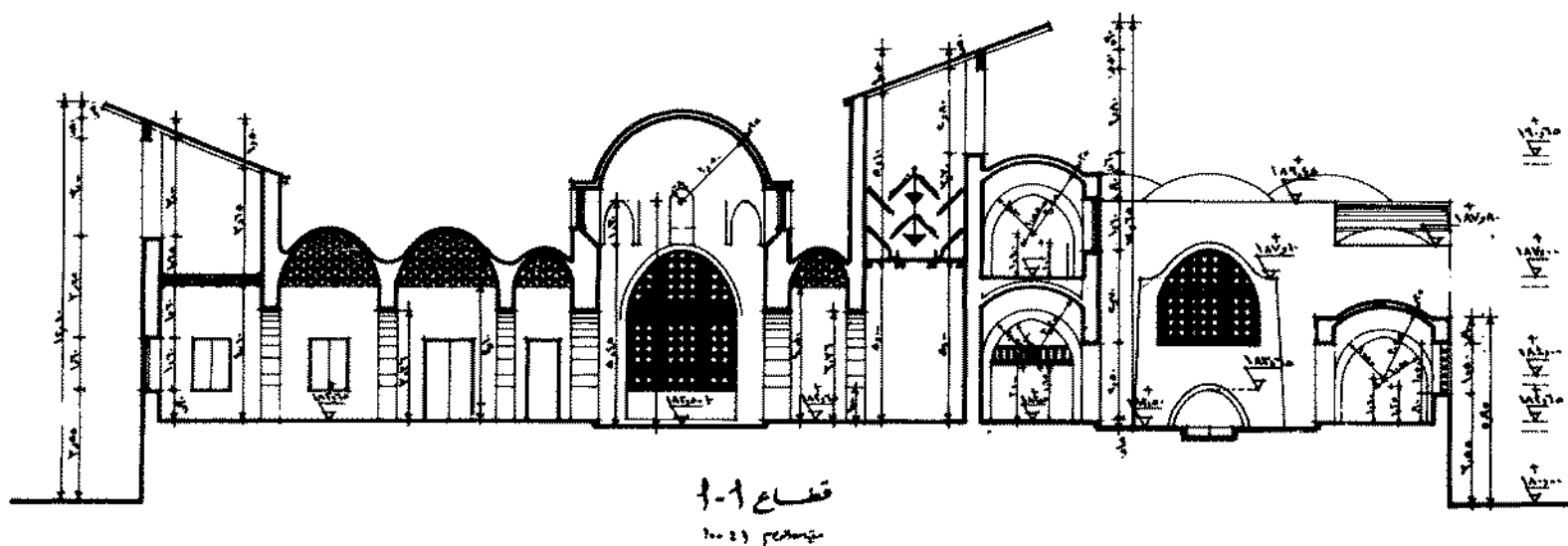


Plate 74 Longitudinal section through main hall.

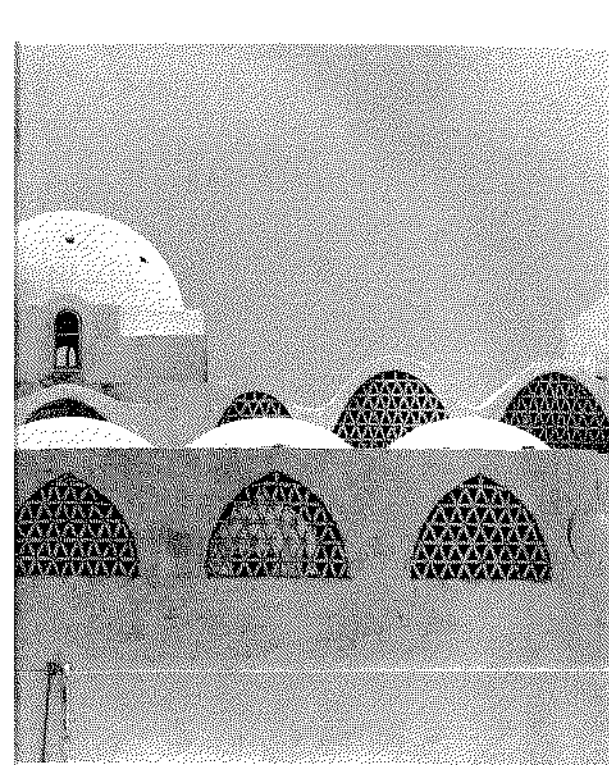


Plate 76 Corner detail.



Plate 77 West facade.



Plate 78 Massing at entrance.



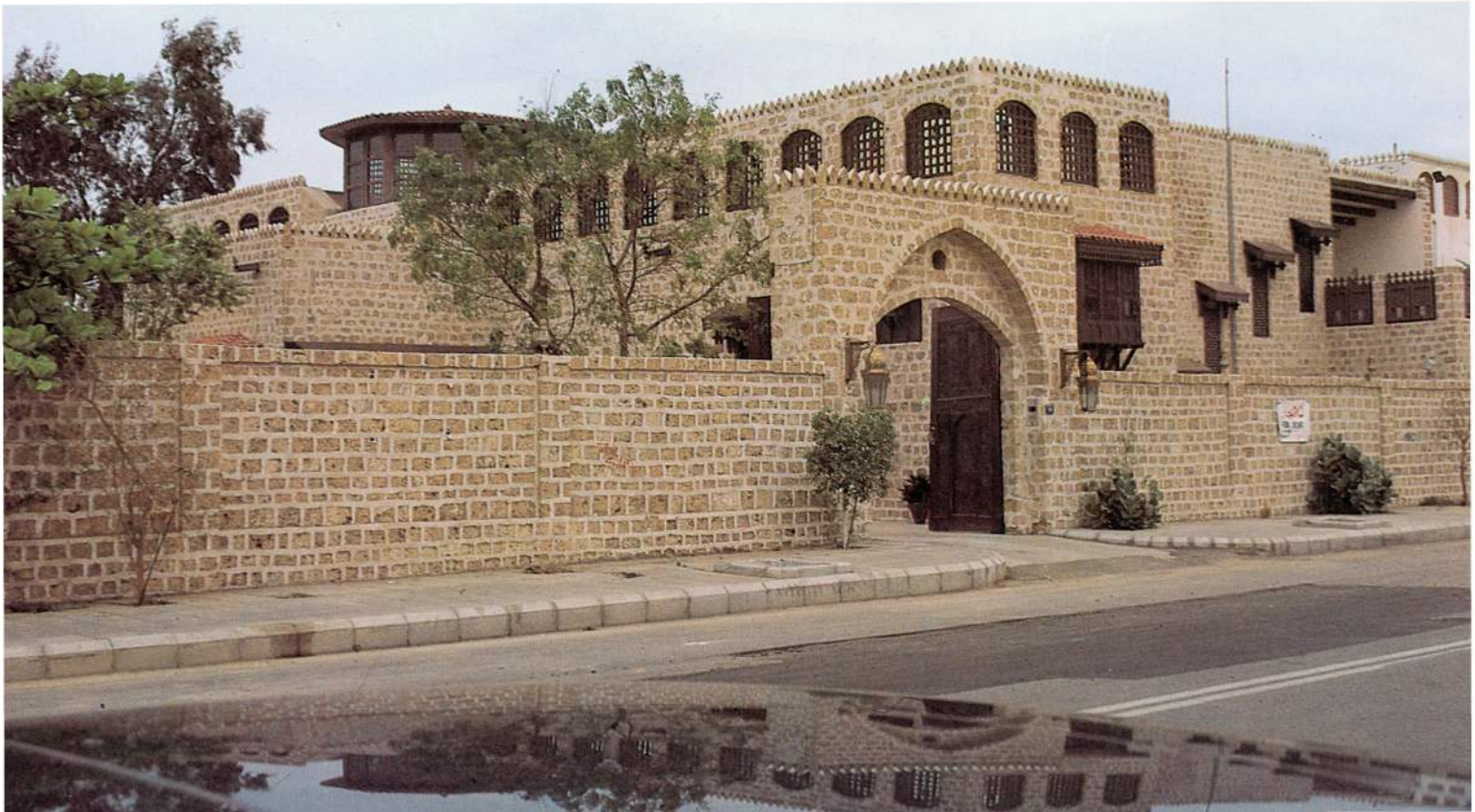


Plate 79 View of entrance.



Plate 80 Massing
from garden.

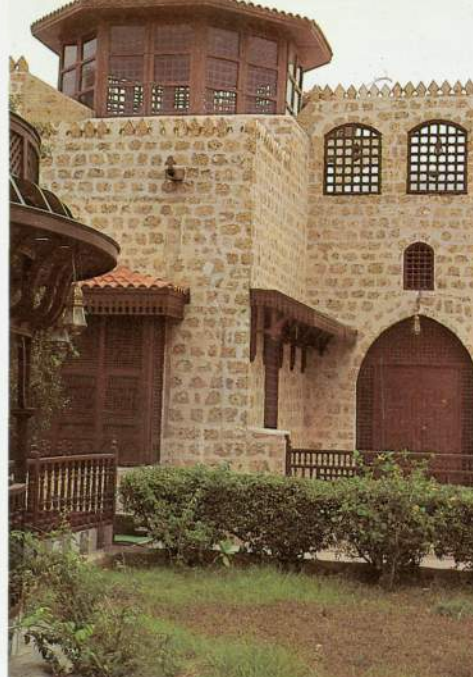


Plate 81 Entrance with open court on first floor.

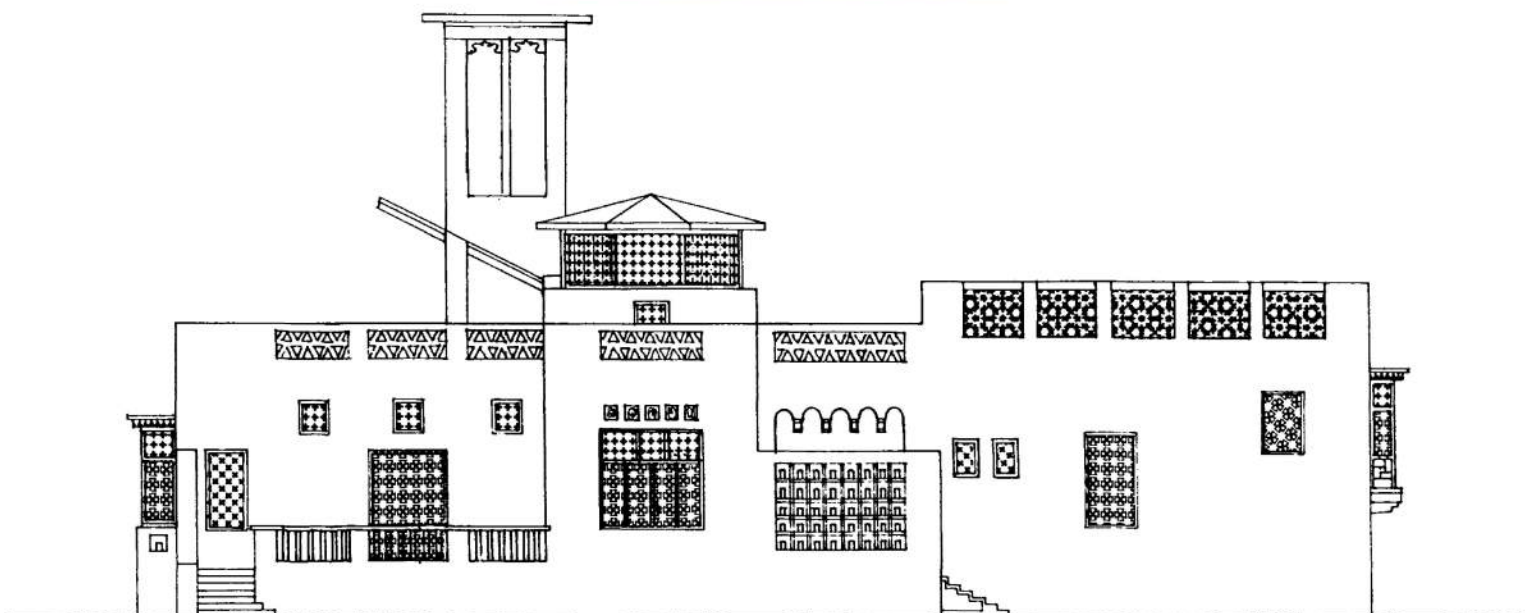


Plate 82
Entrance elevation and section.





Plate 83 Fountain in a small courtyard.



Plate 84 Library and passageway.



Plate 85 Typical window.

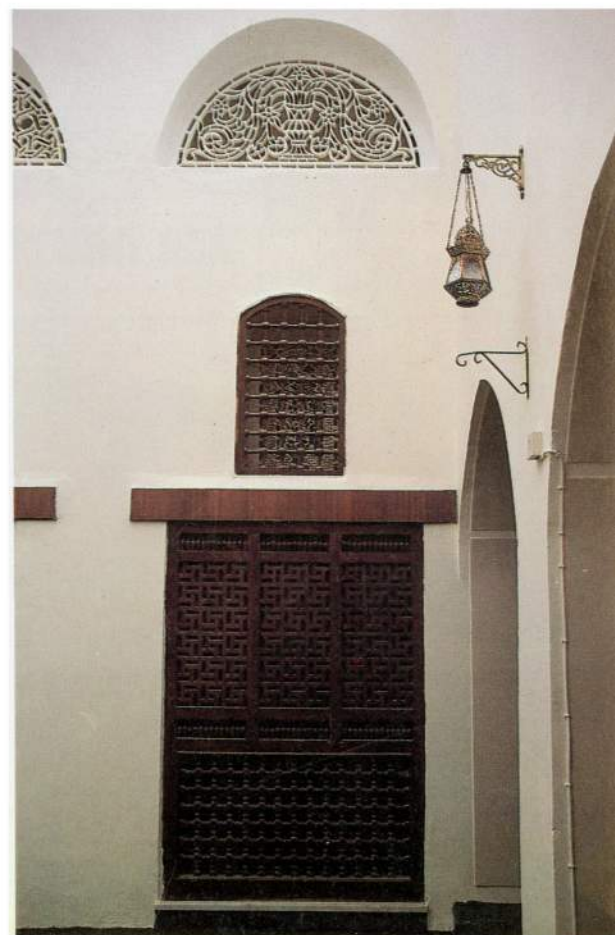


Plate 86 Mashrabiyya overlooking the small internal courtyard.



Plate 87 Garden pavilion

The Villages

IN HIS 1969 BOOK, *Architecture for the Poor*, (11) Fathy explains his planning theory and implementation strategy of New Gournia Village (plates 88-127). Old Gournia was a thriving community of five hamlets built along the hills in West Luxor, on the ancient cemetery of Thebes. The Gournii for generations had made their livelihood by tunneling into the tombs, plundering the contents and selling the artifacts on the black market. They built their houses in front of the tunnels to accord a certain degree of security to their operations. Determined to stop the tomb robbing, the Department of Antiquities engaged Fathy in 1946 to design and construct a new village for the relocation of the Gournii. From the onset, the project was plagued with difficulties. The Gournii, content with their living situation, resented the project and therefore were reluctant to cooperate. The Department of Antiquities and related governmental bodies put tremendous demands on the architect, but were themselves fickle in providing the resources they had agreed to commit. The final result was a partial realization of the master plan (plates 88, 89).

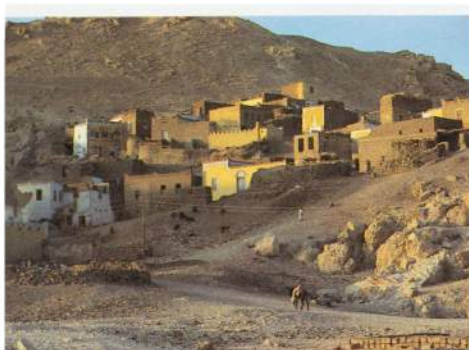
Originally planned for a population of 900 families, the completed project has a current population of approximately 130 families and covers one fifth of the original site. Although the real message of New Gournia lies with what was in fact built and how the community has developed, what remained unrealized is also worthy of note.

In reading the architect's ideas for the village, one is struck by its mixture of social realism and utopian vision. A subsistence rural economy, widespread disease, illiteracy and the dynamics of traditional family and opposing clan structures are all recognized and factored into a formula that essayed to make the Gournii into a harmonious social structure, freed from abject poverty, disease and illiteracy, devoted to the pursuit of folk art, and framed by an appropriate and relevant architectural setting. In the end, many of the social services, such as the dispensary and women's social centre, and the *hamam* (public bath), were neither provided nor facilitated, nor was all the proposed housing constructed. Several of the community buildings – the crafts exhibition hall, village hall and the *khan* (market) – though built, have never supported their intended functions and are now used as housing or workshop space. The utilization process and apparent absence of demand by the villagers (the 130 families) for additional public buildings suggests that their essential and relevant institutional needs were only: a school, a mosque, and streets that accommodate social interaction.

In the design of New Gournia as constructed, there is an architectural hierarchy

(11) *Architecture for the Poor* was originally published in 1969 under the title *Gournia: A Tale of Two Villages*, in a limited edition, by the Ministry of Culture, Cairo.

to the village which is easiest read by the system of open spaces. The main route to the village interior widens to create a kind of public square around which many of the community functions were to take place including prayer, shopping and entertainment housed by the mosque, *khan* and theater respectively. The housing is planned in irregular allotments. These allotments force variation in house plans while shaping a network of angular streets that turn on themselves to create broken vistas (plate 95). Much of the lives of households are played out in these small, quiet streets that serve as extensions to the home as workplaces (plate 99), and as play areas for children (plate 101). Informal socializing occurs in the streets (plate 96) or under the Byzantine domes that cover the village water wells (there is no running water in individual houses).



xix. Old Gurna.

The smallest unit in the hierarchy of open space is the multipurpose courtyard incorporated into each house (plate 106). In a sense, the village design began with this spatial unit since Fathy conceived the plan in experiential terms whereby a man is led through an ascending scale of spaces that begin with privacy of his small courtyard, leading to the semi-public neighbourhood street, to the larger avenue, then the village square and finally the open fields of the Nile Valley. This particular engineering of space replicates unplanned villages in the region that are built on agricultural land. Consequently, the experience of walking through New Gurna is not unlike that of neighbouring settlements. It is therefore understandable that the population of New Gurna, drawn from the surrounding area, feels a sense of identity and congeniality with the place. Over the more than forty years of occupancy, the plan form of public and private spaces has remained virtually unaltered by the Gournii – this is doubly remarkable when the inherent flexibility of mud brick is considered. The one exception is the encroachment of animal pens in the street.

Animal husbandry is a vital link in the family economy. The custom of living in close quarters with livestock is universal among Egypt's rural poor. Though concerned about the sanitary problems that arise when people and animals share common spaces, Fathy recognized the economic imperative and designed space for animals on the ground level of each house, but separated bedrooms by putting them on a level above (plate 92). Over the years, enterprising households whose financial situations have advanced have annexed land for goat and cattle pens in front of their houses (ill. xx). In addition to attesting to the economic vitality of the community, these pens demonstrate the flexibility of mud brick architecture to serve the evolving needs of its inhabitants – an important factor for any building scheme intended to foster economic development.

These needs embrace architectural style as well as basic facility. The Old Gournii had developed a refined facade architecture characterized by rectilinear silhouettes that scoop up at the corners of parapet walls (ills. xviii, xix). The parapets themselves are accentuated with a textured line that visually functions like a cornice. Windows in these houses are small in ratio to the overall facade surface area, and are trabeated. Fathy gave the housing in New Gournia a different visual image (ill. xxi), one that shared more with the village of Gharb Aswan than Old Gournia. With time, the households of New Gournia have redefined their facades by reducing the area of windows and adding cresting parapets (plate 92). The architect has expressed dismay at the changes. (12) One might, however, argue that the ability of the housing to be personalized, in this instance “vernacularized”, is an overall design strength.

Fathy provides a basic structural architecture that carries with it a simplified universally appealing image. This is taken up by the villagers as a framework for place-specific stylization. This layering of visual content makes villages and cities humane. As Fathy has stated:

“If you want a flower, you don’t try to make it with bits of paper and glue, but you devote your labour and intelligence instead to preparing the ground, then you put a seed in and let it grow. In the same way, to make use of the natural desire of the villager to build, we must apply ourselves to preparing the ground by creating an atmosphere or social climate in which building will flourish, and we must not waste our energy on the construction of buildings which, however smart or striking they may be, will be as sterile and unproductive as artificial flowers.” (13)

The extent to which an architect can predetermine the social climate of a community is debatable. Certainly in his choice of building materials and techniques and the spatial organization, Fathy “prepared the ground” for New Gournia. The economic and institutional framework he planned had a lesser effect on the social climate that emerged. Craft industries were to play a major role in bolstering the village economy. Two buildings were built for folk art – the crafts exhibition hall and *kahn* – but no industry was founded. Instead, to compliment their income from agriculture, the New Gournii participate in service industries connected with Luxor’s lucrative tourist trade. (Siting the village with a favorable adjacency to the tourist traffic was a conscious planning tactic of Fathy’s.) The grounds of the open market are used for grain and livestock trade, but with no one in charge of maintenance, the facility suffers from decay (plate 90). No shopkeepers operate in the *khan*: however, small

(12) From an interview with the author in March, 1983.

(13) *Architecture for the Poor*, p. 119.



xx. Old Gurna.

merchandise stalls have been set up in the buildings that form the main West Luxor road. The Village Theatre (plates 110-117) has not generated a revival in the folk arts. Unused for decades, it was recently restored and is now controlled by the government and closed to the villagers. The one school designed by Fathy that was built is dilapidated (plate 108). No longer in use, a concrete building has taken its place.

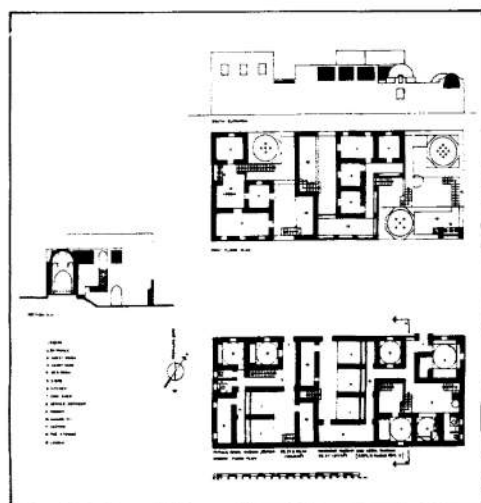
In contrast, the Village Mosque has been perfectly realized (plates 118-127). The monumental structure uses light to create a variety of atmospheres for worship. The religious followers that gather at the mosque are attentive to the building's maintenance.

New Gurna's identity is related to similar villages in the region, but it possesses a character all its own and if there are shortcomings, they are measured in the gap between intention and realization. The planning intentions far exceeded the rural population's frame of social reference while overestimating the community's ability to upgrade itself. Though community life in rural Egypt is undergoing transition, people have not yet broken fundamental ties with a traditional lifestyle. The architectural and institutional structures the community deemed necessary for that lifestyle came alive.

A year after the construction of New Gurna, Fathy participated in the design of a rural community on a large private estate in the delta. The estate, Lu'luat al-Sahara (The Pearl of the Sahara) was owned by Hafiz Afifi-Pasha. Acting with an unusual sense of social concern for the time, the landowner undertook a rebuilding program for the peasants attached to the farm. The plan included the provision of new housing as well as social services, e.g. an elementary school, hospital and clinic. All the medical facilities, grain storage, pigeon towers and animal shelters, as well as most of the new housing, was sited and constructed before Fathy began. He was to add six duplex houses, a *madrasa* (school) and a new mosque to the compound (plates 128-134).

The housing was developed around a central courtyard. The individual house forms and the technology of these buildings harked back to New Gurna. The mosque and attached *madrasa* gave rise to a more original solution. The dual courtyard plan was realized with limestone and fired brick, sensitively scaled and appropriately picturesque in its massing. This project was the closest Fathy came to realizing a second community scheme until 1967.

Several community-orientated projects did, however, follow Lu'luat al-



xxi. Typical housing, New Gurna, c.1948.



xxii. New Gurna, 1983. Facade showing infilled and extended wall.

Sahara: the Ceramics Factory at Garagos in 1955; the Primary School at Fares in 1957 (plates 135-141); and the Training Centre for the Desert Development and Reclamation Bureau at Kharga in 1962 (plates 142 and 144). Each of these projects yielded one complex within an existing community, but each project fell short of the potential Hassan Bey had built into it.

In the case of the Ceramics Factory, the project Fathy designed was not built according to plan. Though he can be credited for convincing the clients to use the mud brick technology he advocated, their deviation from his plan cost them the more complete architectural realization of a spatial composition of a high aesthetic and functional order that Fathy had designed.

The Primary School at Fares was commissioned through the Ministry of Education after they had seen the boys' school at New Gurna. Their intention in commissioning the project was to develop a prototype for rural schools to be built throughout Egypt. As Fathy was eager to serve such needs, and had long argued that his approach was eminently replicable, the project appeared to be promising. Was it possible that the government was ready for a regional approach that utilized local materials and labour and yielded buildings that were inexpensive to construct and maintain? The school at Fares was indeed successful on those grounds. Unfortunately, government officials misrepresented the project, claiming that it cost considerably more to build than it actually had. This opposition was a terrible blow to the architect and contributed to his decision to leave Egypt in 1957 and practice in Athens, with the well-known architectural and planning firm of Doxiades.

A second school was constructed, in Idfu, that followed the Fares plan. Like the prototype, it has been well maintained and highly regarded by its users. No other schools were built on the Fares model.

The Training Centre for the Desert Development and Reclamation Bureau was designed in 1962 after Fathy returned to Egypt from Greece. The centre was to be the focus of technical training for the government's relocation efforts in the New Valley. In this project, Fathy again attempted a revival of mud brick technology. The building served its users well for many years, but, due to poor siting by the client, the building suffered damage through water infiltration. In recent years, the government has been systematically demolishing the complex and replacing it with reinforced concrete structures.

Fathy's first major opportunity for realizing a village plan since New Gurna

came on the heels of the training centre. The government was establishing a series of new towns in the Kharga Oasis under the auspices of the Egyptian Administration of Desert Development. New communities were being sited above major groundwater sources. A master plan had been drawn up and all the new settlements had been constructed except for the new village of Bariz.

New Bariz was to be the last link in the long chain of new villages with the government seat of Kharga at the centre and the ancient oasis town of Bariz at its remote extremity. Of all the new sites, New Bariz had the largest reservoir of water. The government's master plan therefore called for a central village and six satellite hamlets. Fathy was to design the central village. The village was to accommodate 250 families who would farm the area immediately around the town. It would also serve as the administrative and commercial centre for the hamlets and old Bariz (plates 145-173).



xxiii. Routine maintenance. Balat, the Kharga Oasis.

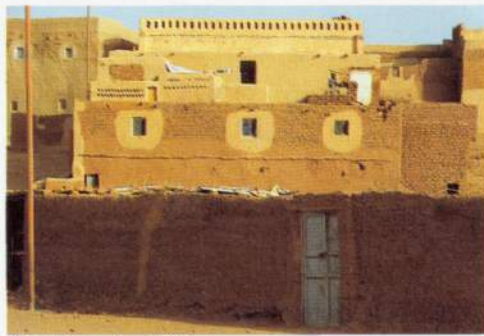
In preparation for the design, Fathy studied the long-established towns in the western oasis. In response to the severe desert climate, people had built their homes close together so that the streets fell in shade – in some towns, such as Balat, houses actually spanned the streets with their mud brick and palm wood structures (ills. xxiii, xxiv). Fathy integrated this technique into the neighbourhood schemes of his design (plate 145). Other formal features of the buildings he designed were also responses to climatic constraints: the use of domestic wind-catchers, roof terraces, shaded arcades, etc. (plates 154 and 157). Most stunning in form and sophisticated in function are the market's wind towers (plate 155). Based on the venturi effect, these towers combine a scientific principle with the forces of nature to temper the ground level shops for human comfort and reduce the temperature in the areas beneath to make a cool storage for perishables.

But the market lies idle in the desert. So do the villas, administrative offices, bus station, and automobile construction centre. The construction of the town was well underway when the 1967 war between Egypt and Israel broke out. Orders were given to stop construction, and work was never resumed: as the agricultural plan for that region was altered, there was no longer a need for such a settlement.

New Bariz, like New Gourni, was an experiment in a community-orientated *process* of building as well as an aesthetic investigation by the architect. In the process, the human resources of a community would be enriched through the

transfer of skills, and the buildings produced would be more satisfying for the user through their direct involvement in the detailing of a design. Coincidentally, this process, referred to by Fathy as aided self-help or cooperative building, promised to put new housing within the economic grasp of the rural poor. In explaining the cooperative system attempted at New Bariz, Fathy stated in a paper presented to the Society of Egyptian Architects:

“With reference to the statement of the U.N.’s Economic Commission for Africa about the insurmountable obstacle – the policy that housing must normally be paid for in cash – we can say that the only alternative is to revert to the traditional cooperative system by finding means to make it work under the non-traditional conditions prevailing nowadays. The snag in cooperative building is that one man cannot build a house, but ten men can build ten houses easily.



xxiv. House facade. Balat.

“For cooperatives, families have to know each other. Studies have shown that beyond a certain number, anonymity is introduced leading to abstraction of the individual and hindering cooperation. Experience shows that, beyond thirty families, there is confusion. So if the village community be broken up into neighbourhoods of 20 families each, it will be possible for the neighbourhood to build its houses easily.

“One team of two masons and four labourers can build a house in 45 days, and if the neighbourhood of 20 families can raise a group of workers of 24 young men and girls, i.e., 4 teams of masons, the neighbourhood can be built easily in about 8 months. It is by releasing the productive potential of the peasants by cooperation that we can have the only answer to the economic obstacle.

“In the past, every village had its own skilled labourers and masons who were integrated into the social and the economic web of the community. They were guided by age-old traditions in the design and construction. Today, these traditions do not exist any more in most peasant societies and it is implicit that we secure the assistance of the specialized architects to revive the lost expertise and traditions among the peasants until a new tradition is established. Training on building techniques, especially the vault and dome construction for roofing, is one of the first things to do.

“The best way of training the villagers in building construction is to train them while they are working on a project as helpers, usually called in-service training.

“A training course has been devised and actually tried in the Gournia Village Project. By this system, one master mason had trained 46 boys from among these masons’ helpers who mastered all the operations that go into the construction of every element in the

house: walls, arches, vaults, domes, stairs, etc . . . , in 3 months only. By now, they have become 80, seeing the benefits of the craft they taught one another in their village by themselves."

Earlier in that paper, Fathy articulated a humanistic factor resulting from an owner-builder system:

"Unity in variety and not in uniformity."

And to enlarge on this theme:

"The architecture of a house, its location in the village and its size are all expressions of the personality of the owner and the social status of his family. The house is, in fact, the portrait of its owner with which he faces the community.

"In Nature, no two men are alike. Even if they are twins and physically identical, they will differ in their dreams. The architecture of the house emerges from the dream; this is why in villages built by their inhabitants we will find no two houses identical.

"This variety grew naturally as men designed and built their many thousands of dwellings through the millenia. But when the architect is faced with the job of designing a thousand houses at one time, rather than dream for the thousand whom he must shelter, he designs one house and puts three zeroes to its right, denying creativity to himself and humanity to man. As if he were a portraitist with a thousand commissions and painted only one picture and made nine hundred and ninety nine photocopies. But the architect has at his command the prosaic stuff of dreams. He can consider the family size, the wealth, the social status, the profession, the climate, and at last, the hopes and aspirations of those he shall house. As he cannot hold a thousand individuals in his mind at one time, let him begin with the comprehensible, with a handful of people or a natural group of families which will bring the design within his power. Once he is dealing with a manageable group, of say 20 to 30 families, then the desired variety will naturally and logically follow in the housing.

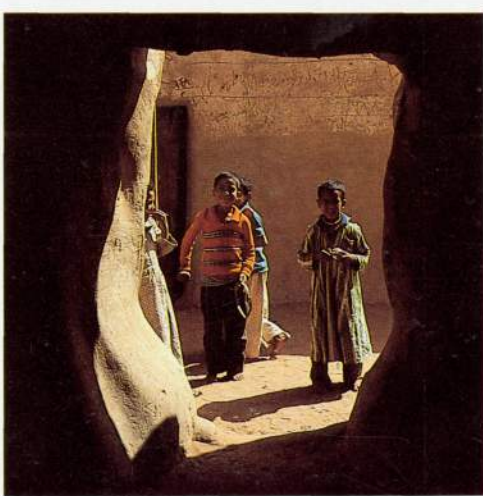
"Compartmenting the village into such neighbourhoods will bring it to the human scale. At the same time this could allow for the creation of closer relationships and breed cooperation and concern within the group. This is a prerequisite to the workability of the owner-builder system (the only realistic solution to the problem of housing the poor)." (14)

(14) Hassan Fathy, "Bariz Case Study", (unpublished, 1977).

The problem of providing rural housing is acute; Fathy's proposed solution are, from the outside, credible; realizations have not been generally forthcoming. Why? Surely not for lack of enthusiasm on the part of the architect. For decades Fathy has campaigned as a writer and public speaker for an architecture more nearly tried to the best interests of the poor. He has lobbied the powers-that-be in the public sector to adopt policies that recognize the technological framework he advocates. And, he has attempted to cultivate a younger generation of architects to advance his approach. His message is for Egypt, but it is also for every region of the world struggling to develop against the forces of abject poverty.

Could there be a critical element missing in his framework that prevented his social-orientated projects from being widely replicated? Fathy had developed his architecture of private houses by seeing many designs realized. Had he been given more public support for community projects, then too, he may have refined or evolved a self-sustaining solution. Others see the basic reason his projects have not been replicated, as institutional: land tenure, public services and utilities, and finance.

Ironically, the one community scheme Fathy designed that has been self generating was done for the Dar al Islam Foundation in New Mexico in the United States (plates 174-178): or perhaps it is not so ironical. The plan shares much in common with Fathy's other designs; however, the American community is well educated and well travelled. In these respects they share a profile with Fathy's private clients, not his public user-groups in Egypt. The Dar al Islam Foundation and the owners of Fathy's villas knew and eagerly sought the architect's unique approach and style. They were both client and user. They entered their respective projects with an enthusiastic involvement that was sustained from the initial programming to the execution of the last construction detail. Perhaps the disparity between Fathy's success as an architect of villas and his failure as a planner to effect a housing revolution (15), lies not with his architecture *per se*, but with the nature of his clients and his practice.



xxv. Enclosed street. Balat.

(15) *Architecture for the Poor*, p. 113, 134-148.

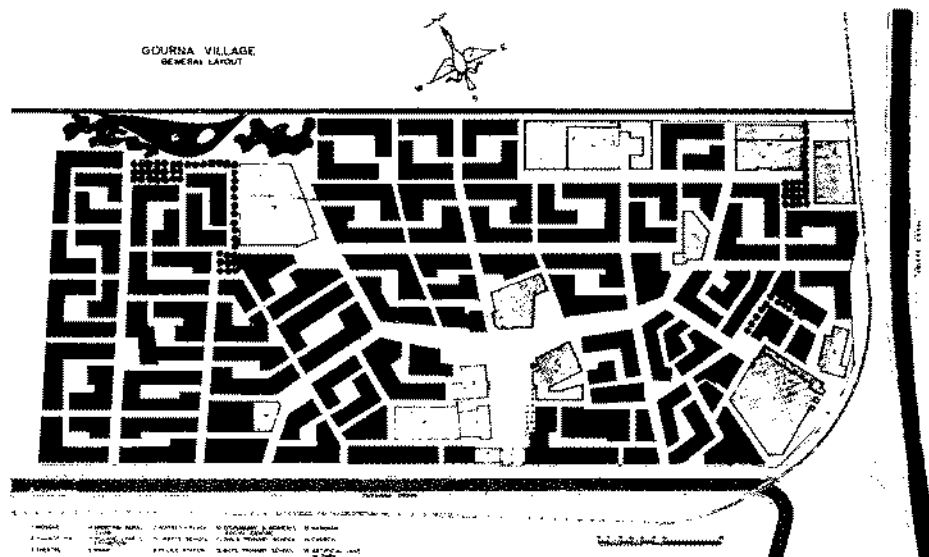


Plate 88 Master plan. 1948.

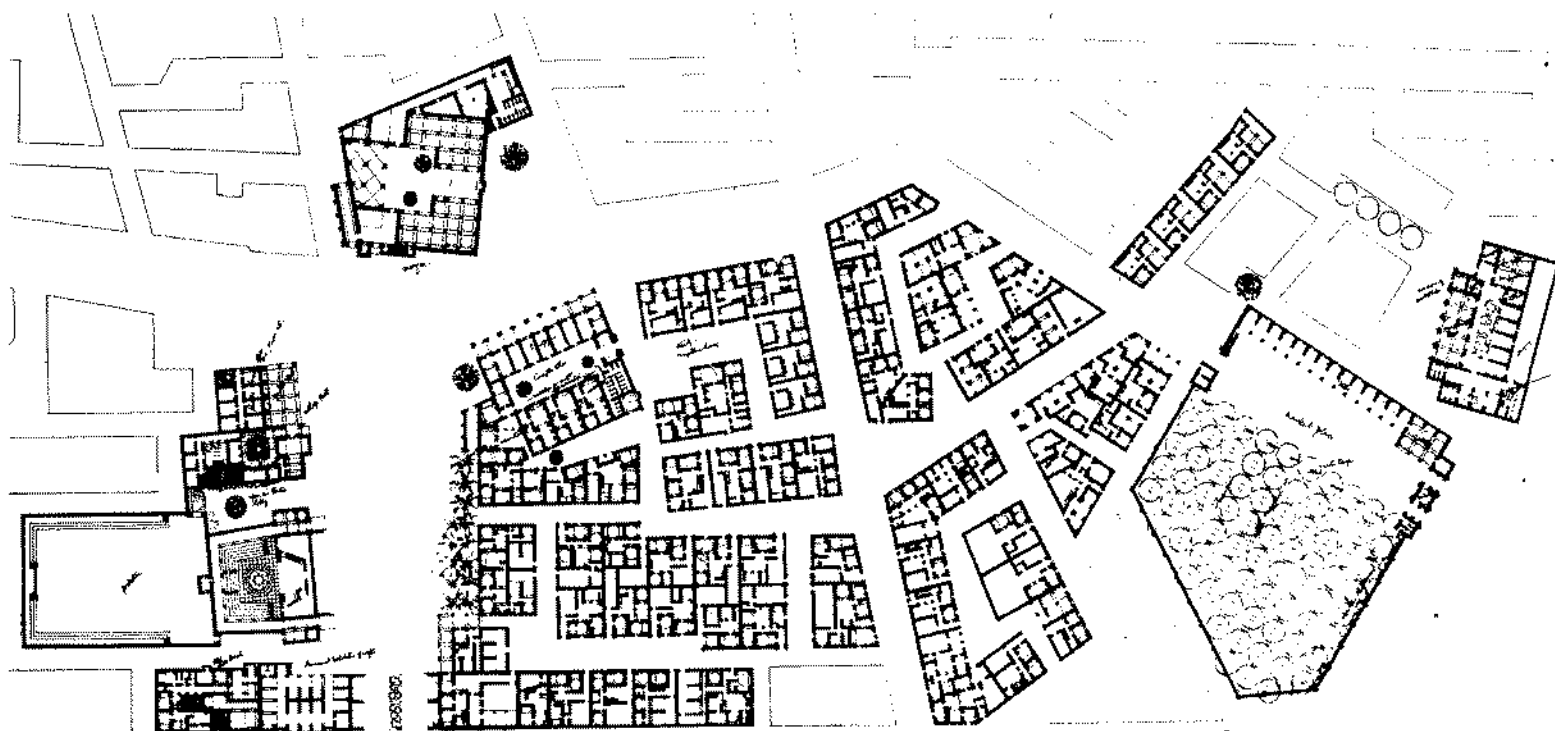


Plate 89 Master plan implementation.



Plate 90 Village *khan* in background.

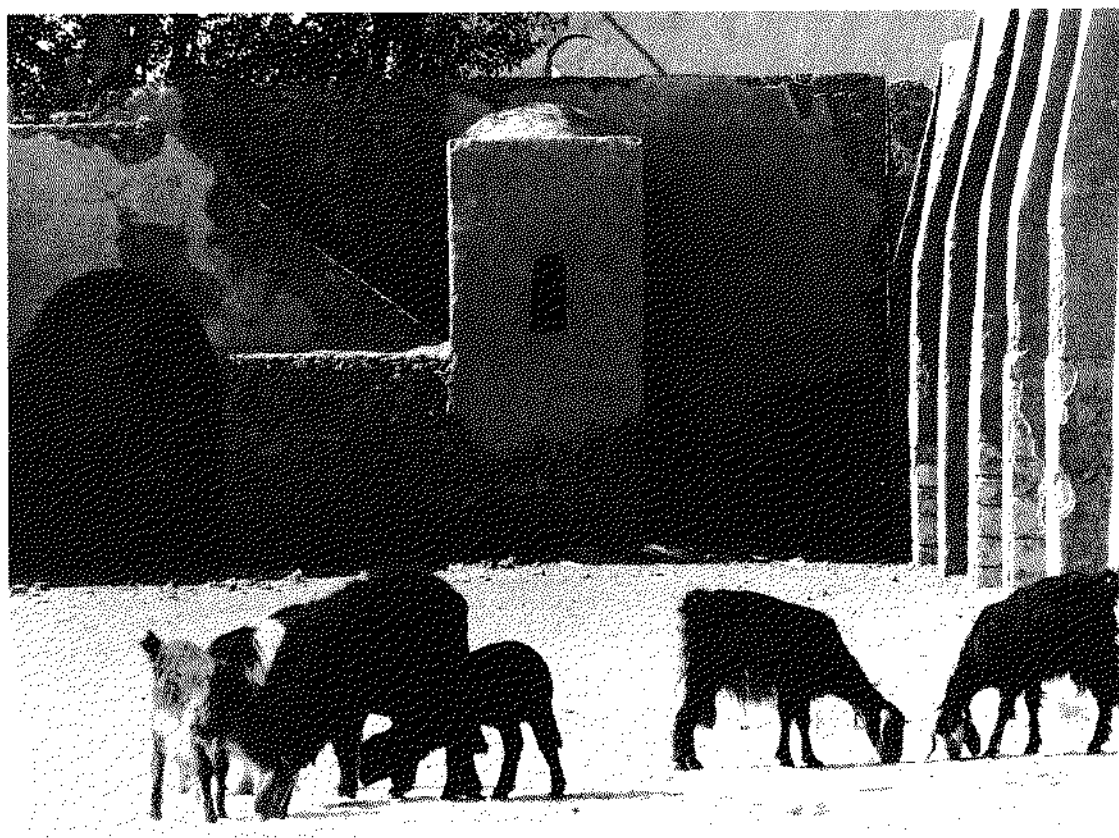


Plate 91 Village market.

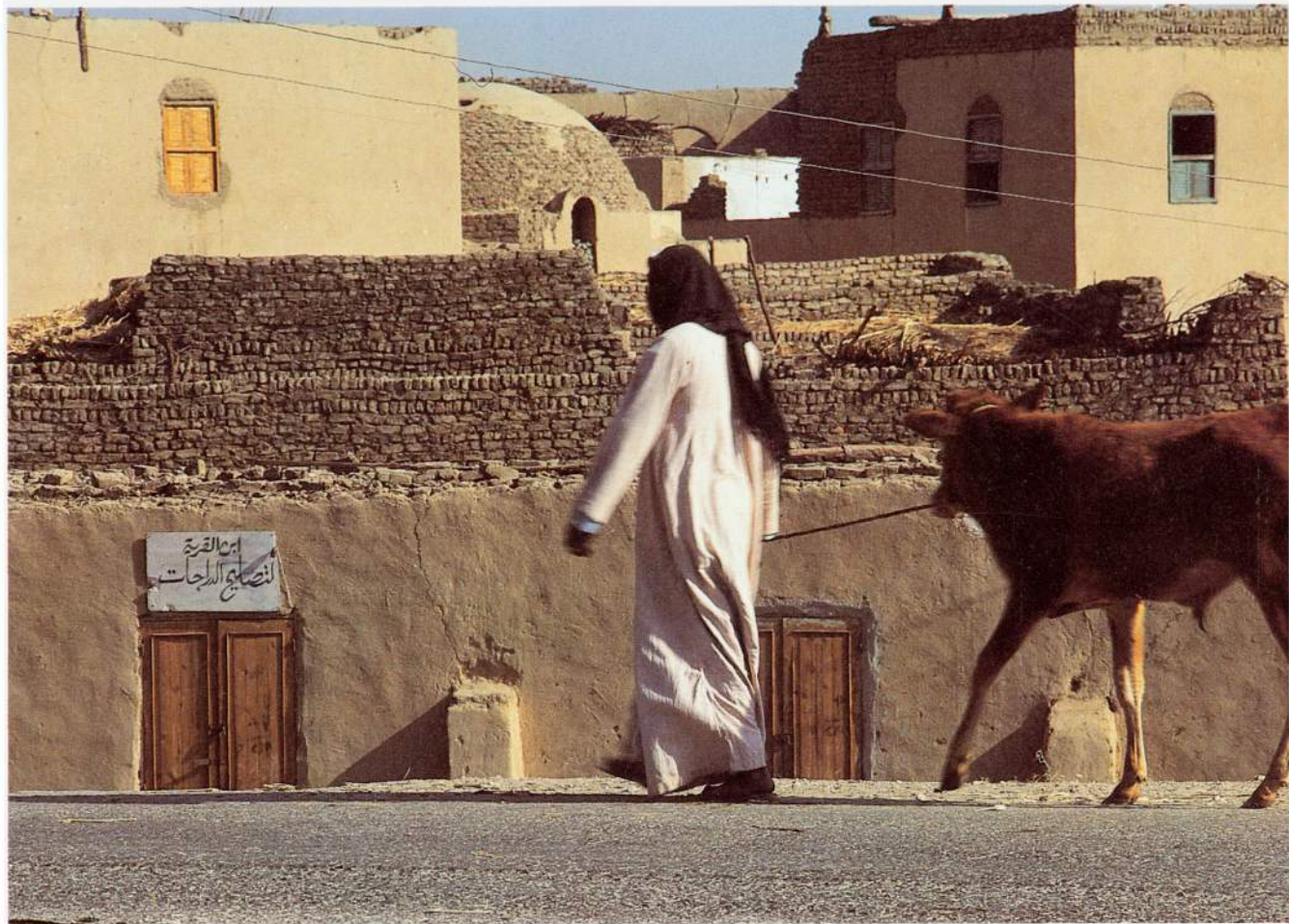


Plate 92 Typical view from a 'raised' street.



Plate 93 Fathers and sons at their work

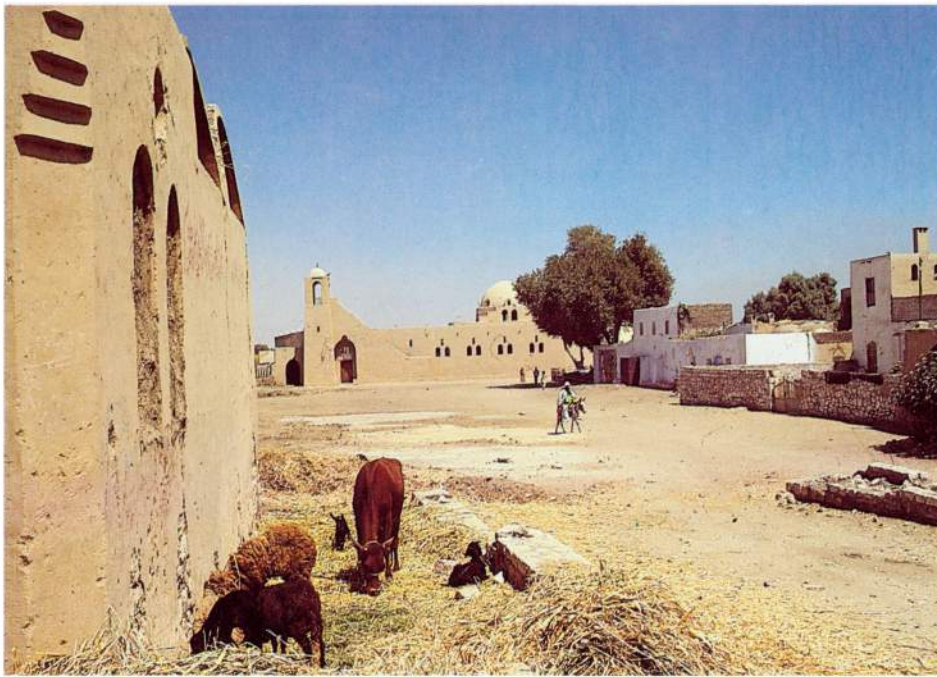


Plate 94 Village square and mosque.

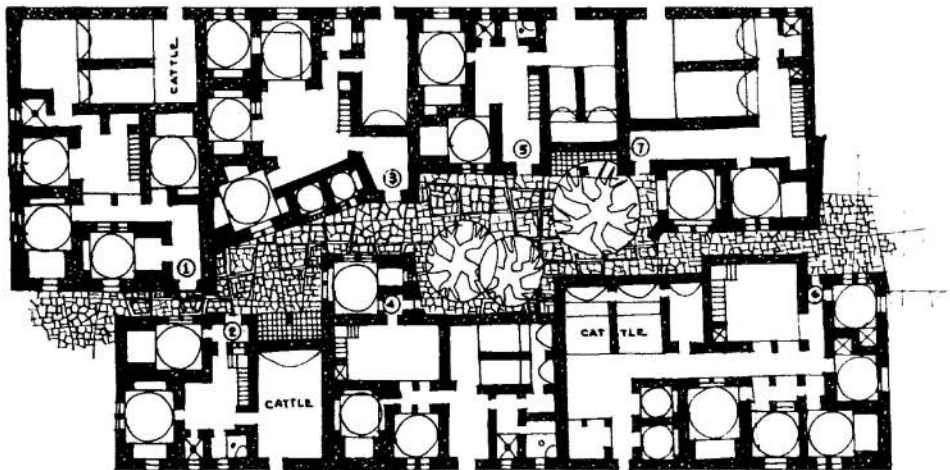
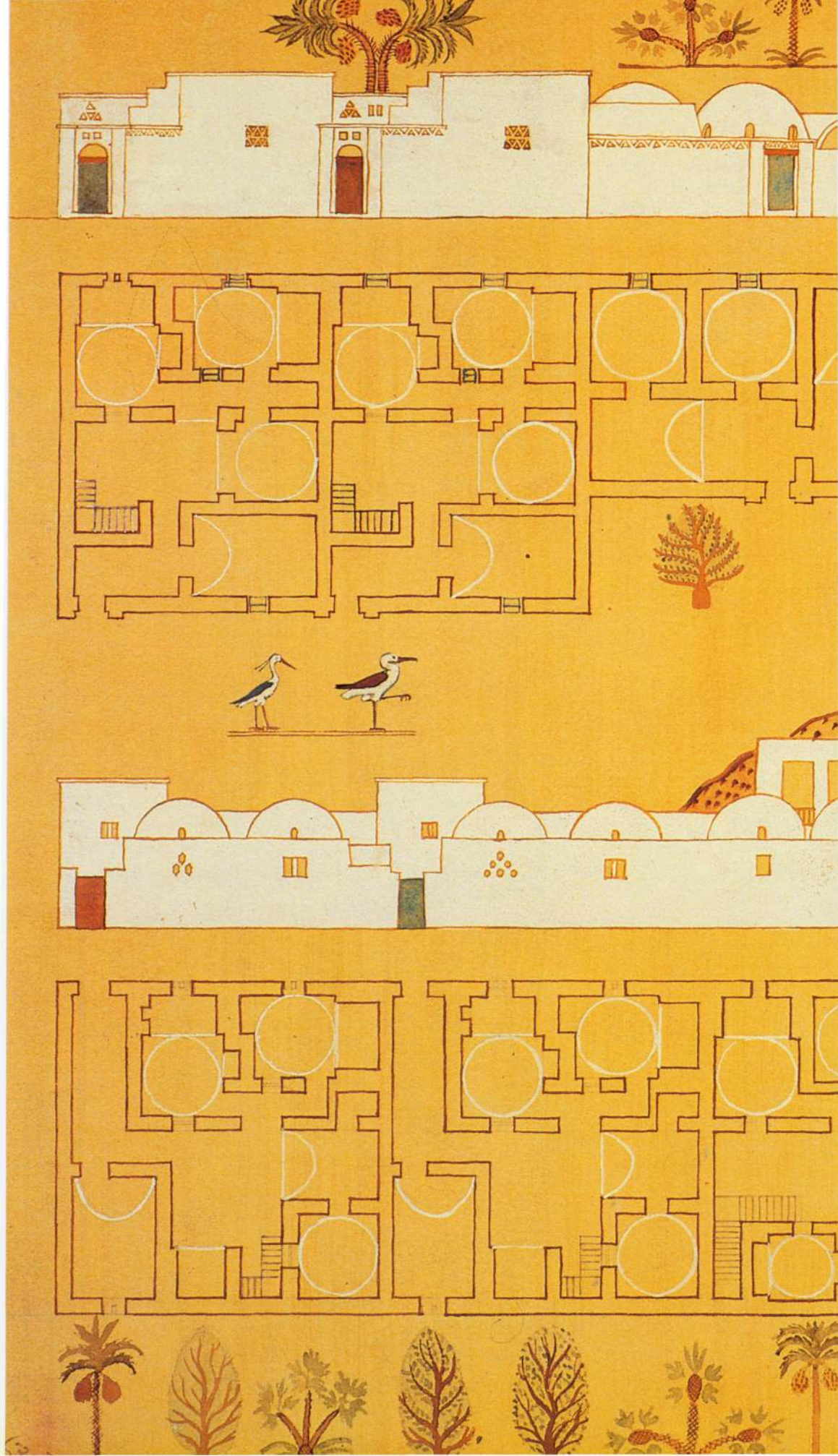


Plate 95 Village street with closed vista.

Plate 96 Socializing along the street.



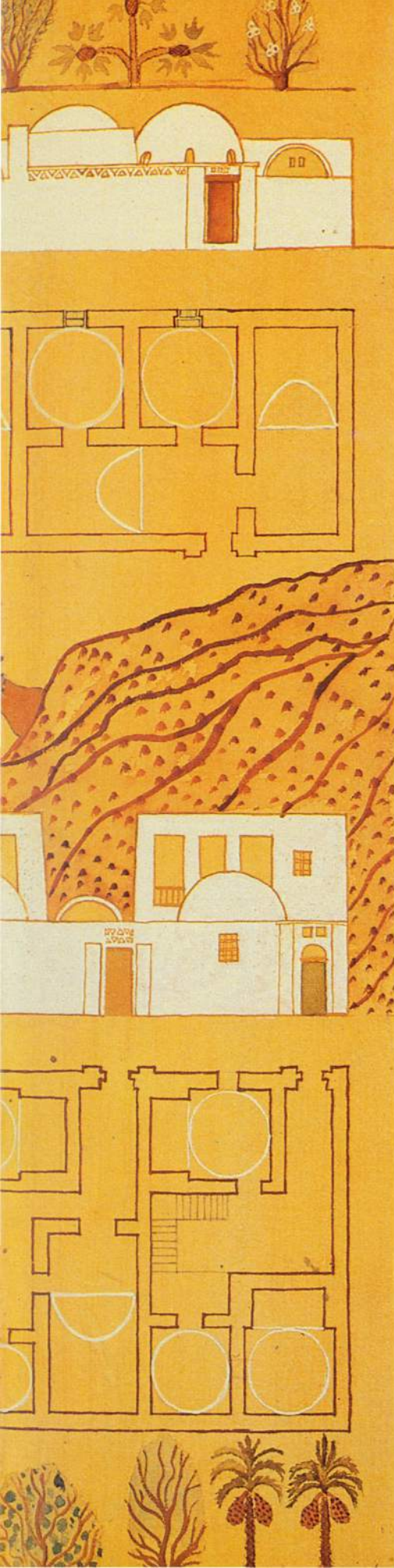


Plate 97 The village outskirts.

Plate 98 Village housing. Gouache on paper. c. 1948.



Plate 100 Breadmaking outside threshold.



Plate 101 Drumming.

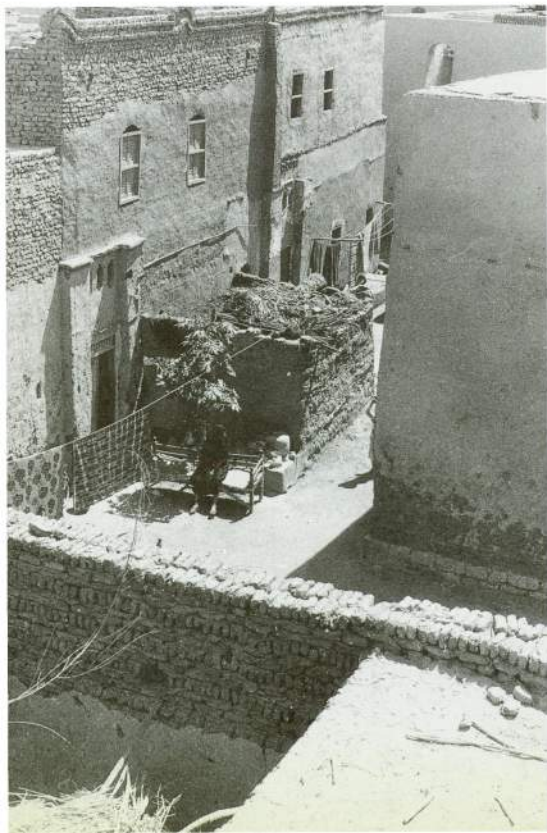


Plate 99 Enclosed garden addition to house.



Plate 102 Village street.



Plate 103 Typical window.



Plate 104 Courtyard with oven.

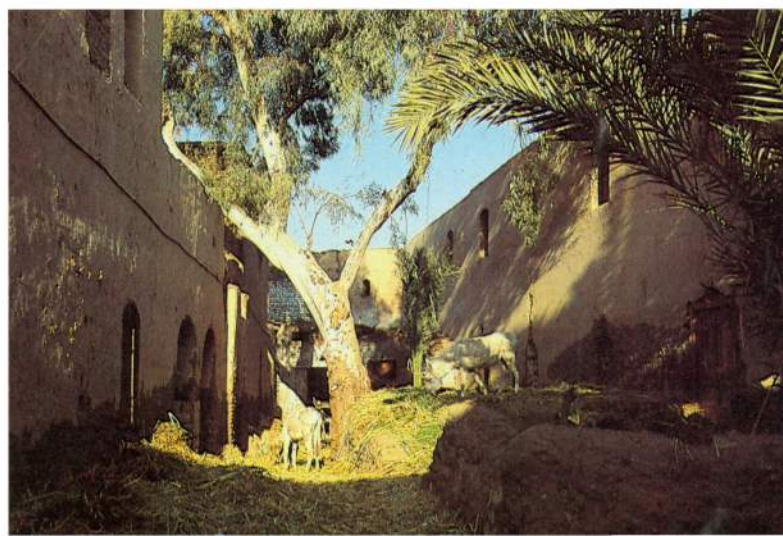


Plate 105 Courtyard steps to first level.

Plate 107 Street with closed vista.



Plate 106
Courtyard in typical house.



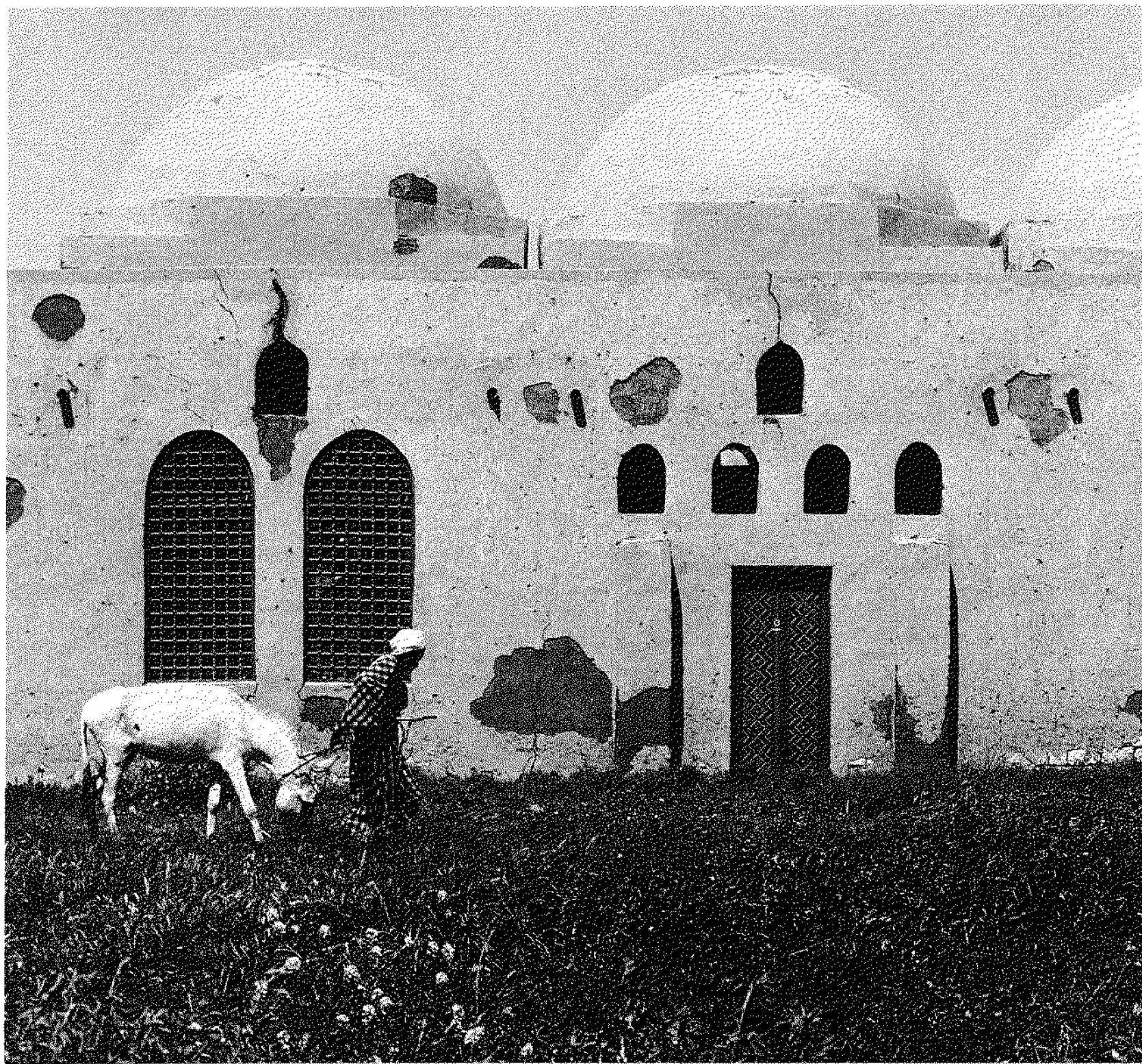


Plate 108 Boys' School facade.

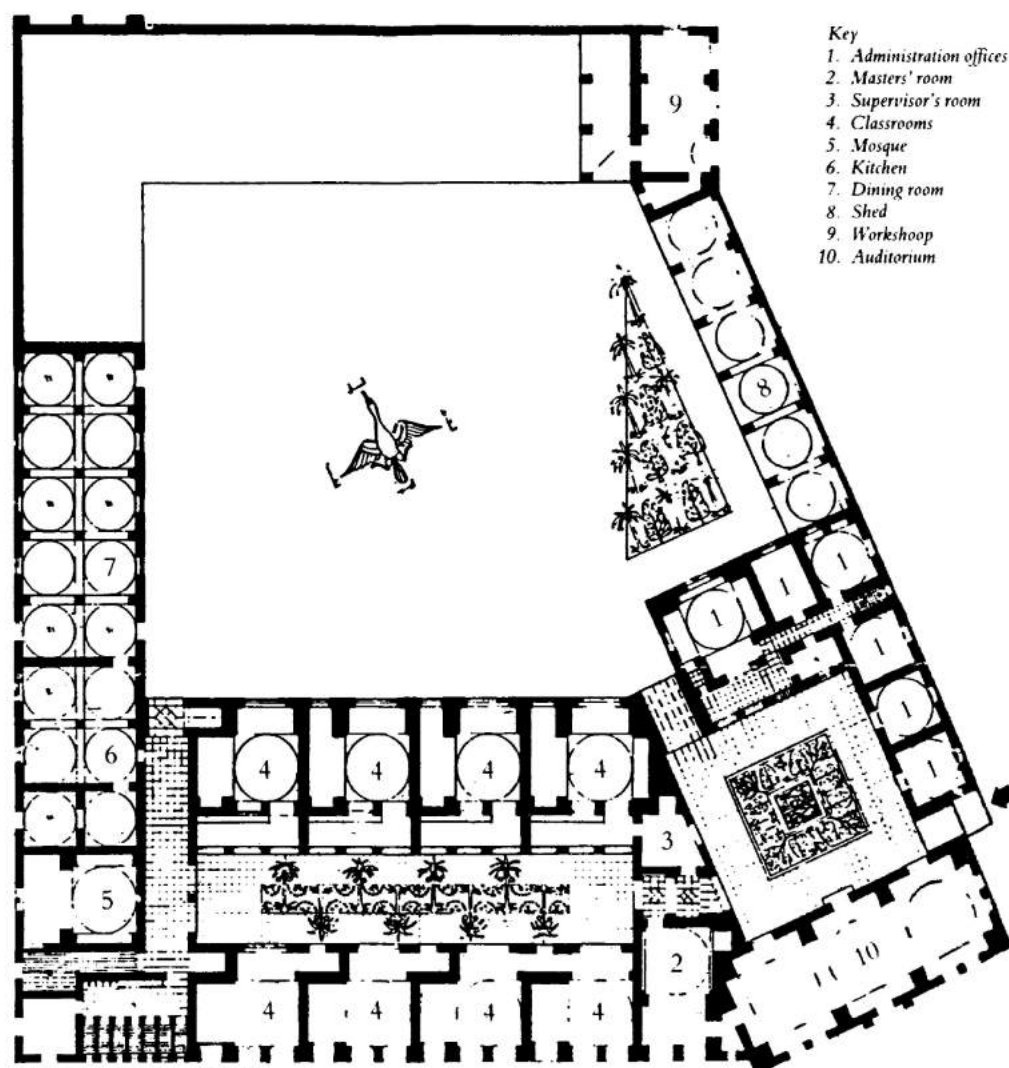


Plate 109 Plan, Boys' School

Plate 110 Plan.

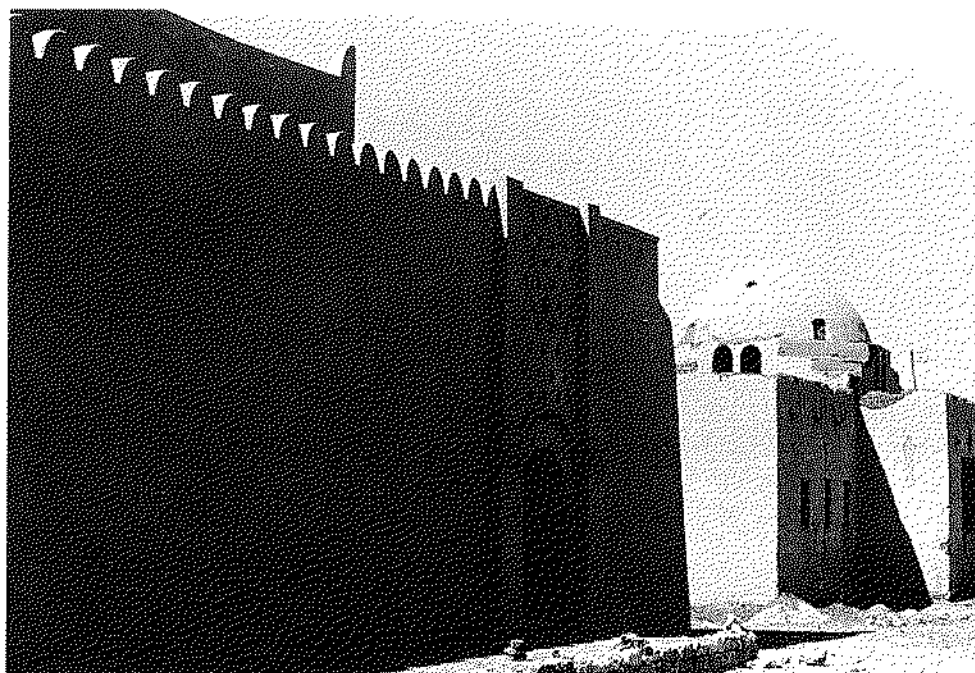
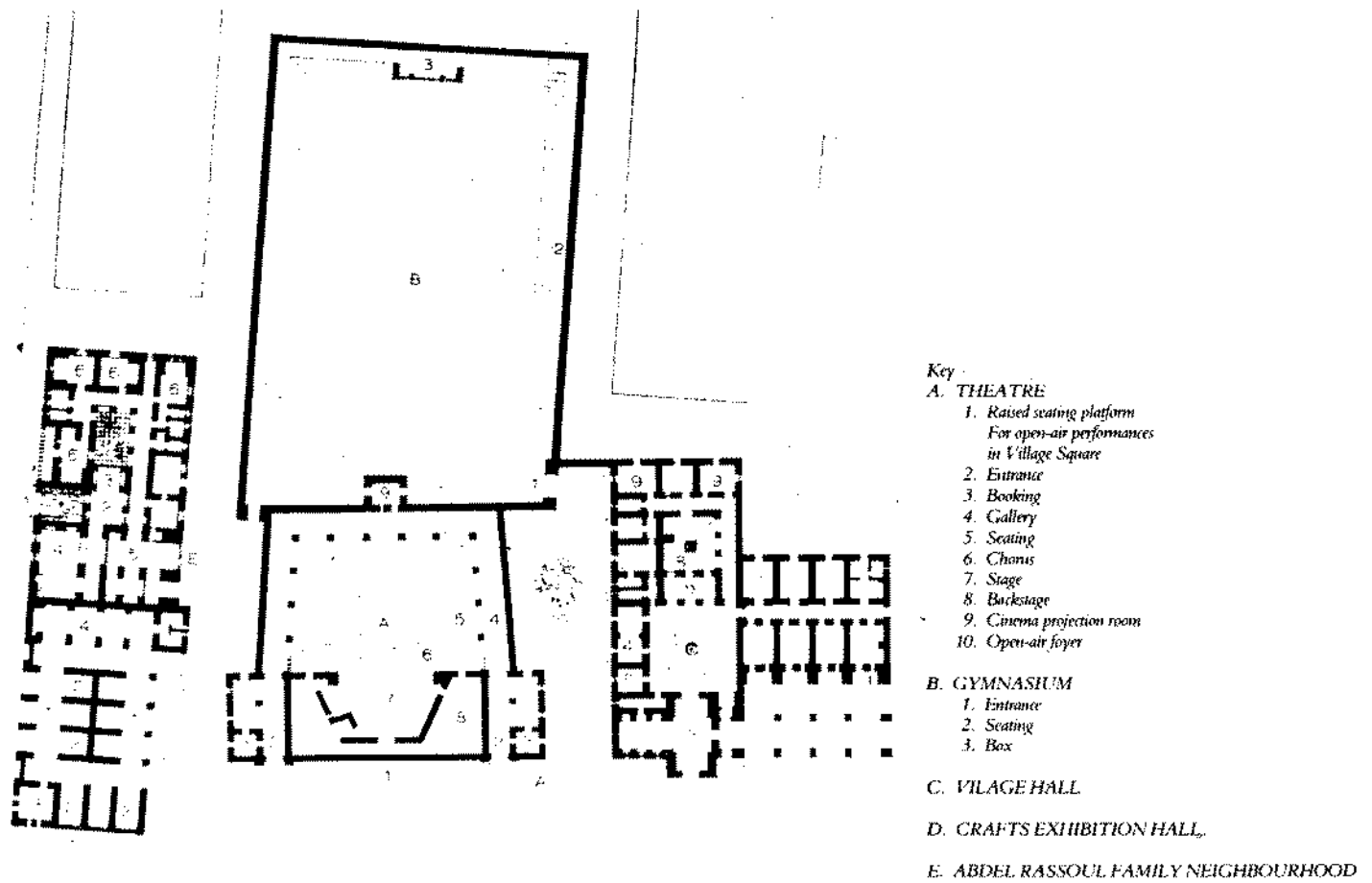


Plate 111 Village theatre and village hall.

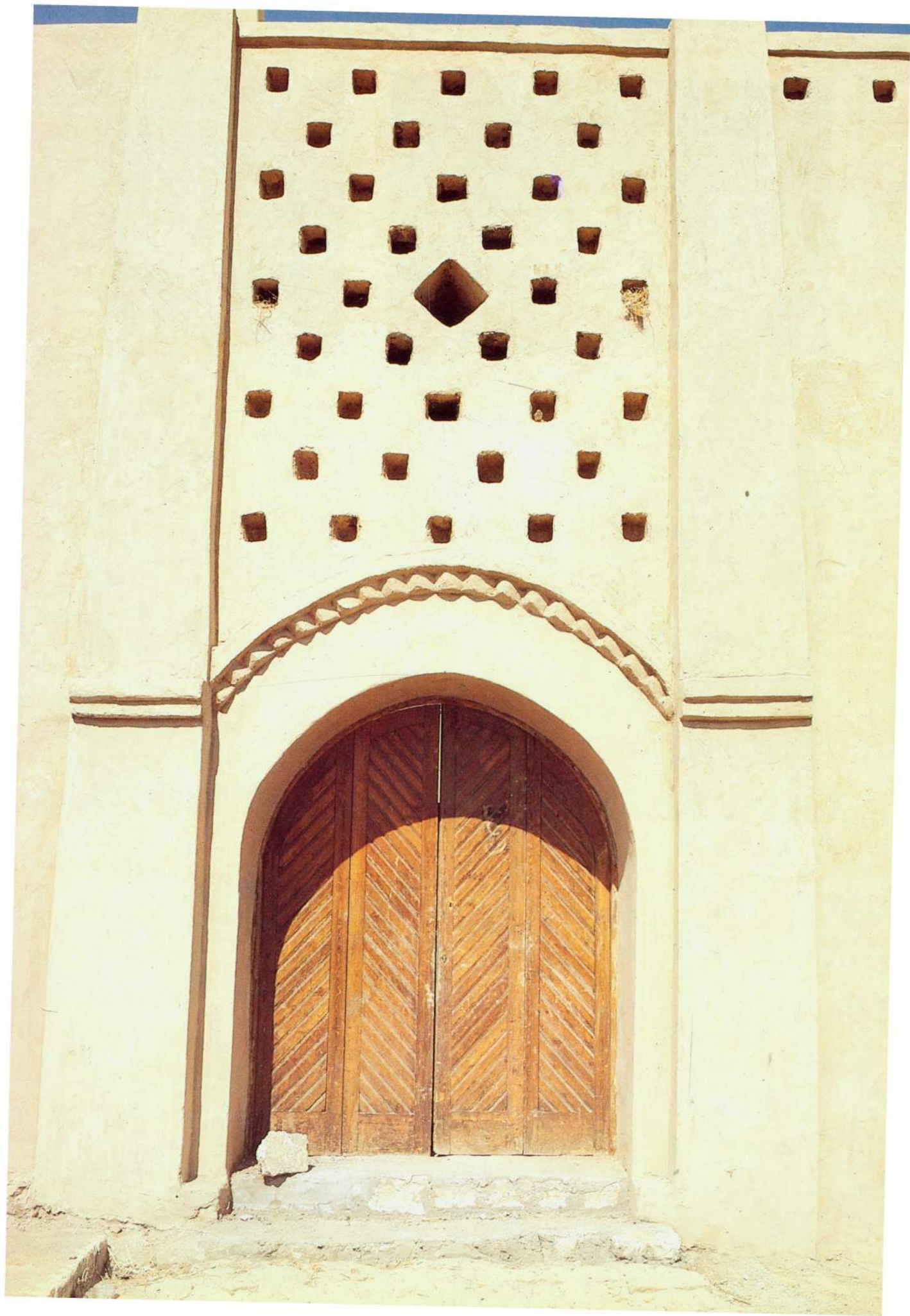


Plate 112 Theatre portal.

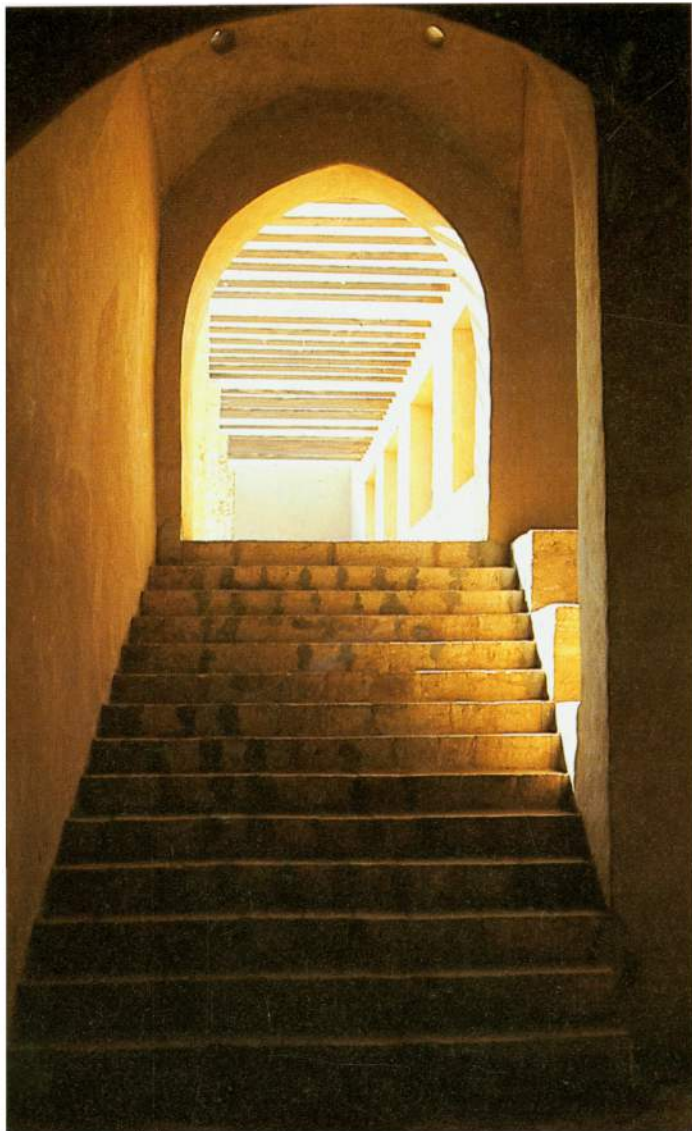


Plate 113 Stairhall to seating.

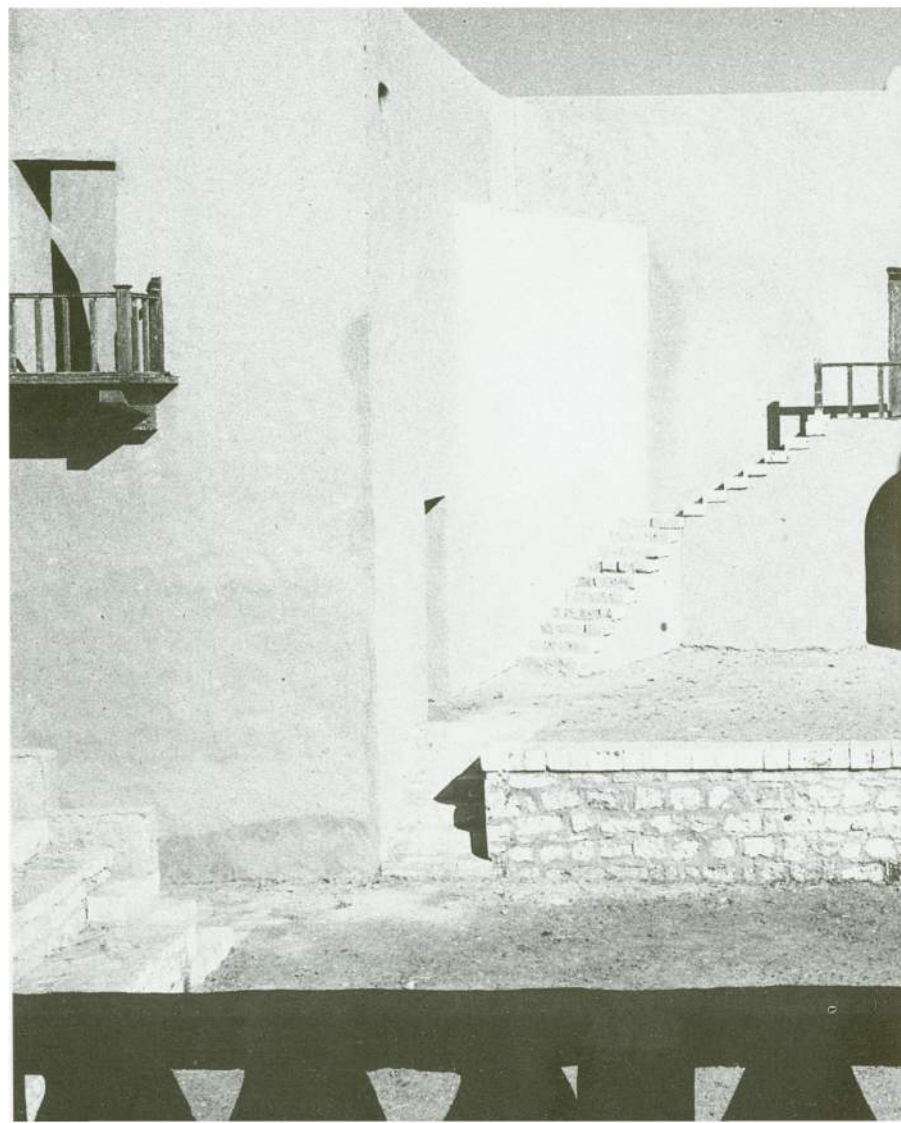


Plate 114 Stage facade.



Plate 115 Stage le.

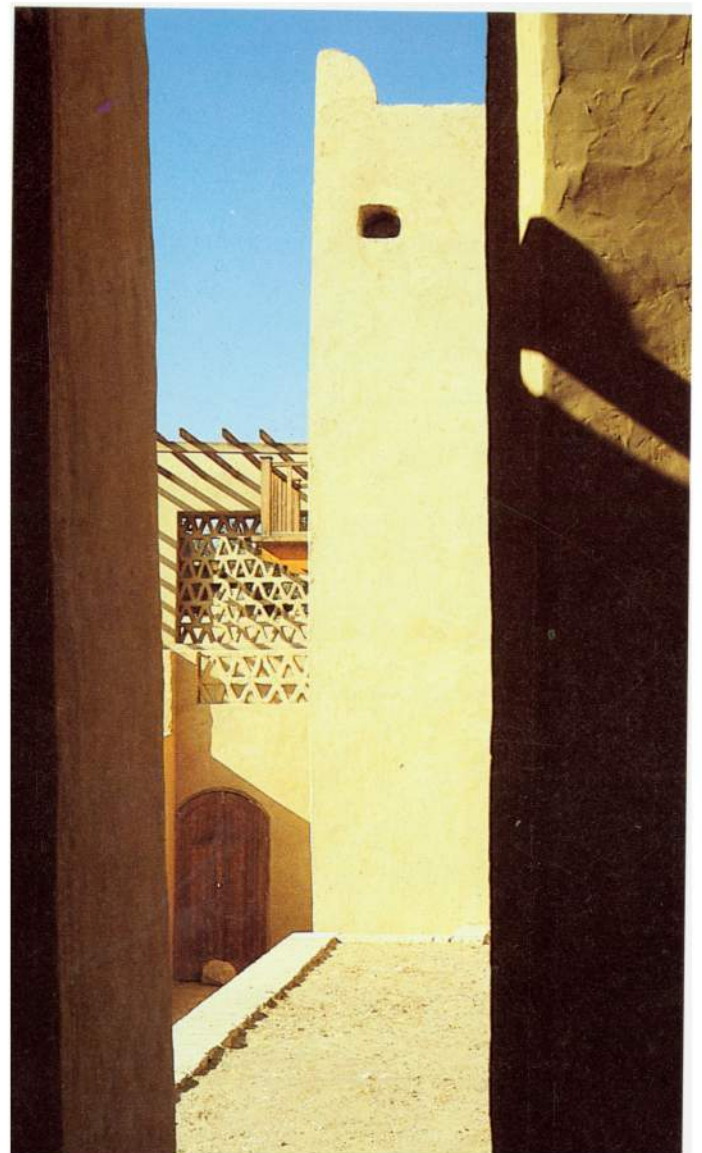


Plate 116 Stage viewed from the wings.

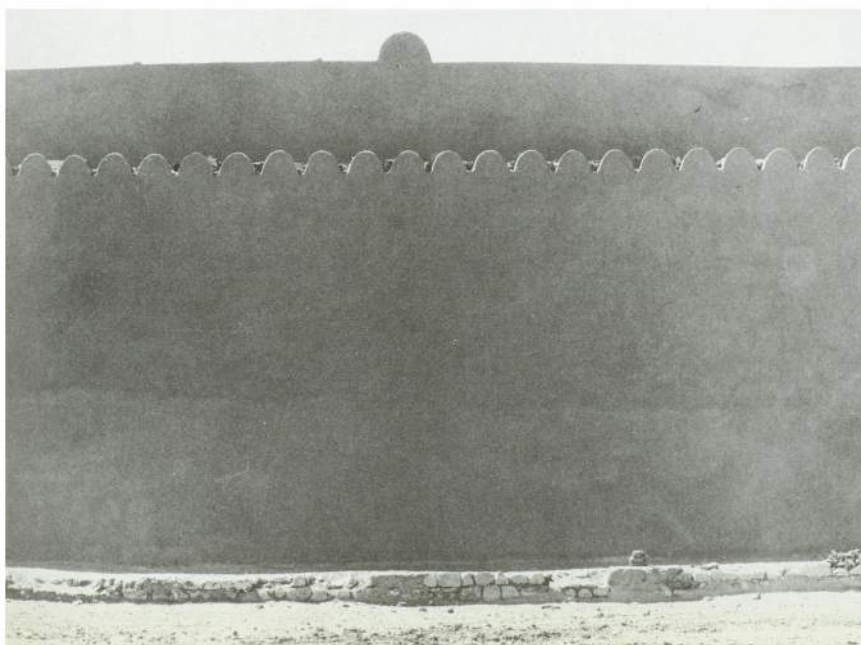


Plate 117 Facade detail in village square.

Plate 118 Plan.

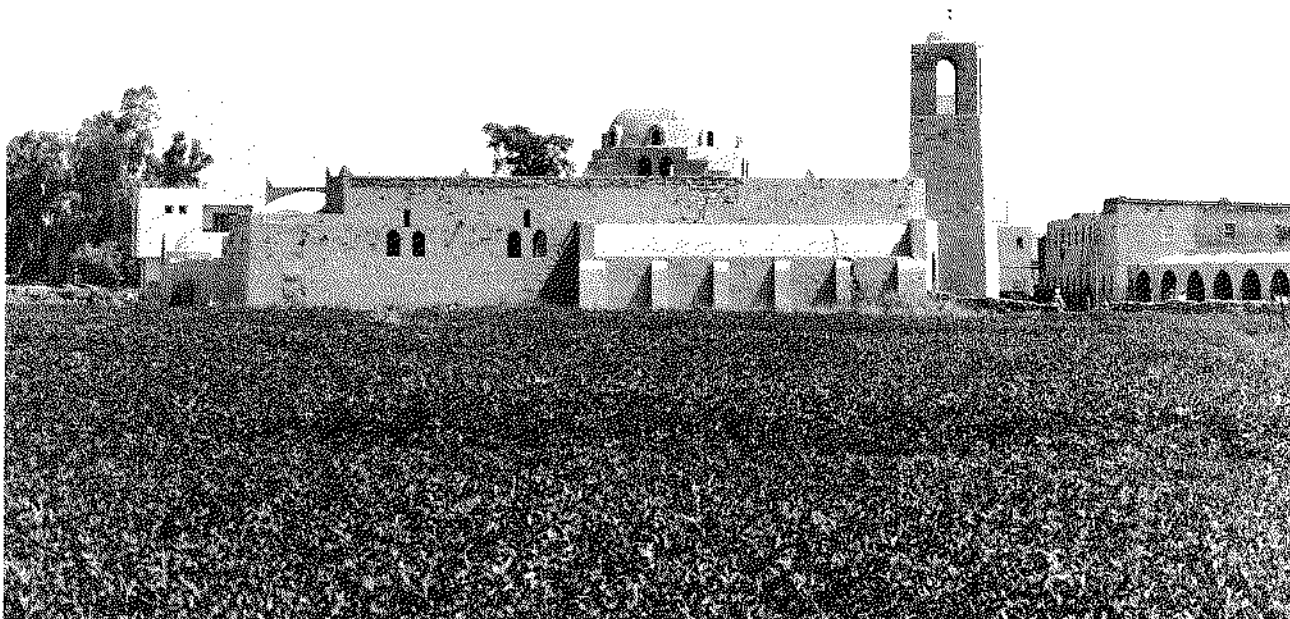
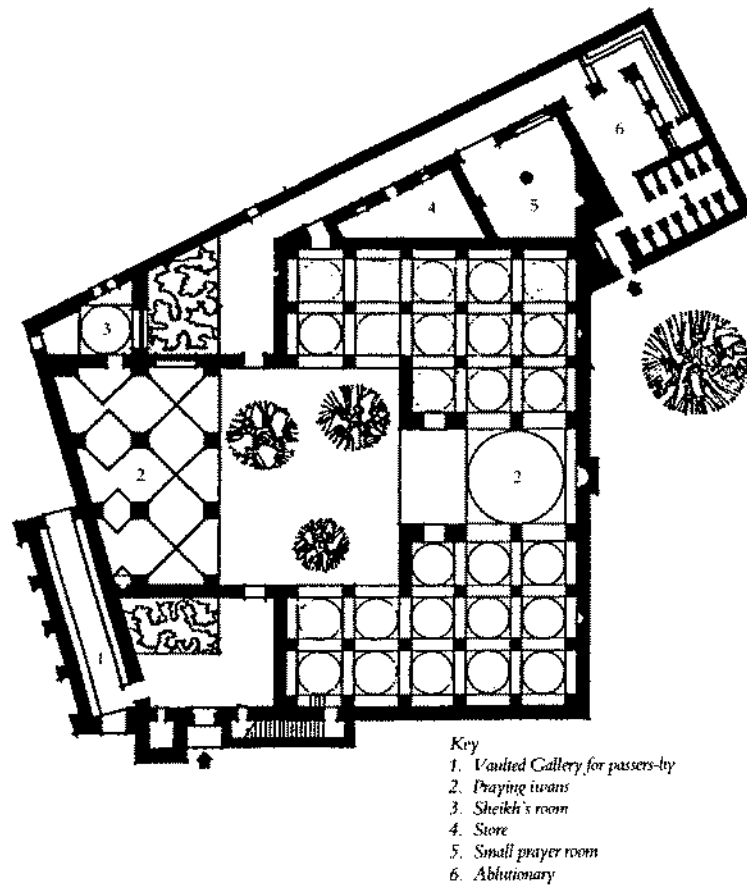


Plate 119 Village mosque.



late 120 Courtyard.

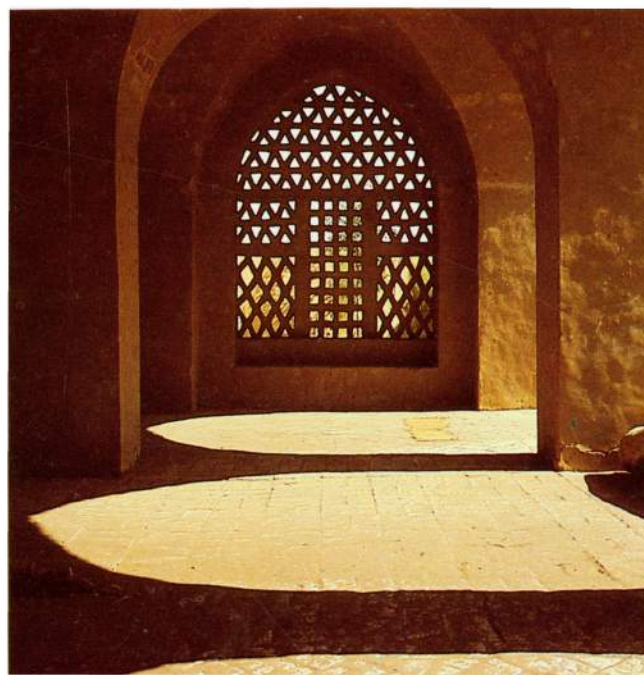


Plate 121 Borrowed light. Courtyard Arcade.

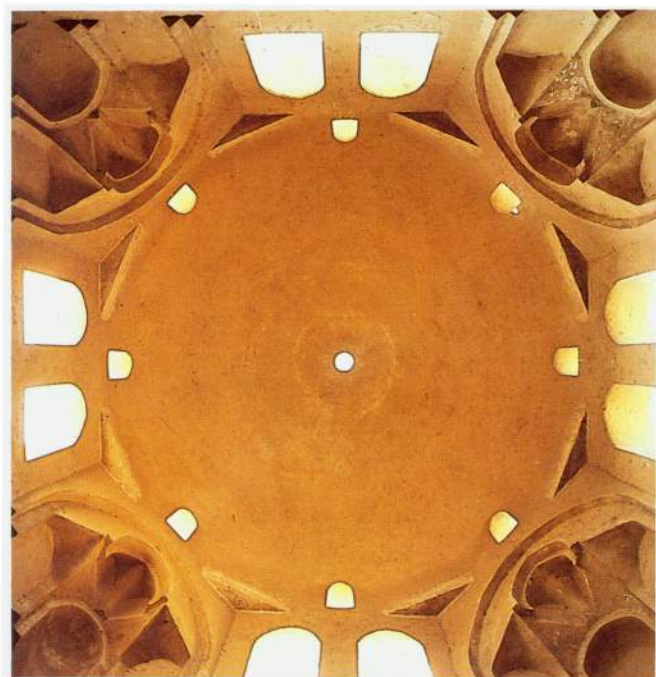


Plate 122 Interior of central dome.



Plate 123 Massing at squinch zone.

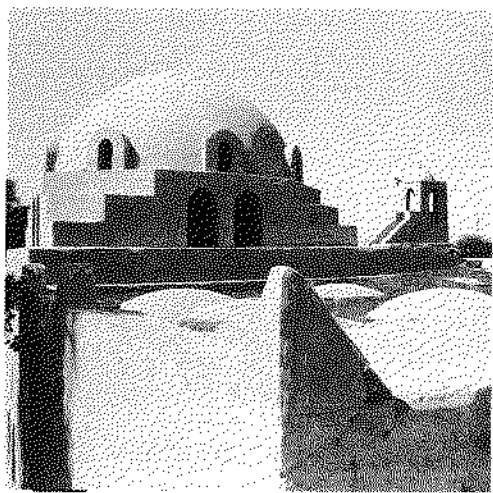


Plate 124 Roofscape.



Plate 125 Shafts of light.



Plate 126 Looking towards the courtyard.

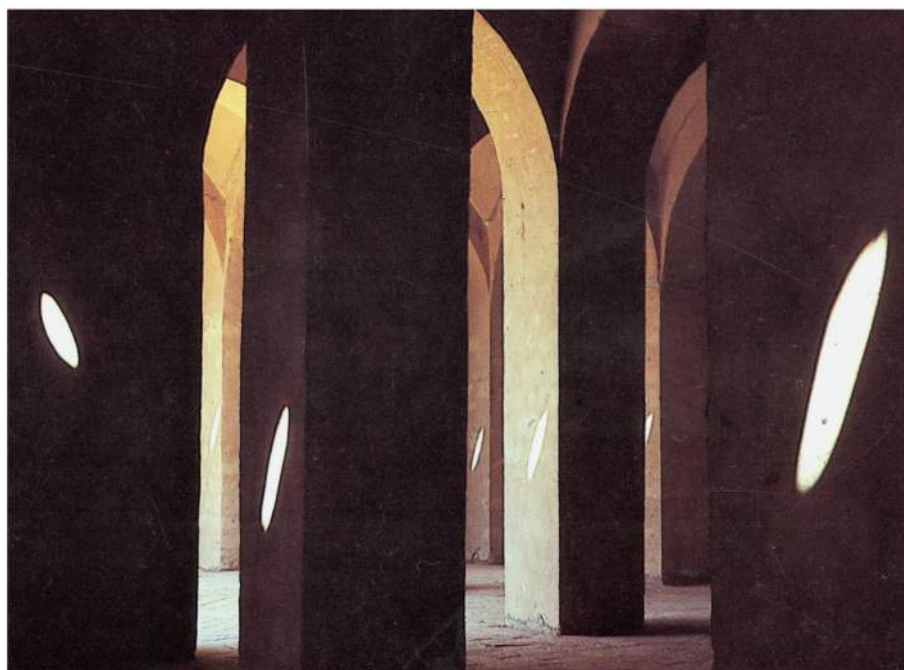


Plate 127 Beamed light.

Plate 128 Plan of mosque and *madrasa*.

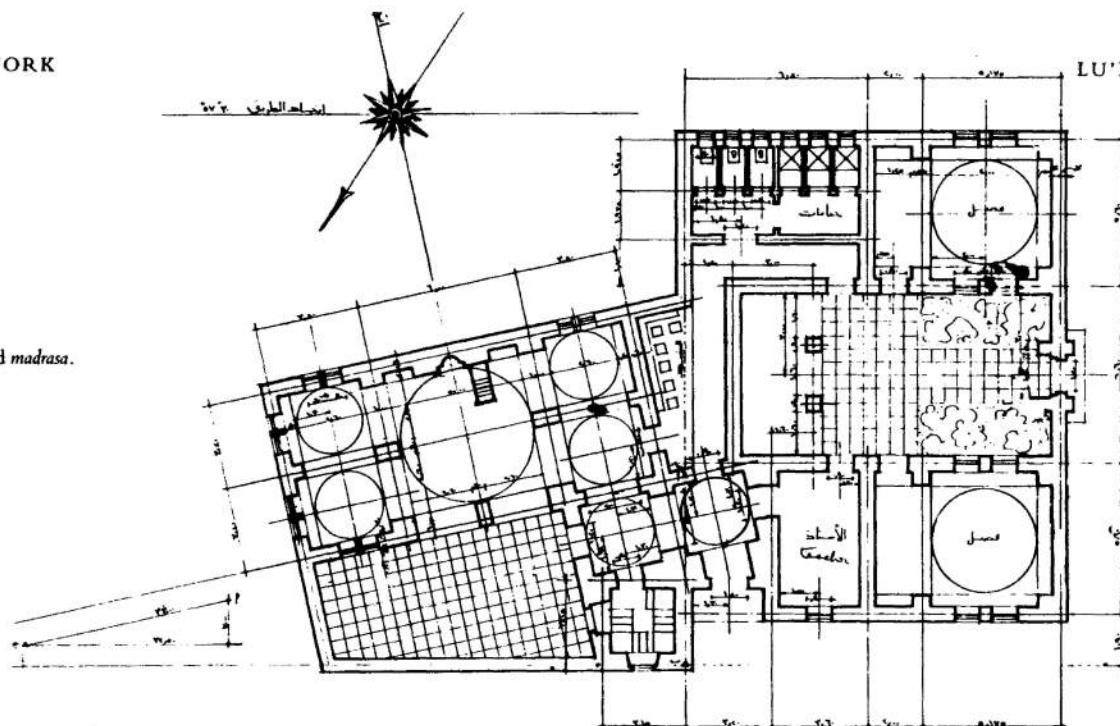


Plate 129 Threshold to *madrasa* courtyard.





Plate 130 Mosque and *madrasa*.



Plate 131 Prayer area.

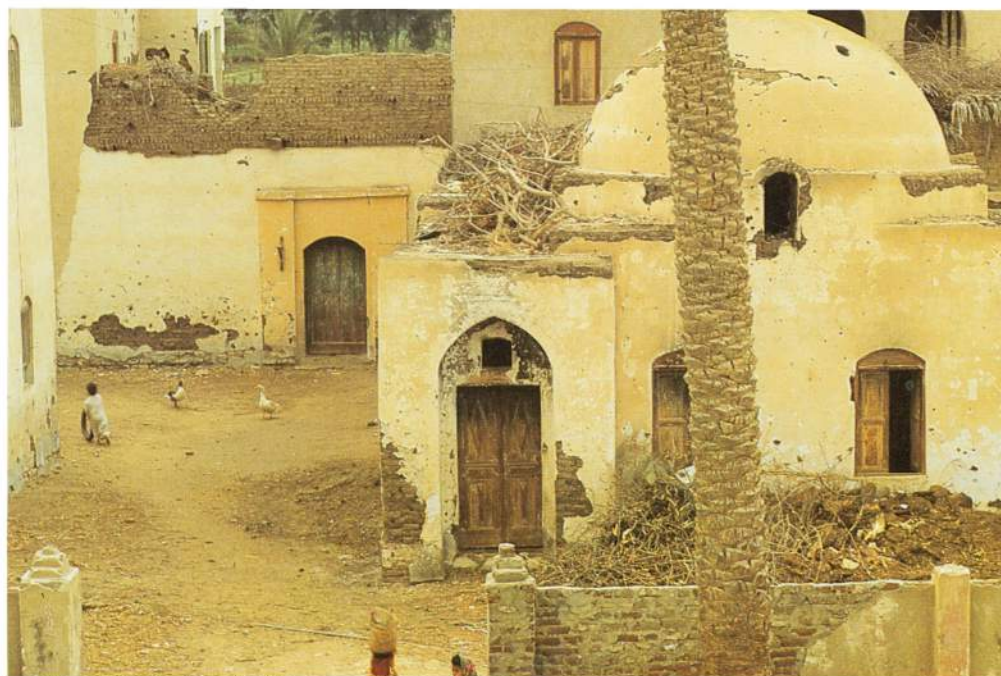


Plate 132 Guesthouse (right) at courtyard entrance.



Plate 133 Mosque and *madrasa*.



Plate 134 Housing viewed from the southeast.

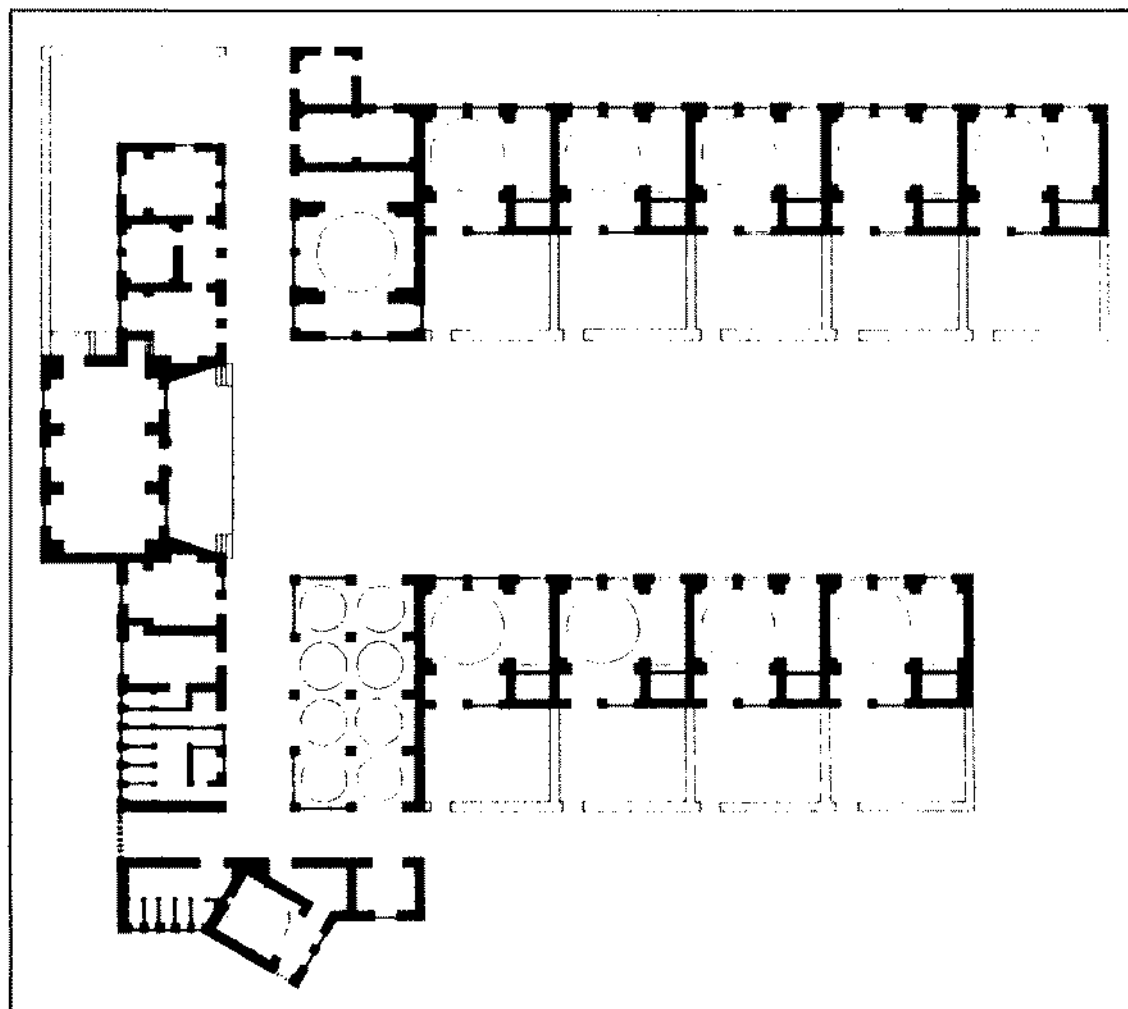
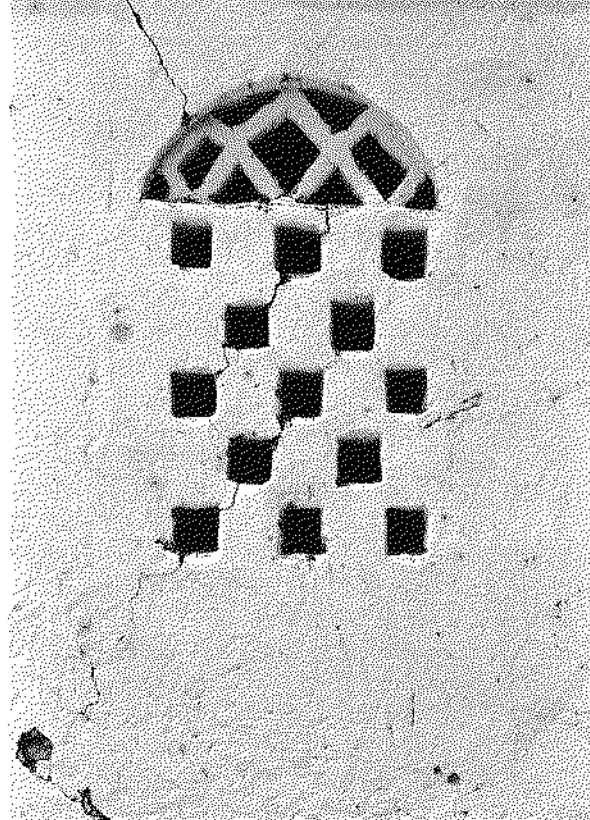


Plate 135 Plan. c. 1957.



Plate 136 Dome of library.





Plate 137
Facade along street.



Plate 138 Teaching in a classroom.

Plate 139 Massing of library and classroom.

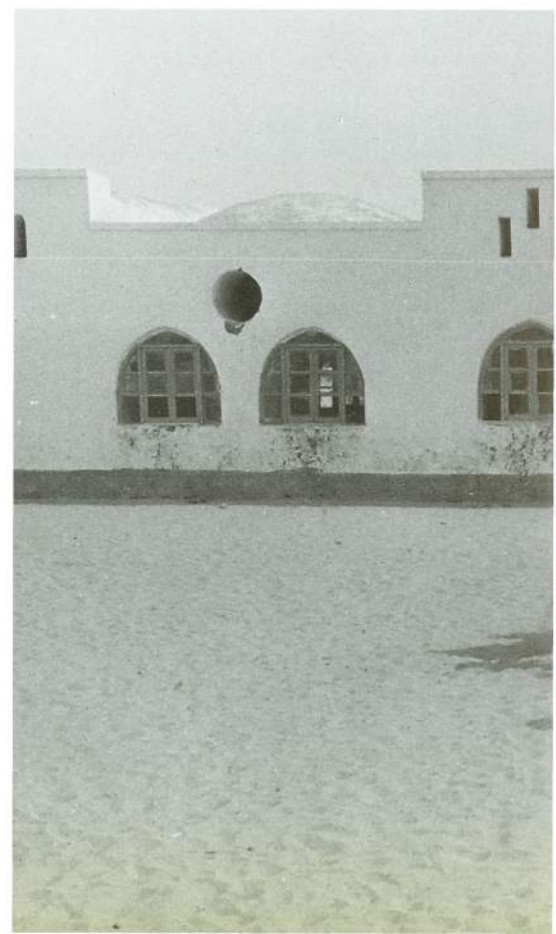


Plate 140 Plan and section of typical classroom.

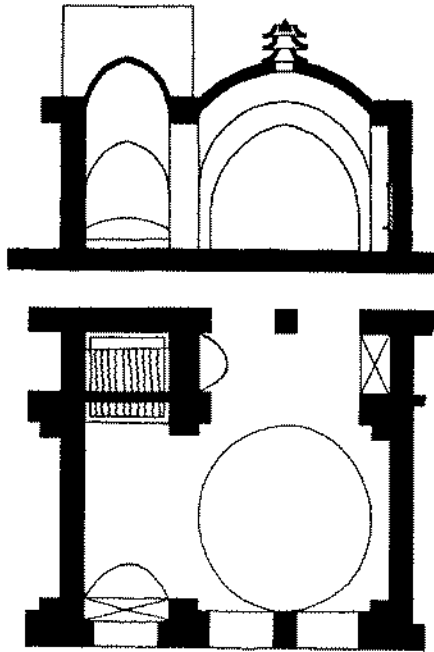


Plate 141 Assembling in the courtyard.



Plate 142 Library.



Plate 143 Training Centre for the Desert Development and Reclamation Bureau.



Plate 144 Courtyard and loggia between offices and workshops.

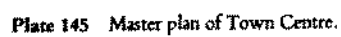


Plate 146 General view.

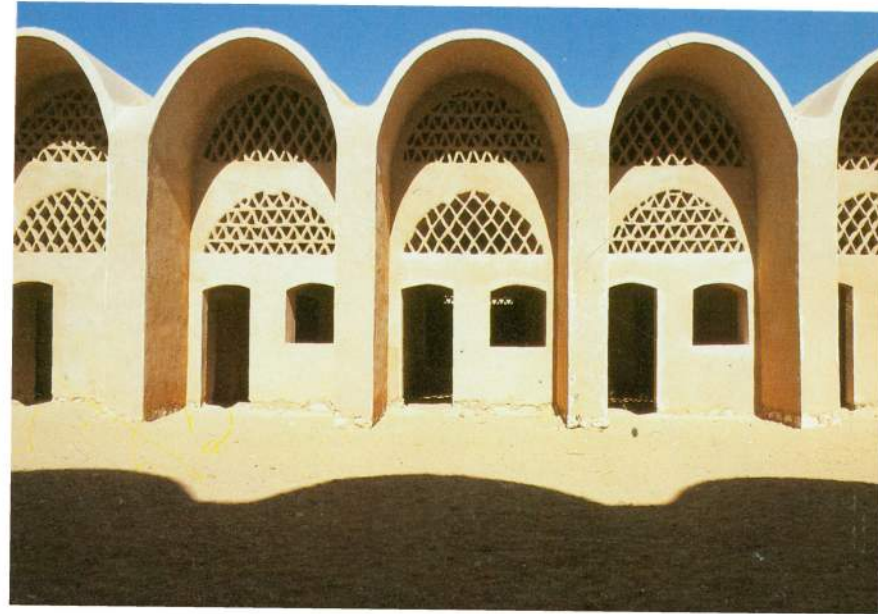
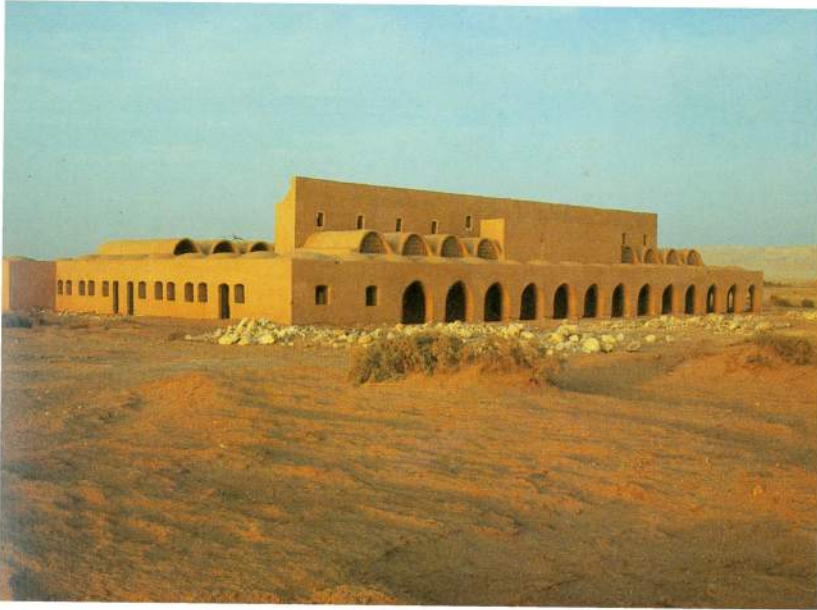


Plate 147 Shop facades on market courtyard.

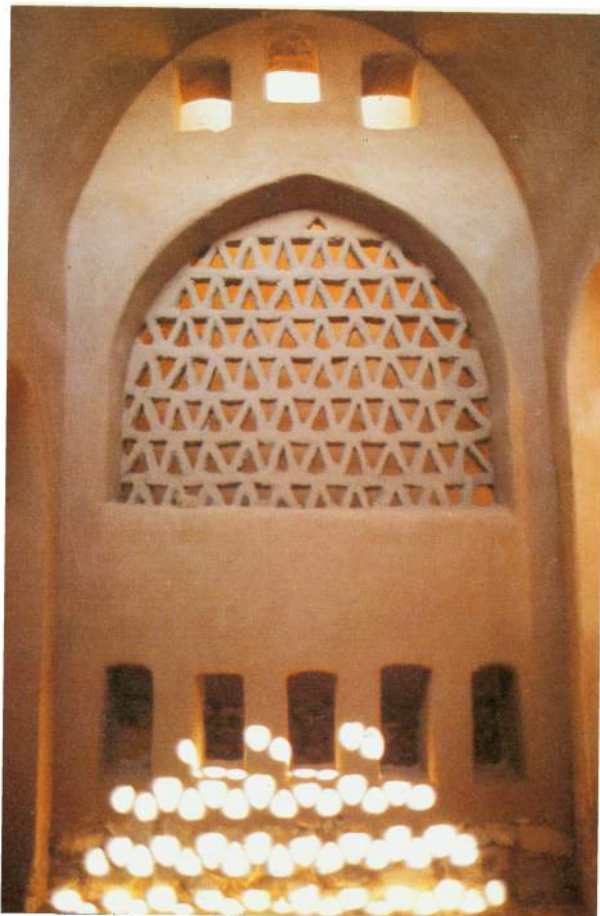


Plate 148 Patterned light.

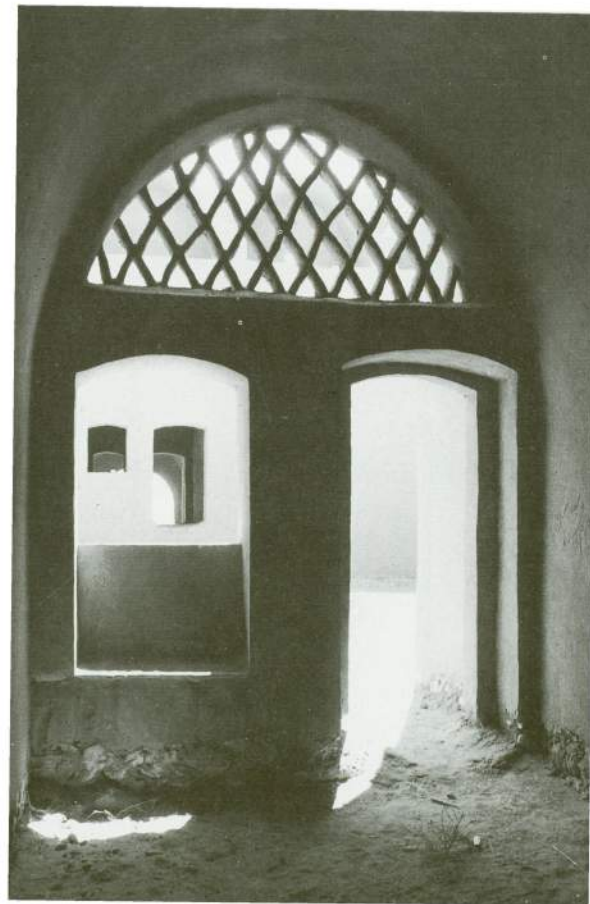


Plate 149 Shop interior.

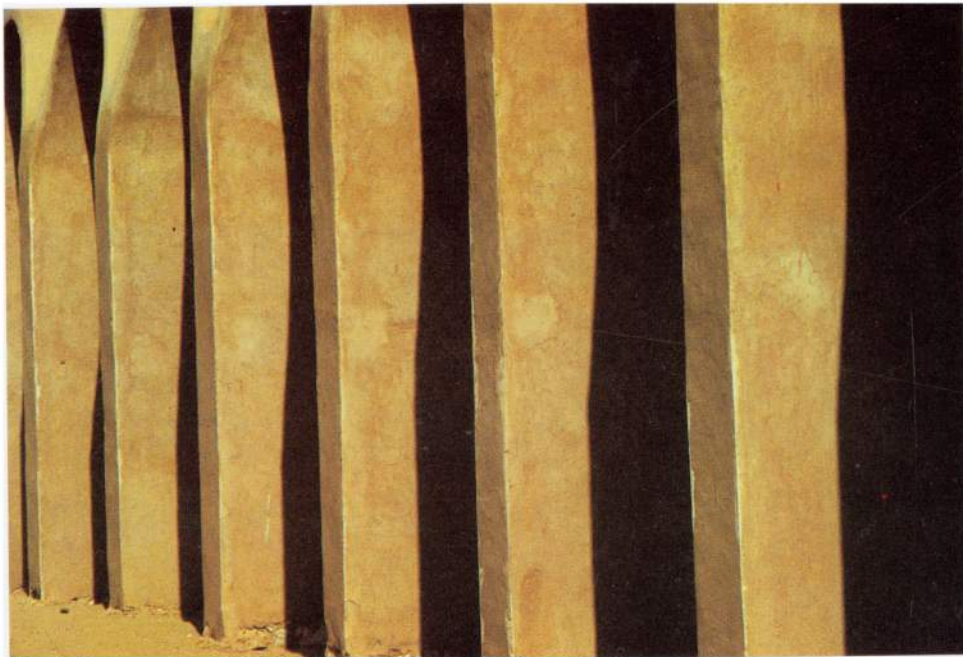


Plate 150 Structural sun baffles defining shops fronting the market courtyard.

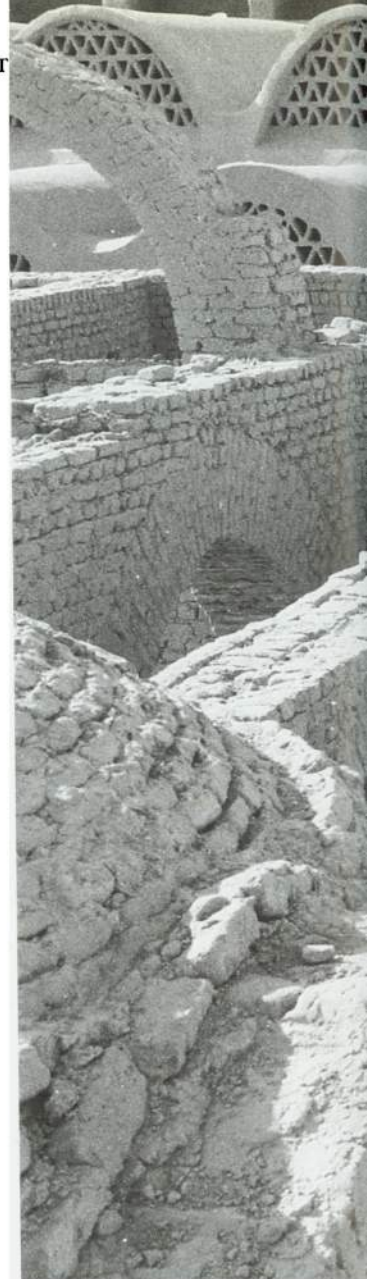


Plate 152 Village market with adobe walls and arched openings.

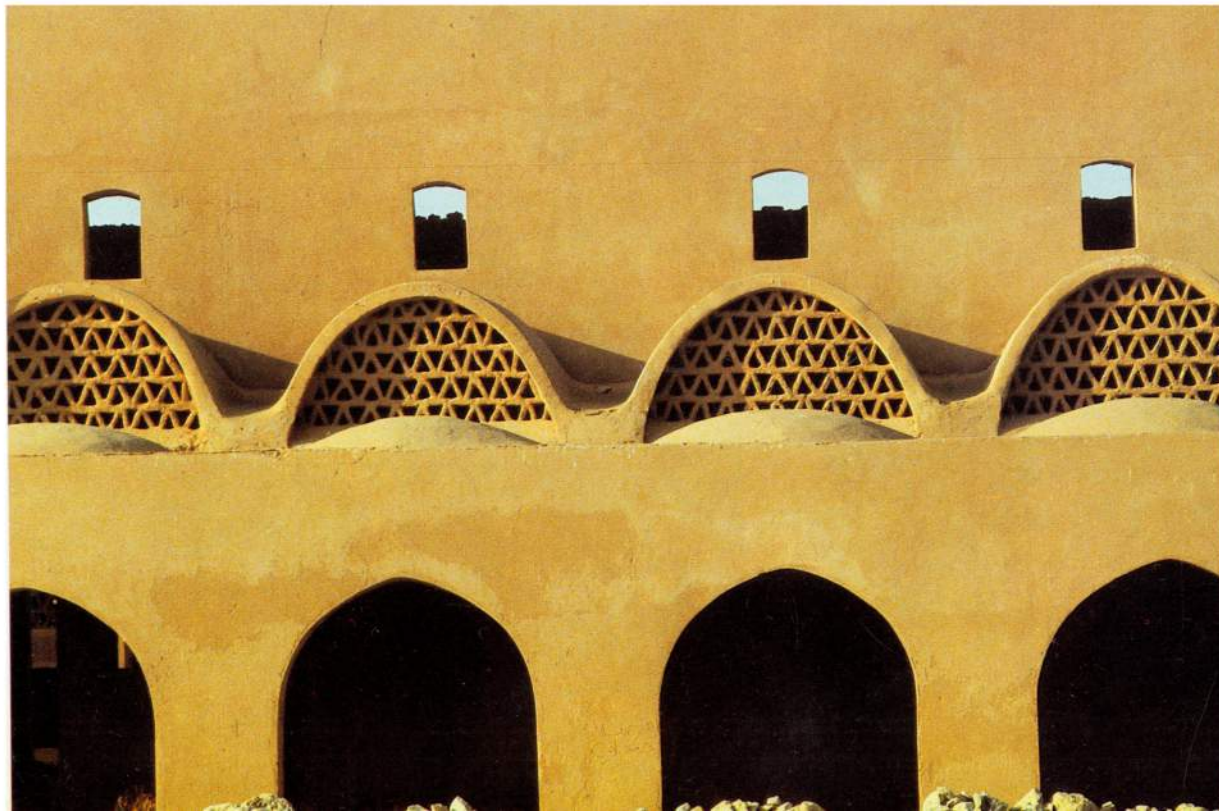


Plate 151 Loggia.



offices in foreground.



Plate 153 Market courtyard.



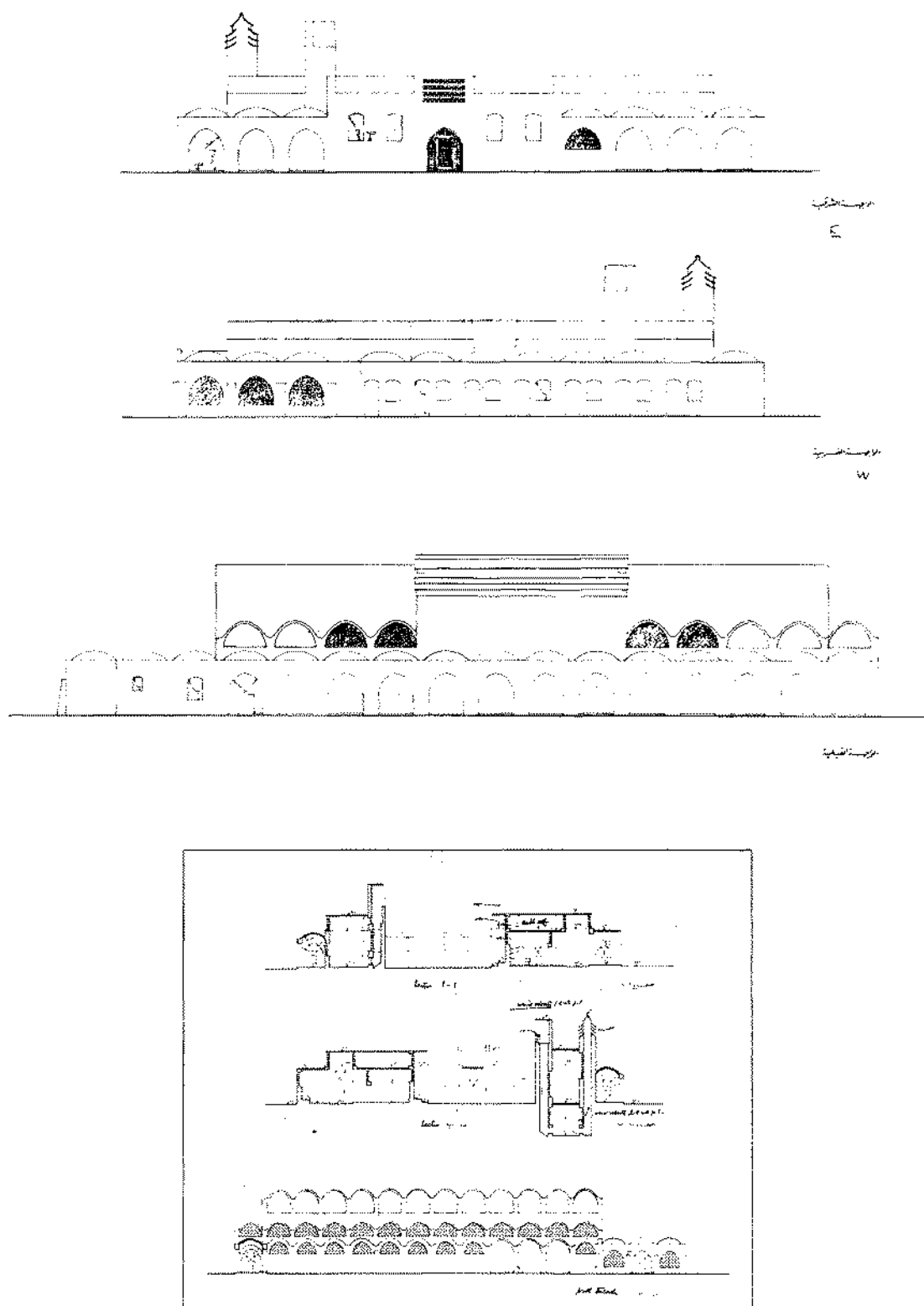




Plate 156 Detail of pendentine domes.



Plate 157 Arches and vaults.

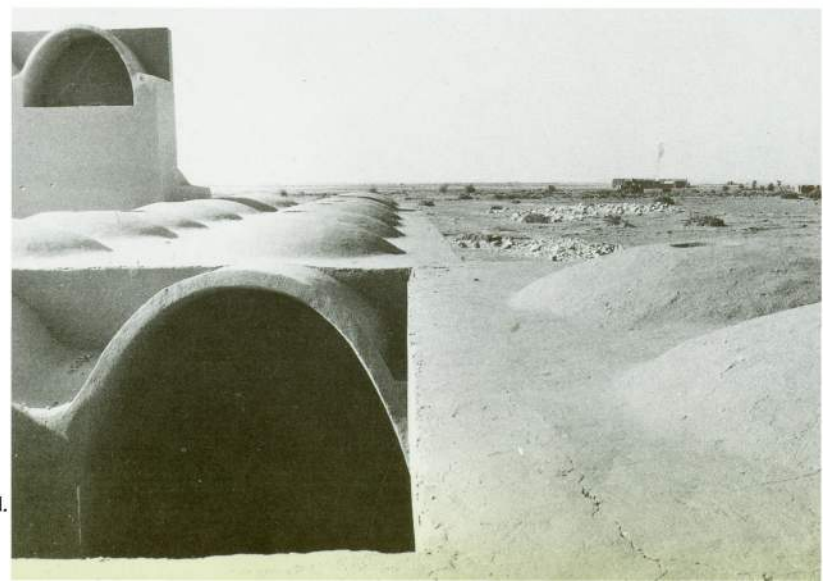


Plate 158 Roofscape with village workshop beyond.

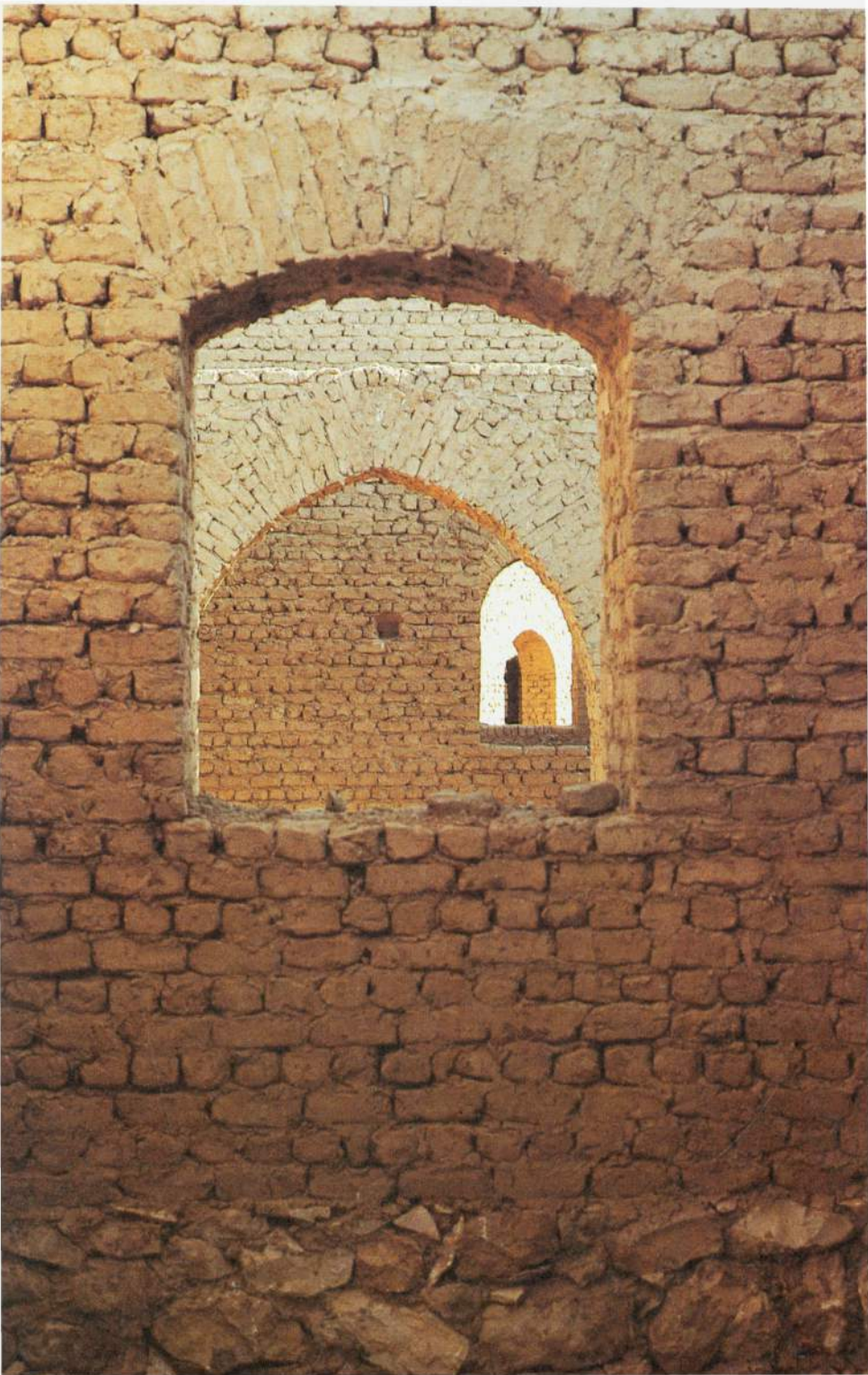


Plate 159 View of successive openings.

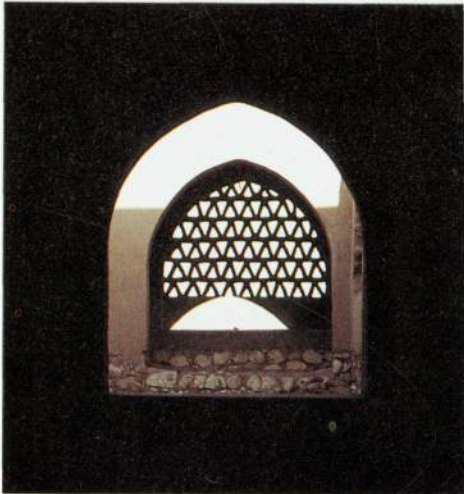


Plate 160 Unfinished windows and *mashrabiyya* in brick.

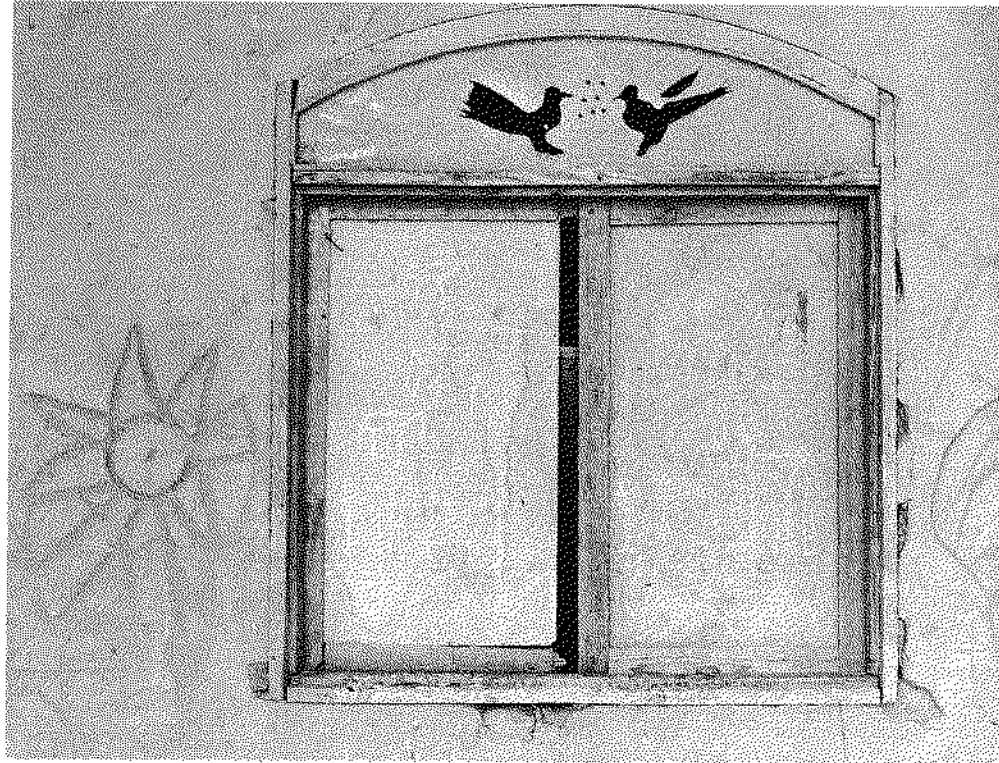


Plate 161 Window with cutout.

Plate 162 Framed light.

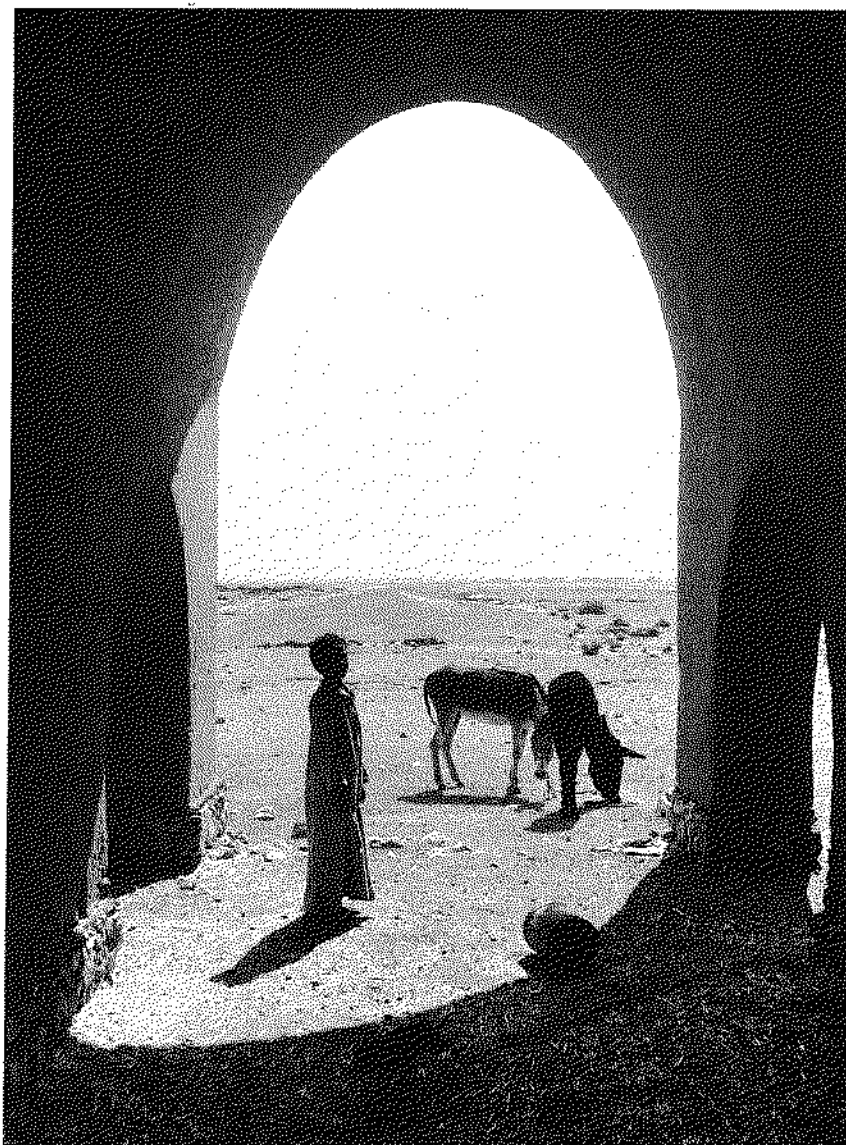
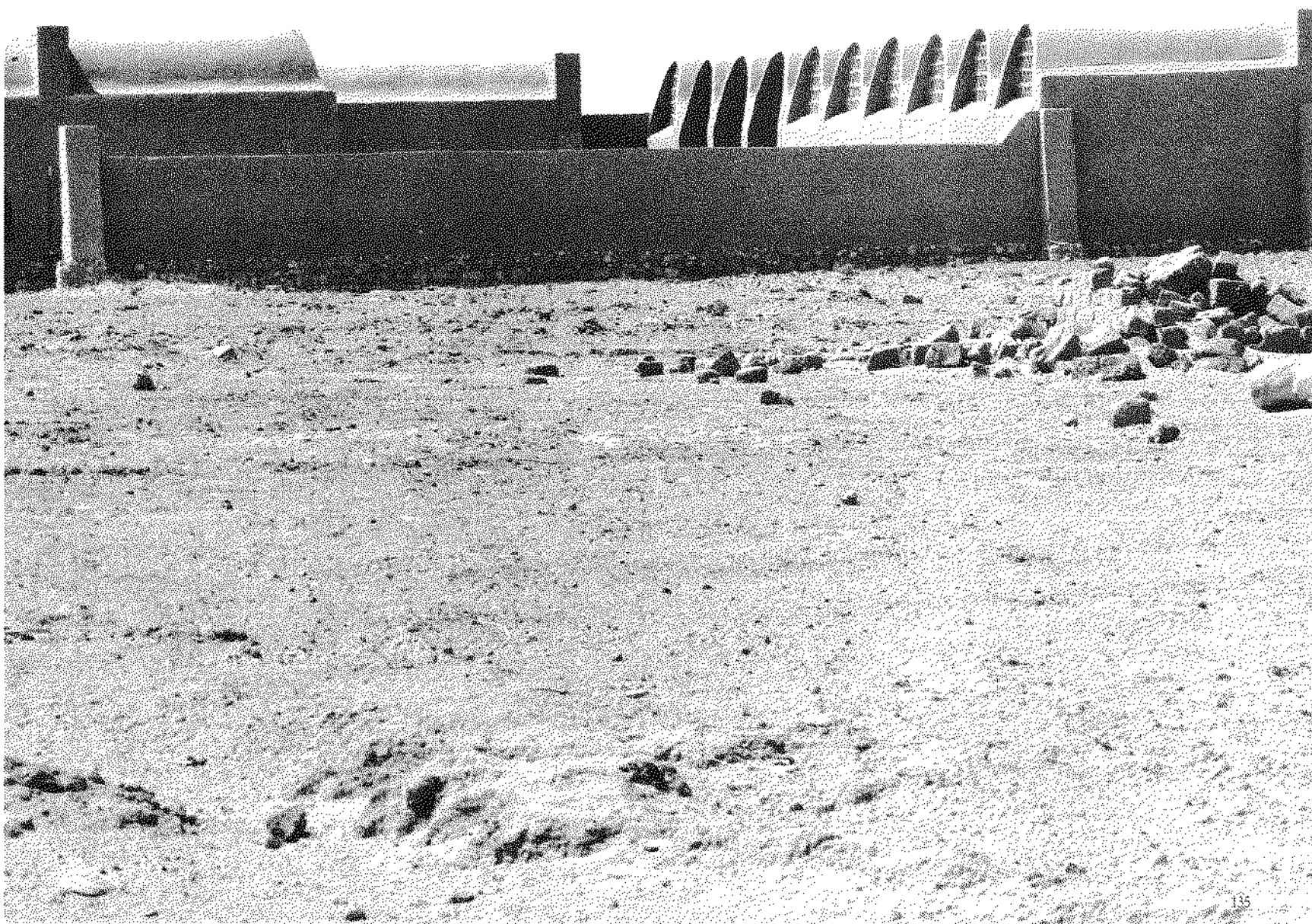


Plate 163 Village workshop.



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Plate 166
Intersection of courtyard facades.

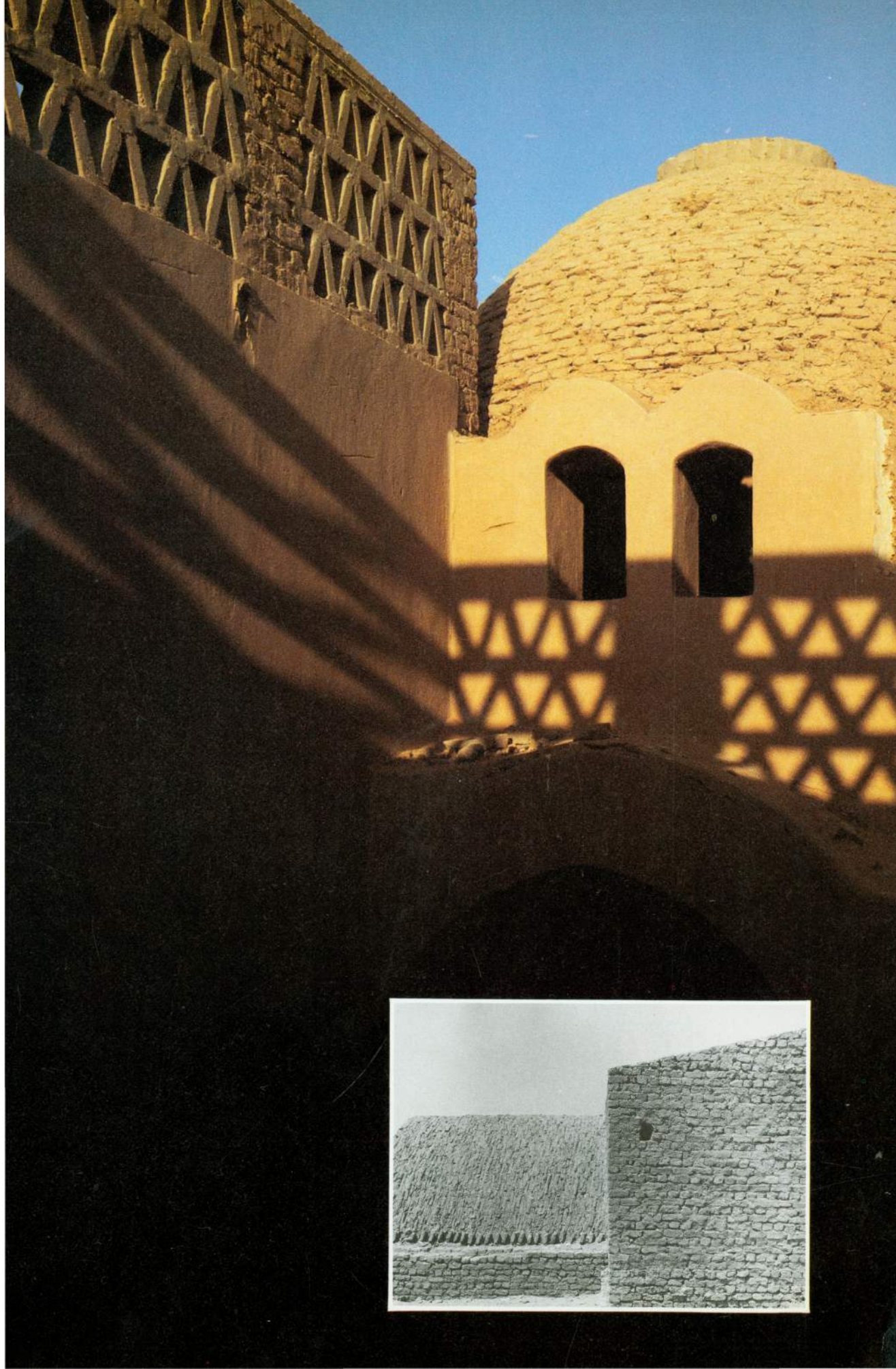
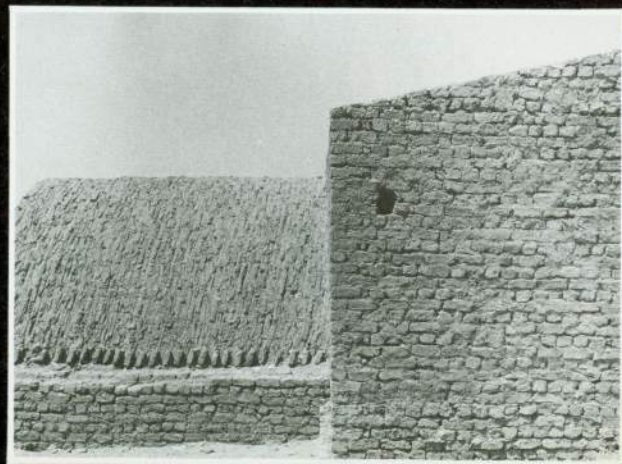


Plate 167 Masonry detail of
wind catcher and inclined vault.



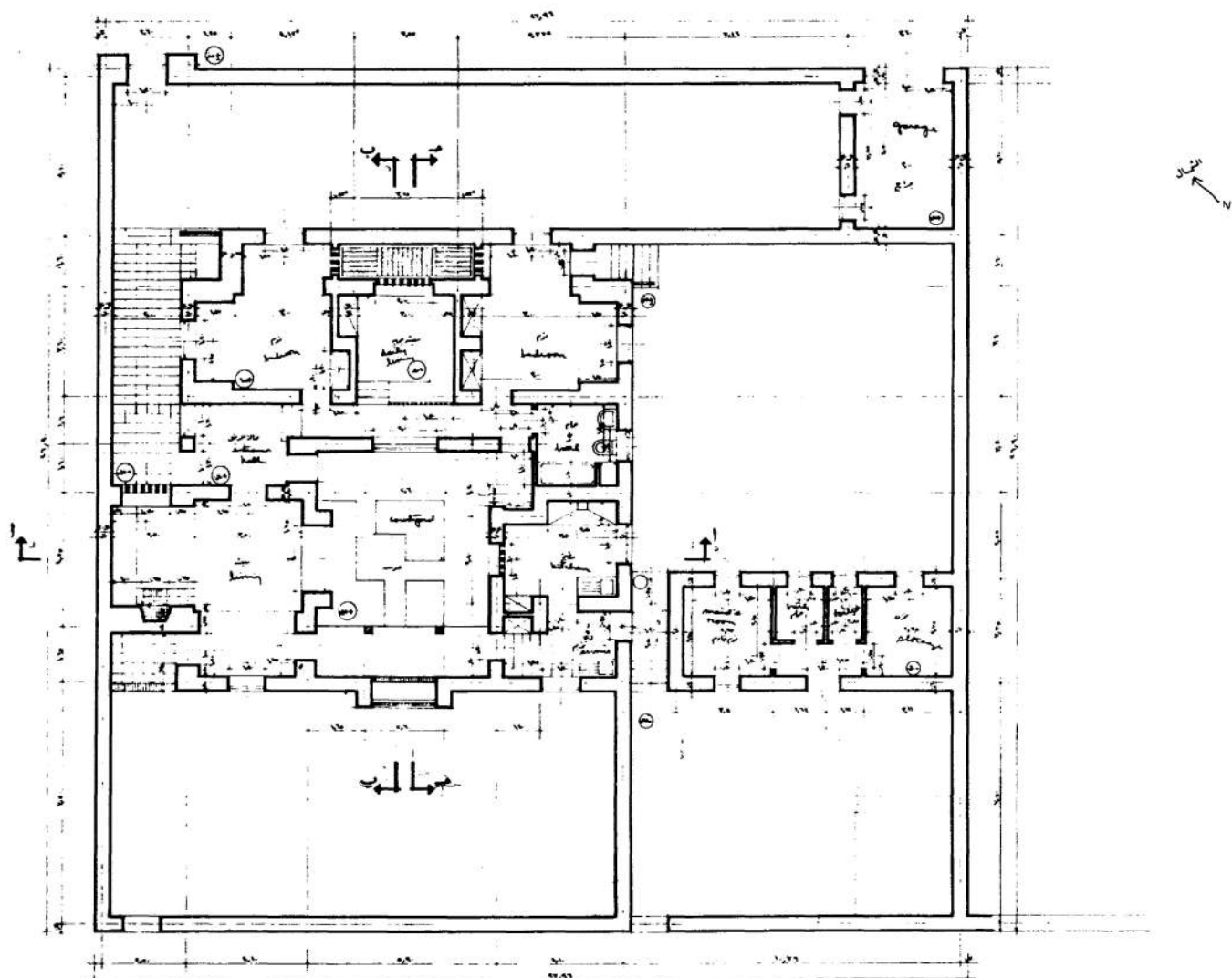


Plate 168 Plan of a village administrator's villa.

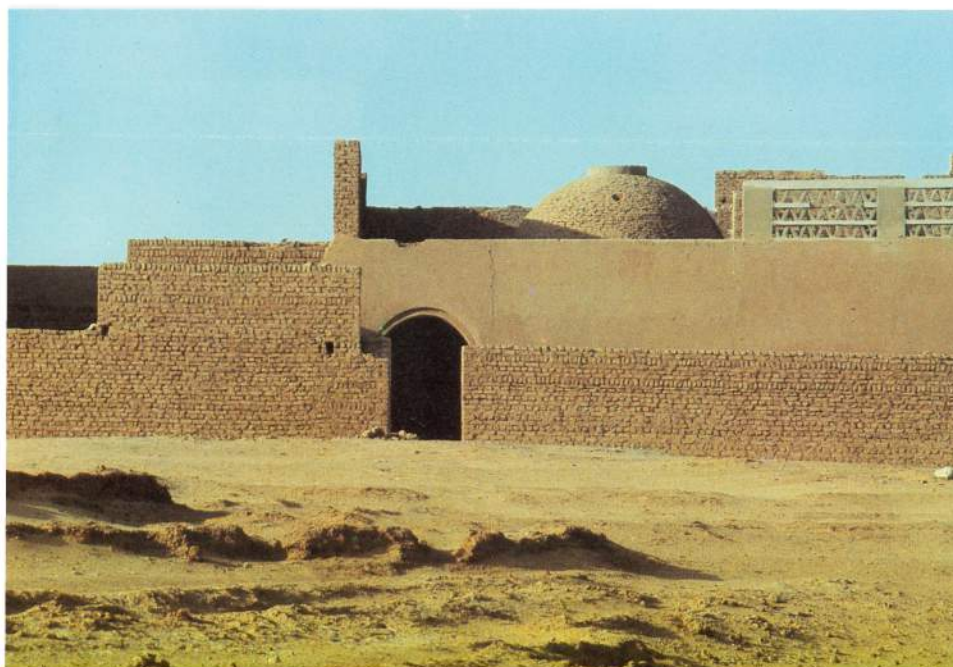


Plate 169 Villa entrance.



Plate 170 Massing viewed from the southeast.



Plate 171 Massing viewed from the northwest.

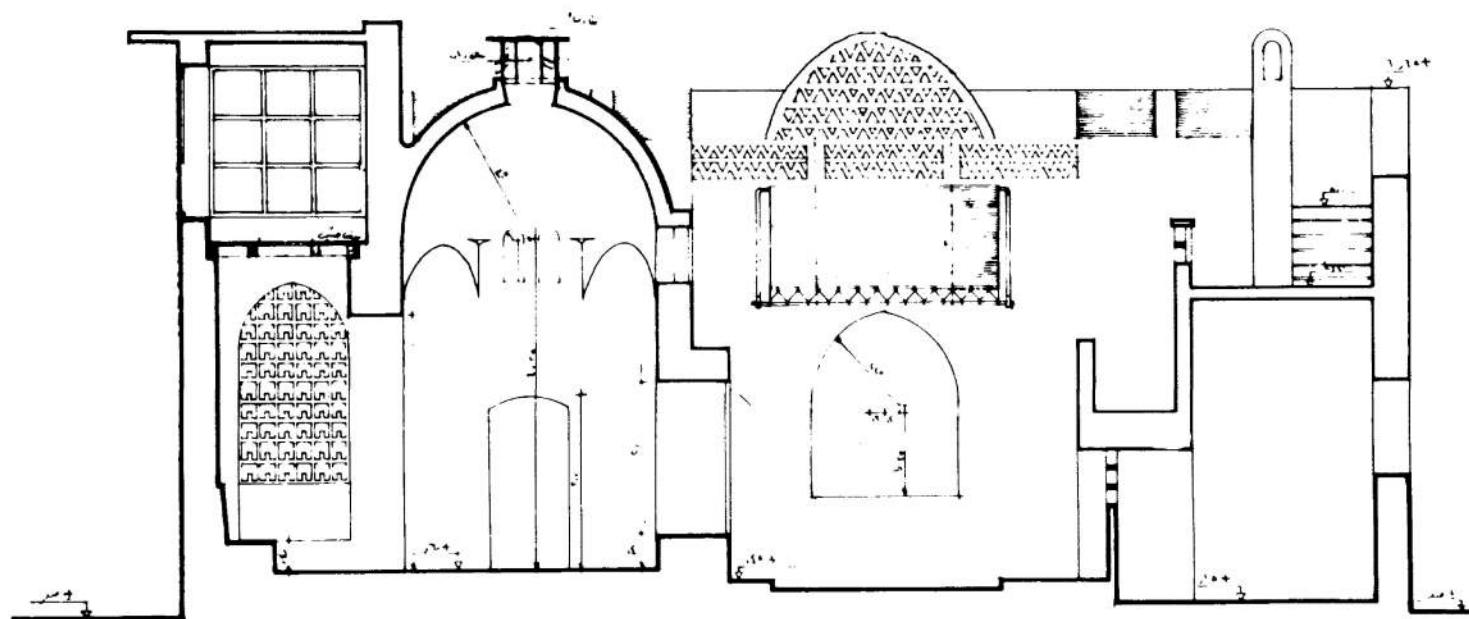


Plate 172 Section through east courtyard.

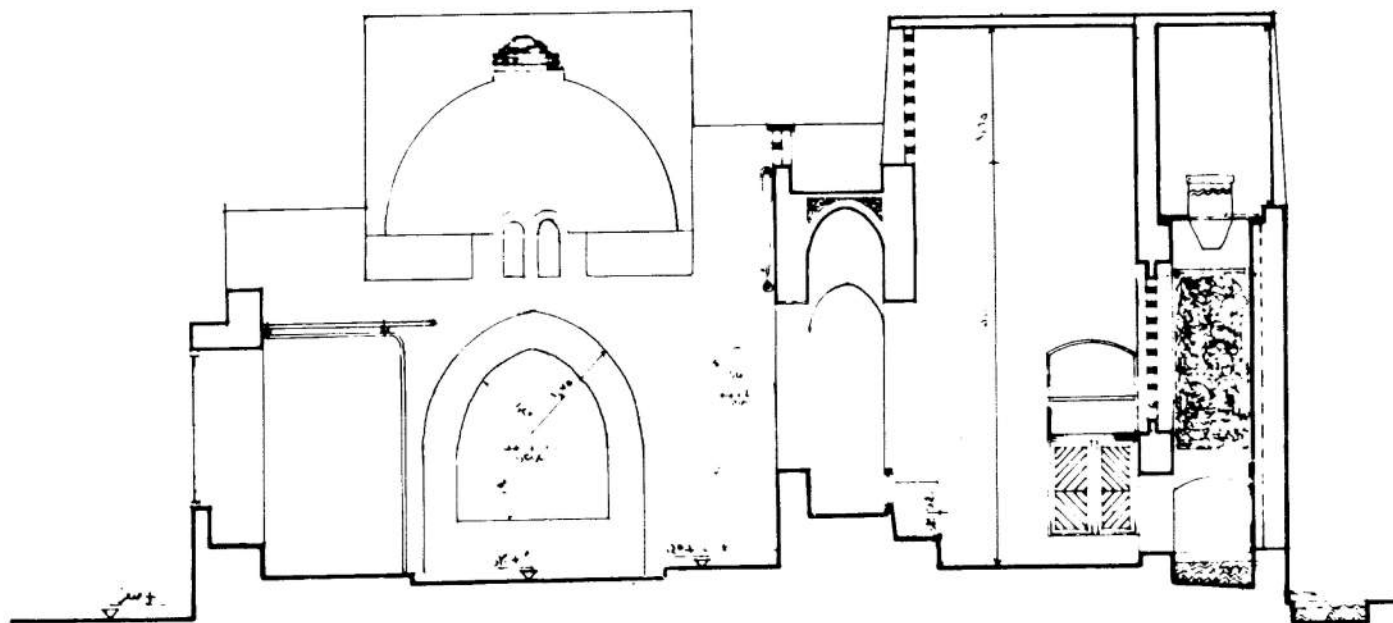


Plate 173 Section through west courtyard.

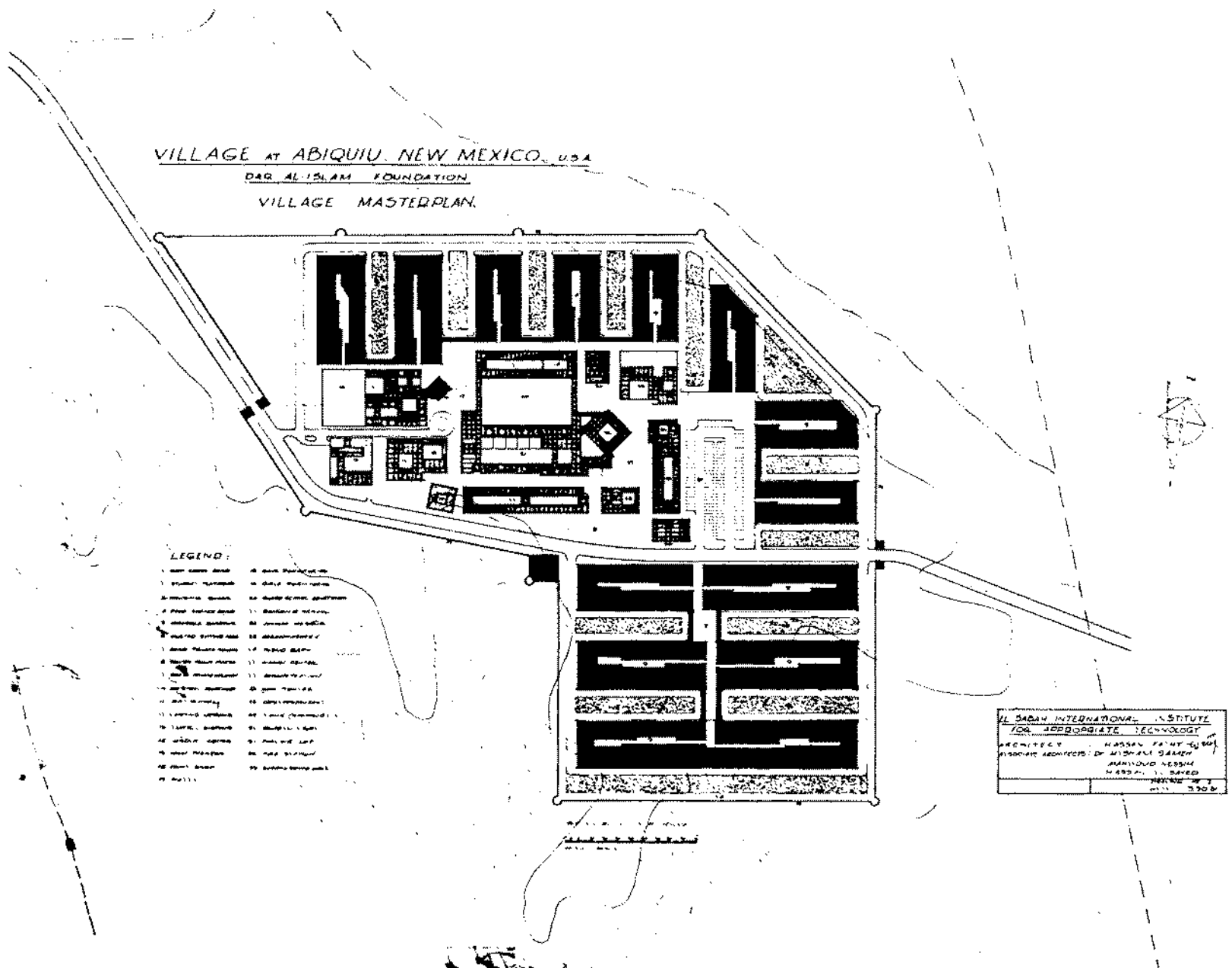
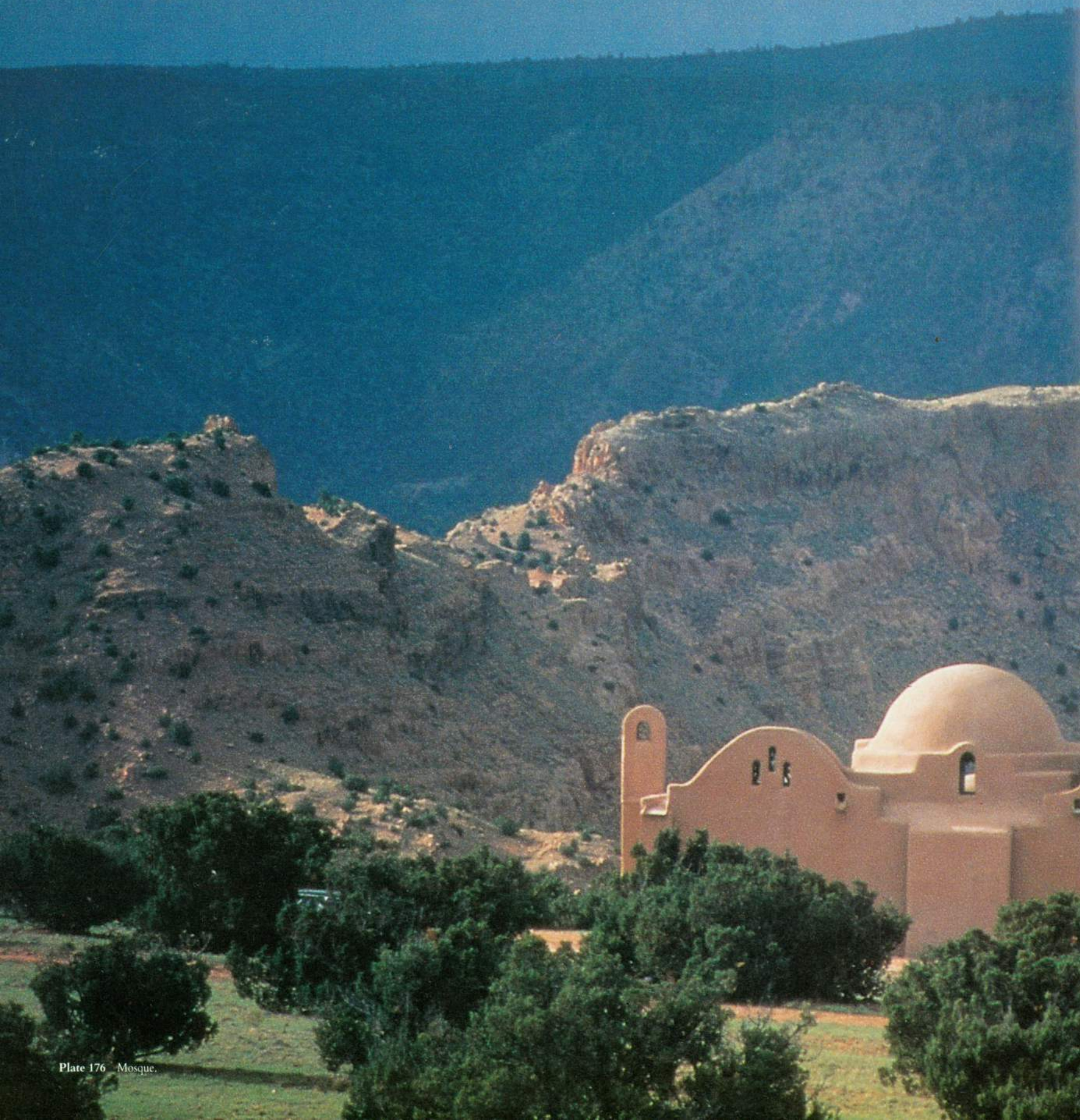




Plate 175 Construction of *madrasa* in foreground.





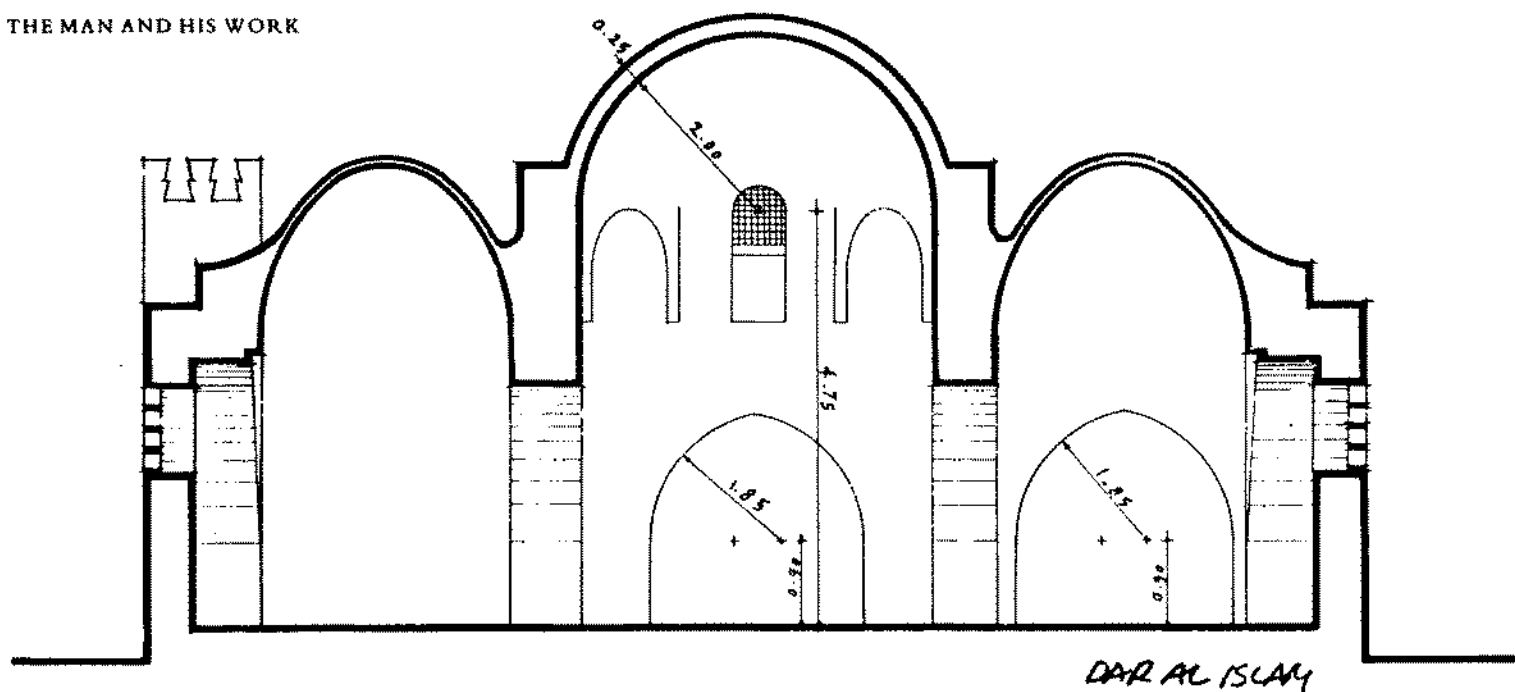


Plate 177 Section of mosque.

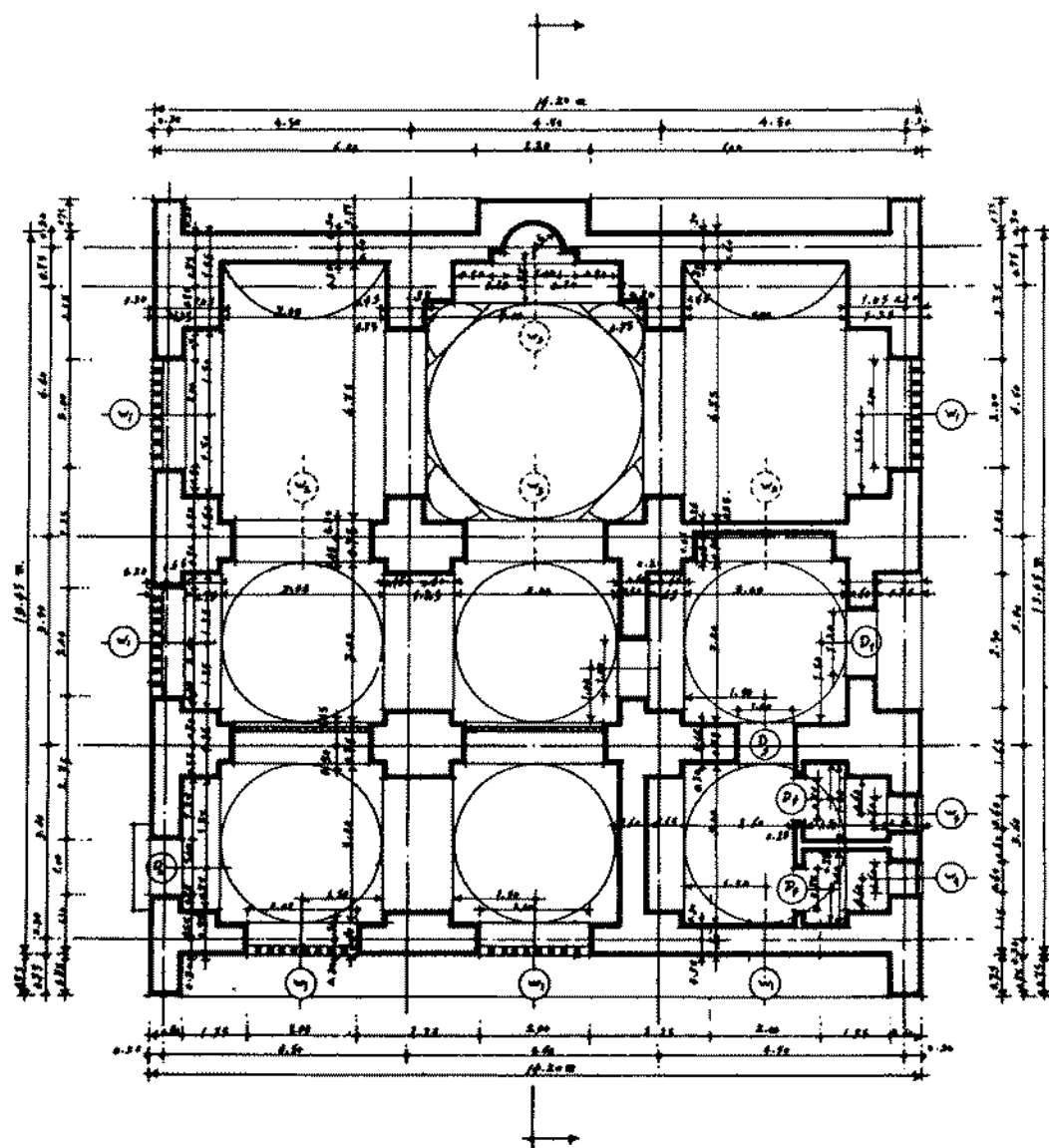


Plate 178 Plan of mosque.

Practice and Patronage

FATHY HAS NEVER ESTABLISHED a practice with the standard elements of a business: a rented office space, partners and associates, secretaries, accountants. He has practiced in a setting that resembles an atelier, energized by young architects who attach themselves to him. The relationship between Fathy and the young architects is that of master to pupils, with the pupils serving the projects on the drawing boards in whatever capacity Fathy deems appropriate. The duration of an apprenticeship is determined by the apprentice and varies from a few months to several years. It follows that those who stay the longest, learn the most and are in turn most capable of making a contribution. But few have stayed more than two years and therefore, few have come to play an instrumental part in the work.

A critical role that longer-term apprentices have played is supervising construction to ensure that a project is built according to plan, and that the quality of craftsmanship is commensurate with the design. For most projects, Fathy has had capable supervisors from among his temporary associates who have maintained close contact with the work. When that has not been the case, as with the Presidential Rest House at Kalabsha, the work has suffered. Several of the late houses – the Samy House, Mit Rehan, and the Grace house – were built when no one in the atelier was up to site supervision. Fortunately, the clients of these projects stepped in and daily visited the construction, guaranteeing the integrity of the architecture. Certainly the momentum for Fathy's work has been curtailed by the lack of an established, self-sustaining mechanism for ensuring a smooth, predictable follow-through.

One component of the follow-through has, however, been virtually steadfast: the builders. Aladdin Mustafa was among the young master masons Fathy brought from Nubia to his first project in Bahtim. Fathy has continued to use Mustafa as his assistant for nearly every subsequent project. If members of this group do not lay the supporting walls, they most certainly build the vaults and domes. Fathy has also developed a continuing relationship with a family of carpenters in Cairo – the al-Naggars – and with several glass artisans.

The artisans, builders and apprentices combined with Fathy to determine at any given time, the scope of their capabilities of service. The scope of the realization is, in turn, determined by the client. When the client is a private patron, there is only a narrow margin between the capabilities and the realization. This is because architect and patron are of one mind.

There is quite a different outcome when the client is a governmental or commercial institution. From this group, Fathy has seen very few realizations. He has designed more than twenty institutional projects for nearly as many clients. The projects range in scale from a house prototype to an entire touristic village such as the Luxor Culture Centre. (16) Of these projects, only eight were realized in part or in full. There is no simple explanation for Fathy's difficulty in seeing large projects realized. If the private projects have been facilitated by an easily identifiable client who is sympathetic with the work, the public projects have suffered in the hands of amorphous client-groups that are typically embedded in a complex bureaucracy. If the client-group failed administratively to keep pace with permits, supplies, finances, etc., the flow of work became snarled or even ground to a halt. Also, the attitudes of these groups were not always overwhelmingly favourable to the architect or his propositions. Contemporary technologies and forms originating in the developed West were generally considered preferable by the policy-makers. But, did not Fathy have powerful friends in high governmental and financial positions; if so, why were they not more supportive? Fathy has not himself been an aggressive promoter of his own services. He has not, for example, participated in international competitions which might have opened doors for his practice.

Despite difficulties, Fathy moves forward on projects both large and small with a careful eye to the past. His established rhythm of practice and teaching goes unbroken. At Beit al Fan, the apprentices continue working in the ground floor drafting rooms, drawing the new projects under design. Tea is served each day while Fathy offers insights to an attentive audience.

Fathy is receiving recognition late in life. But the spirit of ageless vitality that pervades all his accomplishments will continue to be a fountain of inspiration for many generations to come.

(16) See chronology for information on large scale projects.

IN HIS OWN WORDS



*Adapted from Architecture and Community
edited by R. Holod with D. Rastorfer*

Musicality in Building

IF THE BUILDING, the room, space I surround myself with is proportioned harmoniously, it is musical. That is why we have to introduce musicality into our town planning and into our architecture by respecting proportion, as in musical harmony.

Technical architecture must be subordinated to the natural principles of harmony and reaction to forces, as well as to the human principles of tradition, human scale, and spirituality. Technique, which can be taught in the schools, is not the same as art, which is a gift of God. Technique is like musical scales. Scales are not music by themselves. If we used technique mechanically, we would be like going to a concert and hearing someone playing the scale. There must be more – and when there is, we hear music, we see harmony, we create culture. And when technique is given to different people, just as when the scales are used by different people, the results will differ, because the cultural background of each individual or group will differ.

Building as a Spiritual Act

When man is handling raw material, natural material like stone, what is he doing? When he is dressing stone he is removing what is superficial and preserving what is essential. So he is spiritualising himself and spiritualising the stone. There is a story of a man passing three men who are dressing stone.

He asked them, “What are you doing?” The first said, “I am making a living.” The second said, “I am dressing stone.” And the third said, “I am building a cathedral.” Only the last had a sense of his task in the context of man’s desires and the material’s capabilities together, and saw beyond merely his own purposes or the technical problem of working with the stone.

The Mechanical is Death

We might look at the classical architecture that has been preserved from antiquity and imitated to find an architecture that represents an ideal combination of nature and culture, that answers local needs, and that incorporates the human scale and tradition. If you visit Venice or any other part of the Old World where there is man-made architecture from natural materials, normal materials, you will find culture. Venice is human. Walking through its narrow streets, more beautiful than the big squares and fashionable piazzas, you meet surprises in human scale and reference. When you consider the work necessary for a handmade structure; the placing of every brick was the decision to put it here as an arch, there as a wall, and so on, and in the effort of every decision was the basic nature of man. There is an aesthetic value in this method of

working by hand. If you take the opposite method of prefabrication and you just have bulks which you carry with a crane and set with a crane, you see that man contributes nothing. Too often now we build in this way. We build one house and put six zeroes next to it, making it a million. But the mechanical takes away from human harmony with nature, materials and tradition; the mechanical, like symmetry, is death.

Civility in Building

Architecture is a communal art, because we put the building into the city to be seen by everyone; architecture, in fact, forces itself on everyone. If a bad painting is made, it will end up on the painter's studio wall, and bad music will never have the chance to be played in the concert hall. But the architect can, to my mind, be like a dictator, because people are forced to pass through the door he designs, and when he puts anything that is ugly in his building, it is a pity, because it is forced upon the community. An ugly or senseless building is an insult to every gentleman passing in front of it; it says: "This is your worth, Mister."

But beautiful architecture is an act of civility towards the man who comes to the building. It is as if the buildings were bowing to you at every corner, as in a minuet. Every building should add to the culture of man. But how can it do this when it does not respect human reference and human scale? We should reintroduce man into our architecture; we must reintroduce human scale, human needs, and human tradition.

Forces of Climate

For example, in architecture, the element of heat would, as a force, create a different form than would the element of cold. We would not expect an Arab in the desert to have a Swiss chalet with a gabled roof to run off rain and snow, because he has no rain or snow; he sleeps on the roof.

When you have a 30°C difference between day and night, you have to live in coolness. So here is the importance in the forms which the different people produced reacting with the environment – building for heat, for warming or for cooling. And all my work has been in the hot, arid zones in which I have been designing for cooling. I have seen that what serves the form for heating cannot serve the form for cooling. *(From remarks recorded by The Aga Khan Award for Architecture at Aiglemont, France, April 1978).*

Housing as Refuge

Whenever we build a human settlement, whether a village of fifty families or a city of a million, the inescapable and basic unit is the individual family dwelling,

and in town just as in village it has the same function. The house, more than sheltering us from rain, sun, dust, and other elemental afflictions, shelters us from the world. A house is not a machine for living in; it is a private world, dependable, unchanging, a constant kindly refuge in the cultural avalanche that we are pleased to call civilization. If the family is the fundamental social group – the interpreter and buffer between the individual and society – then the house has an analogous function as between the individual and the world of things. It is the objective and tangible projection of the family, and the most important thing in a family's or an individual's life.

Even in a village it is desirable that the houses should be restful, private, human in size, and related simply to their environment; how much more does a townsman, whose daily labour is not with the elemental realities of ploughing and harvest, but rather with the artificial business of office and factory – how much more does he need some structurally comprehensive refuge to protect his individuality and to calm his spirit.

Let us not be too frightened by the size of the problem to make our solutions human. (*From "The City of the Future, the Dwelling within the Urban Settlement", 1960*).

Technology Imposed upon Planning

In the policy of rural housing and village rehabilitation we should merge the technology of building with the aims of philosophy in the planning of new settlements and old, where men will be able to realise their true potentials. Just as each village in Nubia, when the people were given the chance in 1934, has developed its own personality and flavour, and made its distinctive contribution to the understanding of the nature of culture, so we may expect each one of the modern villages to develop its own flavour of cultural life, starting with the very buildings that make it, and thus enrich the lives of its inhabitants and of the country. And, just as we have brought down the physical planning to the level of the brick, we have to bring our socioeconomic planning to the level of the family and the individual man.

Above all, we have to avoid the attitude taken by some planners, who take the easy way out and try to transplant the town into village, succeeding only in creating a suburban environment instead of creating a superrural one.

In using earth and vaulted roofs resides the only probable solution to the problem of peasant housing in the hot arid zones. In this way we shall have

subjected the technology to the economy of the people, and not the other way round. To do this we have to secure the collaboration of three technicians, the soil mechanic, the structural engineer specialised in shell structures and the architect acquainted with the exigencies imposed by these techniques on the design.

As a matter of fact, these structural impositions save the architect from the pitfalls of futile superficiality. In a way, they play a role similar to the classical orders in the architectural design, as a safeguard from the aesthetic point of view. (*From "Rural Settlements in Developing Countries", Habitat Conference, Vancouver, B.C. 1976*).

Mosque Architecture

Space in the mosque has to be two-directional; the one vertical tending upwards linking it with the sky, and the other horizontal linking it with Mecca. The horizontal direction is due to the fact that Islam is ecumenical; the idea is expressed by having one sanctuary for all Muslims, the Kaaba in Mecca. This direction is indicated by the mihrab, or niche, but this is not sufficient, and it has to be expressed by the building orienting itself architecturally towards Mecca.

The new techniques of construction and the new building materials such as reinforced concrete, steel and plastic have freed the architect from the constraints that traditional materials such as granite, marble, stone, wood, and brick imposed on him in the past. This freedom has offered the modern architect great facilities and possibilities that are difficult to resist, but it cut him off from the benefits of the accumulated experience of the generations that have crystallised into traditions.

All that goes into the design, such as the decoration, texture, materials, form, etc., has a symbolic value in tradition. Tradition embraces architecture in its totality with all the elements that together make the religious building; design-concept, space, shape, decorative motifs, colour, light, and even acoustics in the building.

Here, the modern architect has to exercise his creative genius and his artistic sensitivity in creating new forms that suit the new materials without losing touch with the established tradition, preserving the implicit and not overlooking the same spiritual and social virtues or the cultural values as in the past. (*From Hassan Fathy, "Mosque Architecture", undated typescript*).

Filling the Gaps in Arab Design

Designing in the Arab style for today presents the architect with various intricate problems. Architectural design becomes some sort of scientific research. For many reasons this style has been abandoned and left stagnant for more than 200 years. So, the architect willing to come back to this style and bring it up to date has to fill the gap and catch up with what should have been done during this lapse of time *were* it normally developing.

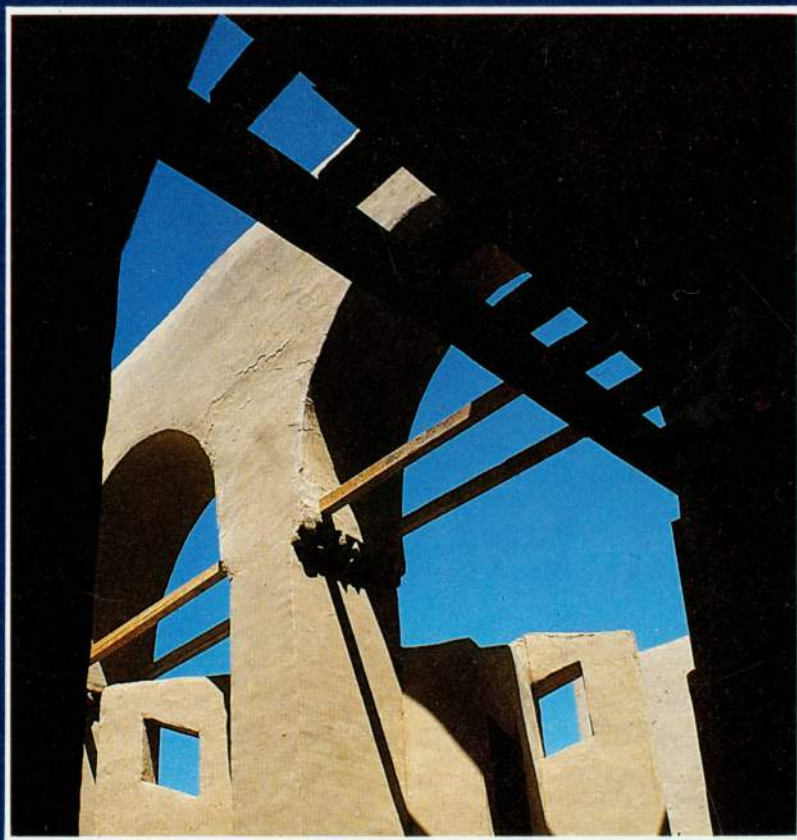
Today, the design, the technique, and tactics of building, etc., have changed completely. In the past most of the work was done almost solely and directly by the craftsman builder; nowadays we find every bit of work has to be designed and drawn by the architect. (*From Memorandum from Hassan Fathy to Maj. F. Ashdown, Project Manager, MDDED-M, Subject: V.I.P. Villa, Tabuk, 8 October, 1975*).

Arab Aesthetics

The proportion of the aesthetic to the functional in the Islamic architecture differs from that of architecture in Western countries. To show his aspiration toward the Divine, the Arab developed an aesthetic of abstraction, since the barren landscape offered no natural model on which to base his imagery. The natural image, to which he remained sensitive, was joined with the stylised interlacing of geometry and pattern.

The effect of this environment can be seen in architecture, where man decorated his work as a response to what he saw in nature. For example, in the typical courtyard house, open space is closed entirely to nature at the ground level, which is necessary to shelter from the heat and glare. The symbolic idea man added was that the four corners of the courtyard would symbolize the four columns carrying the dome of the sky, the only kindly element of nature the Arab observes. We also know, according to aerodynamics, that wind blowing above the house will not enter the courtyard, but will pass over and create eddies inside. Thus the courtyard will retain the cool air that has settled there, and the air will seep into the rooms and walls, cooling the house. This represents the mercy of God coming from the sky, and explains why in Islam the Deity resides in the sky. Thus the courtyard house did not arise from something spiritual alone, but it added the spiritual to the functional. (*From remarks recorded by The Aga Khan Award for Architecture at Aiglemont, France, April 1978*).

APPRECIATIONS



*By A. W. El-Wakil, N. Hassan, N. Durkee, S. Zulficar,
Development Workshop*

RARE ARE THE PEOPLE who, through courage and integrity, preserve their ideas and convictions in the face of the prevailing ideology of their epoch. With the advancement of modern technology, the space age and the consequential notions of progress, when architects as Le Corbusier and others started to express the new ideology in concrete images, Hassan Fathy turned to the timeless and universal values of architecture, intelligently using and adapting indigenous techniques and materials, he created an architecture that emerges from the native soil, crystalline in its geometrical forms.

Passionately insisting on the evaluation of the relationship between man and the totality of the built environment, Hassan Fathy refused to blindly accept any fashionable school of thought, any prescribed style. His critical analysis revealed the superior and lasting values of traditional building as opposed to the arbitrariness of modern architecture.

The years spent together with Hassan Fathy symbolise a constant struggle to penetrate through the gravitational pull of the modern movement and its egocentric nature. To know Hassan Fathy is to seek the essential, to realise the difference between the particular and the universal, the ephemeral and the lasting.

May our generations strive to fulfil his wish by realising “. . . the intrinsic nature of their architectural heritage. In so doing, they will reap the rich rewards of the accumulated experience that was left to them by their ancestors and will produce enduring works of art. Let them not suppose that this tradition will hamper them. When the full power of human imagination is backed by the weight of a living tradition the resulting work of art is much greater than any that an artist can achieve when he has no tradition in which to work or when he willfully abandons his tradition.”

Abdel Wahed El Wakil
El Wakil Associates, London, England

MY FIRST ENCOUNTER with Hassan Fathy was through his written words – words that touched, reached out, unlocked a door, lifted the veils from the mind – to reveal a Sufi landscape – pure, luminous, lunar – words which pulled at chords, rang true and clear.

How many tears of joy were shed by this open invitation to share in this vision of a better world. The way was opened for myself, as for so many others, to start on a long path towards understanding what is beauty, what is honesty, what is essential in life.

As I think back, (and look forward) perhaps there has been a progression for me from a concern with beauty (outer form), to a confrontation with honesty (the realisation that concern with form without concern for humanity is meaningless, hypocrisy), a grasp of the essential (trying to discard the non-essential).

Hassan Fathy is such a master, a renaissance man, a superstar, standing above us in understanding, in erudition, in cultural values, in creativity, in dedication, that despite my long association, the many conversations, writings, excursions with him, recorded and unrecorded at my disposal, I cannot portray, describe, or define Hassan Fathy. I can only perhaps reveal Hassan Fathy as I see him, as he influenced my life – an influence not always conscious, often subtle and felt from a distance.

Perhaps that is all one can capture – each of us – a reflection – a facet of the many fascinating aspects of his personality, his ideas, his works – as we have, each one of us, experienced it. Each one of us who has been enriched by our encounters would have liked to share it with others in this work. Perhaps that is Hassan Fathy's most important message to us – how to give and how to share.

Nawal Mahmoud Hassan
Centre for Egyptian Civilisation Studies, Cairo, Egypt

AS ONE WHO HAS for the past five years been actively involved in the building and construction of a large complex designed by the master builder, Hassan Fathy, I have had the opportunity to see many of the ideas and ideals enunciated in his writings made manifest – experiencing some of the frustrations that Hassan Bey has had to endure over a lifetime, in the attempt to build buildings which are in concept, materials and method of construction contrary to the mechanistic modern order of client, architect, contractor.

When I first visited Hassan Fathy it was with the hope that he would be able to aid us with ideas for our initial building: a masjid to be constructed of adobe. I had not reckoned on his magnanimity. He gave us everything we had hoped for and much more. As I explained our project to him a certain light came into his eyes and he said, “My dear, I will design the masjid, I will send two master builders to you, and we will use the building of the masjid as a school for training future builders. Moreover, I will not charge a piaster for this as it is for Allah.”

This was the beginning of a deeply rewarding relationship, which has in the passing of time gone way beyond what I could have imagined. Seven months later, Hassan Bey was in New Mexico with Allahadin Mustapha and Abdul Jalil Mousa and we were building domes and vaults during a training period attended by over 300 local builders. During this time he was asked to commence work on a master plan for the entire plateau starting with the *madrassa*. One year later he returned for the dedication of the completed masjid and the laying of the cornerstone for the *madrassa*.

Judged by the standards of megaprojects under construction worldwide, the accomplishments are modest. Viewed from a traditional perspective, what has been accomplished is extraordinary. The tattered remains of the old order of master builder, craftsmen and apprentice is being restored, and hand built mud brick centre of worship and learning is slowly rising (for the earth cannot be rushed), built by local builders and craftsmen, Muslim and non-Muslim. Simultaneously, as each quadrant is completed, it is inhabited by worshippers, teachers and students who are discovering for themselves what Hassan Bey meant when he wrote: “If love goes into the work it will always show.” Truly Hassan Bey has given us buildings where the “soul has a chance to grow and to fly”.

Abdullah Nuridin Durkee,
Dar al Islam Foundation, Abiquiu, New Mexico, USA

IN THESE TIMES of technological change when architectural expression has been transformed into the image of what is considered modernity, Hassan Fathy has stood almost alone (along with his colleague Ramses Wissa Wassef) extolling the virtues of cultural authenticity and returning to traditional forms and methods proven valid over the centuries.

His attributes surpass those of architect or builder, extending to those of the philosopher, the poet, the anthropologist and, above all, the social reformer. Hassan Bey is an architect with a social vision whose professional life has been shrouded in humility, in concern for the interests of the rural poor. Yet, from the outset, his professional path has been strewn with obstacles. His experiments in cooperative building and self-help housing at Gournah and Bariz villages were thwarted by prejudice against mud brick and by the red-tape of officialdom. Nor were Hassan Fathy's relations with the architectural establishment in Egypt more fruitful. The latter has regarded his architectural ideals as romantic, anachronistic, controversial, irrelevant, or non-lucrative. His achievements have received scant mention in the Egyptian press, which has largely ignored his message.

It would thus seem that Hassan Fathy has failed to have an impact on his own country. Yet paradoxically, considerable enthusiasm and recognition has come from abroad. His pioneering efforts to preserve the character of regional architecture and to promote cooperative building have been rewarded with international distinctions.

More importantly, his message has been espoused abroad by enthusiasts who have built accordingly in Algeria, Mauritania, Upper Volta, Niger, Iran, Saudi Arabia, and even so far away as New Mexico. Moreover, his book *Architecture for the Poor* is now being used as a text in some American universities. This is testimony that his invaluable legacy constitutes inspiration for younger architects whose prime concerns are to preserve cultural identity in architecture while providing appropriate and affordable shelter for the disinherited of this world.

In this, Hassan Bey's dedication and tireless efforts in the service of a noble cause will have borne fruit.

Saïd Zulficar

The Aga Khan Award for Architecture, Geneva, Switzerland

AS YOUNG ARCHITECTURAL STUDENTS concerned with problems of poverty, Hassan Bey offered us an approach that at last promised to marry our architecture with those concerns. His bold vision and practice pioneered the idea that the building activities of the poor and the apparently humble technologies they used, were to be learnt from and not dismissed, that rigorous scientific methodologies should serve mud as much as machines, and that the architects' role lay in villages at least as much as in villas. He made his point when ridicule was the result and years before appropriate technology and housing the poor became the fashionable thing to do.

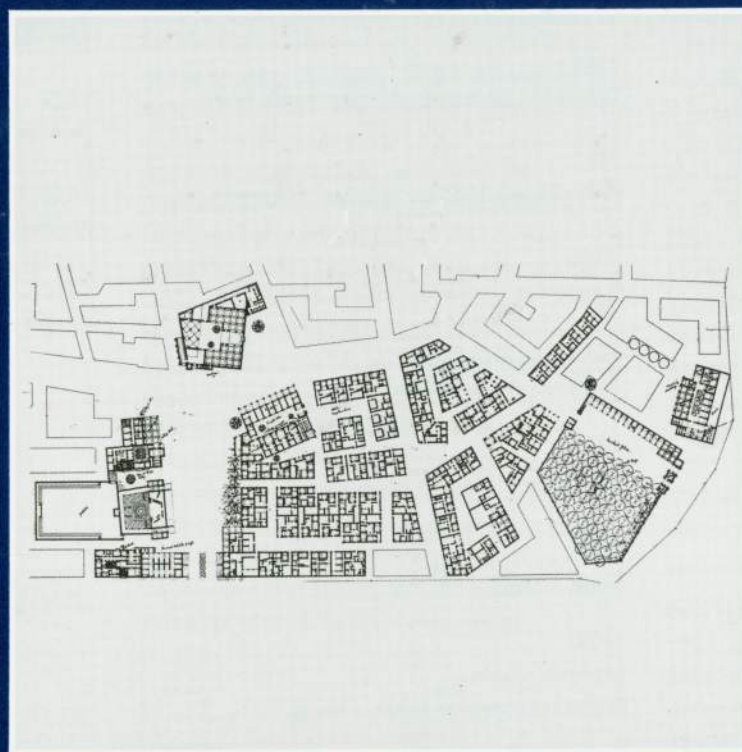
His truths endure but his contradictions remain: implicit in his practice and those of others, like ourselves, fired by his vision; the contradictions of an elite committed to their class yet wishing to serve the poor, the architect in love with design yet reaching to those for whom design is no priority, the technologist strong on science but mystified by the economics of technology choice, and the pure professional unprepared for the politics of vested interests that shape decisions.

It is a lasting tribute to Hassan Bey that he, more than any one, teaches us from both his successes and his failures, what it is we must know to serve architecture in development.

Thank you Hassan Bey.

Farokh Afshar, Allan Cain, Mohamad Reza Daraie, John Norton.
The Development Workshop, Toronto, Canada

CHRONOLOGY OF WORKS 1937-1984



CHRONOLOGY OF WORKS: 1937-1984

Built projects are in **bold type**.

Projects underlined are described in the main part of this work.

1937

Bek House, Fayum
Kallini House, Minya

1940

Gabel House, Giza

1941

Society of Agriculture Farm, Bahtim

1942

Prototype House, Ezbet al-Basry
Omari Farm, Fayum

1942

Said House, Marg
(additions 1945)

1945

Seif Al Nasr House, Fayum
Rest Houses, Safaga

1948

New Gournia Village, West Luxor
(1983 theatre restored)

1950

Lu'Luat al-Sahara, Hafez Afifi
Monesterly House, Giza

1952

Stopplaere House, West Luxor.

1955

Ceramics Factory, Garagos.

1957

Primary School, Fares.

1959

Housing Complex, Iraq (with Doxiades Associates).

1960

University, Algeria (with Doxiades Associates).
Mosque, Pakistan (with Doxiades Associates).

1962

Carr House, Athens, Greece.
Training Centre, Kharga.

1964

Cultural Centre, Luxor.

1965

High Institute of Social Anthropology & Folk Art, Luxor.

1966

Prototype Mountain House, Saudi Arabia.

1967

New Bariz Village (partial), Kharga Oasis.

1971

Centre for the Development of the Northern Shore, Sidi Krier.

House at Sidi Krier
Mehrez Apartment, Cairo

1972

Polk House, Aspen, USA.

1973

Riad House, Cairo.

1974

Mosque, Cairo.
Reconstruction of Sohar, Oman.

1976

"Al-Mushrabiyya", Giza.

1977

Nile Festival Island Resort, Luxor.
(redesigned 1982)

1978

Narpin Rest House, Kharga Oasis.
Hotel Rebat, Kharga.

1979

Samy House, Dashure.

This chronology is as complete as possible, but there may be some omissions.

1980

Prince Sadruddin Aga Khan House, Aswan.
Al- Naggar House, Spain.

Abdulrahman O. Nassief House,
Jeddah, Saudi Arabia.

1981

Mit Rehan, Shabrament.
Presidential Rest House, Garf Husein.
Dar Al Islam, New Mexico, USA.

1983

Seddik House, Giza.

1984

Sheikh Nasr House, Kuwait.

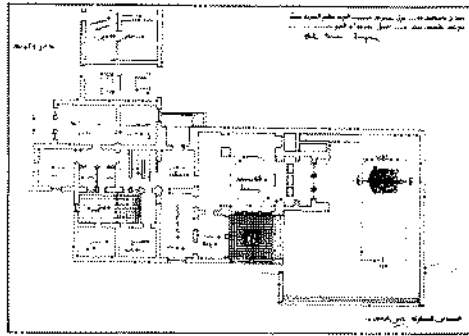
1984

Greiss House, Abu Sier.

Bek House

c. 1937, *designed*.

Sited for Sedmant al Gabal in Fayum, A.R.E., and designed for Tahir Emery Bek.

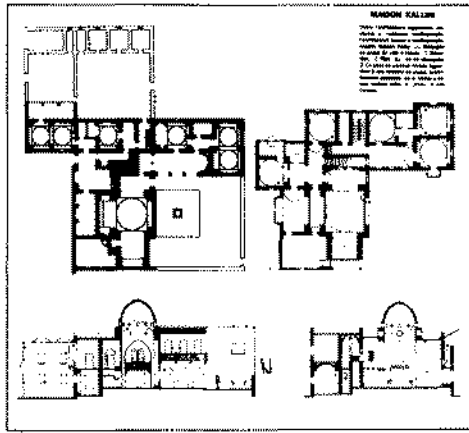


Ground level plan. Bek House.

Kallini House

c. 1937, *designed*.

Sited for Minya, A.R.E.



Ground and first level plans. Sections. Kallini House.

Gabel House

c. 1940, *constructed*.

Sited in Giza, A.R.E., and designed for Tusan Abel Gabel.

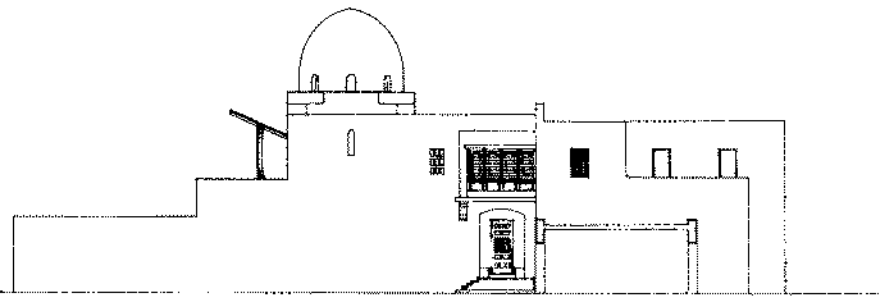
This spacious city residence is surrounded by garden walls and incorporates *mashrabiyya*, tile work, and patterned floors into a plan form similar to the Bek and Kallini houses. Constructed in reinforced concrete, the house remains in excellent condition.

Society of Agriculture Farm

1941, *constructed*.

Sited in Bahtim, A.R.E., and designed for the Royal Society of Agriculture.

Construction of the farm, including housing, began before the architect visited Aswan and first saw the inclined vault technique routinely practiced. Because earlier attempts at enclosing the walls had failed, the architect brought a



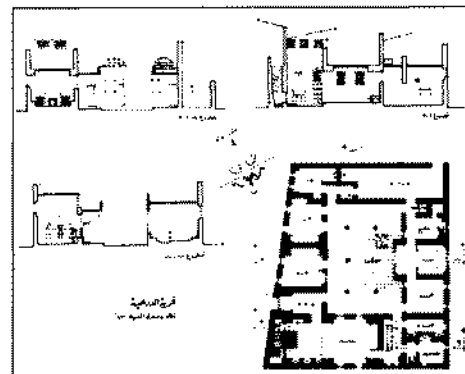
West elevation. Bek House.

team of masons from Aswan to Bahtim to finish the project.

Prototype House

c. 1942, *constructed*.

Sited in Ezbet al Basry, A.R.E., and designed for the Red Crescent Ladies' Committee on behalf of local residents. When a flood swept away twenty-five houses in the hamlet of Ezbet al Bay, the Red Crescent Ladies' Committee, a charitable organization, undertook the responsibility of rehousing the homeless families. Fathy offered his services to the committee. He planned to replace the poorly engineered mud houses that had been lost with well-made mud brick structures on stone foundations. One house was built according to the architect's design as a prototype to demonstrate the financial and architectural advantages of the technology. Unfortunately, the committee did not continue their project with Fathy; rather, they engaged an architect who demolished the prototype and erected twenty concrete houses at approximately seven times the cost of Fathy's proposition.



Ground plan and sections. Prototype House for al-Dareeya.

Omari Farm

1942, *constructed*.

Sited in Sedmant al Gabal in Fayum, A.R.E., and designed for Taher Omari.

The wood roofs of the Omari Farm had repeatedly been stolen by local peasants who coveted the material. This project involved

enclosing the stables, storehouses and workers' housing with mud brick vaults and domes.

Said House

1942 and 1945, *constructed*.

Sited in Marg on the outskirts of Cairo, A.R.E., and designed for Dr. Hamid Said.

The house was constructed in two phases. The first phase, completed in 1942, was to serve as a weekend retreat for Dr. Said and his wife, both of whom are artists. Built within a large palm grove, the original house consisted of an *iwan*, a dome, and an alcove. When the decision was made to use the house as a fulltime residence, a bedroom, dining area, gallery, large studio, and services were added around a courtyard.

About the house, Dr. Said said, "It is a kind architecture – not aggressive – a humble architecture. It grows with knowing, like a good friend."

Seif Al Nasr House

1945, *constructed*.

Sited on the lakeside in Fayum, A.R.E., and designed for Hamdi Seif al Nasr.

The building was designed to serve as a rest house for a landowner with large holdings in Fayum. In addition to the rest house, a grander residence was planned but never executed (see plate 5). Uncharacteristically, this house has no interior courtyard.

Consequently, rooms open directly onto the landscape. The only house to have incorporated a wooden *malqaf* (wind catcher) in its construction, its air shaft has since been altered by infilling it with a stair to the roof.

Rest Houses

c. 1945, constructed.

Sited on the Red Sea in Safaga, A.R.E., and designed for the Chilean Nitrate Company.

New Gournia Village

1948, constructed; 1983, theater restored.

Sited in West Luxor, A.R.E., and designed for the Department of Antiquities of the Egyptian Government.

The most renowned, fully implemented and successful of the public projects. The best description of New Gournia's planning theory and implementation strategy is to be found in the book written by Hassan Fathy, *Architecture for the Poor*. Construction of the village began with public buildings – the mosque, *khan*, market, village hall, theater, crafts exhibition hall, and boys' school – and terminated with the housing. The master plan was more ambitious than the realization and included a craft school, girls' school, dispensary, and womens' social center, police station, *hammam*, church, sporting club and artificial lake, and park. Less than one-quarter of the housing on the master plan was erected.

Many conclusions have been drawn about the perceived success and failure of New Gournia in the absence of a thorough post-occupancy evaluation. Even the architect, in his own book, did not look at the village beyond its initial construction, though the book was written nearly twenty years later. The process of habitation, beginning in the late 1940's, was not spontaneous. At first, only the poorest area residents, those living in little more than caves, moved to the new housing provided by the government. (As they were not forced to leave, prospering households in Old Gournia chose to stay in the homes they had continuously occupied and enlarged over several generations.) Other families slowly moved into the new village, possibly drawn to the economic opportunities the site offered through its proximity to an active tourist trade or in response to the general housing shortage experienced by Egypt in the past few decades. The picture given by New Gournia in 1983 is that of an independent community with a strong sense of self identity.

Lu' Luat al-Sahara

1950, constructed.

Sited in Hafez Afifi-Village, A.R.E., and designed for Hafez Afifi-Pasha.

Really a community unto itself, Lu' Luat al-Sahara, or "Pearl of the Sahara" is the name of the large farm complex owned by the Afifi-Pasha family. In the 1940's Hafez Afifi-Pasha undertook an ambitious programme to develop the farm's building facilities and, what is more interesting, its social services. New workers' housing, workshops, animal shelters, and grain storage and pigeon towers were constructed, as well as a hospital and clinic. With the completion of these buildings, Hassan Fathy was asked to design six more housing units and a new mosque with an attached *madrasa* (school).

The architect's mud brick houses were constructed first. Clustered around a common courtyard, each two-story unit has a common room, services, fireplace, two bedrooms, and roof terrace. In addition, a one story guesthouse was built at the entrance of the courtyard. Used by the workers' visitors, this large, simple pavilion has also accommodated events of family and community significance such as weddings and funerals.

The farm's current foreman was living and working on the estate at the time the housing and mosque were constructed. When asked how it was determined who among the workers and their families would be given the opportunity to move into Fathy's housing, the foreman explained that they were available to anyone, but that those who had homes preferred to stay, even though all agreed that the domed and vaulted rooms of the Fathy housing were very fine and that the houses would be cooler in the summer and warmer in the winter than their concrete block residences.

The mosque and *madrasa* were built with limestone and low-fired red brick. Like the housing, the mosque has been in continuous use since completion. The school, however, became inactive after approximately five years of use when a school was established in the nearby village.

Monesterly House

c. 1950, constructed.

Sited in Giza, A.R.E., and designed for Mrs. Atia Hanem Abu Asba Monesterly.

This palatial house on the west bank of the Nile River was designed for the wife of an Egyptian ambassador to Turkey. As the house was to be styled after Ottoman houses in the Bosphorous, before design began, the clients arranged a trip for the architect to visit a group of houses and rooms in Turkey that were much admired by them. The three-story house that resulted has a central hall around which a large salon, library and dining room are organized. These rooms are generously proportioned and richly appointed with ornamental plaster work. Directly above the central hall is a first-level courtyard which serves as a focus for more private living. A wing that stretches to the east helps enclose the entry courtyard of the estate and can be closed off from the rest of the house to serve as an attached apartment.

One of the most memorable features of the plan is the broken entrance sequence choreographed by the architect. Having entered through the front door, one is led down a narrow corridor that bends twice before delivering one into the brightly lit, splendid central hall with its view down and across the Nile River.

Stoppelaere House

c. 1952, constructed.

Sited in West Luxor, A.R.E., and designed for the Department of Antiquities on behalf of Dr. Alexander Stoppelaere.

This guesthouse is magnificently sited on the summit of a hill with the mountains behind it and the Nile Valley at its feet. The plan reflects the dual function of a part-time residence for the Department of Antiquities' chief restorer, Dr. Alexander Stoppelaere, and as quarters for visiting personnel. Dr. Stoppelaere's bedroom, bathroom and private courtyard were isolated at one end of the building, with common living areas, two guest bedrooms, and services dispersed around two additional courtyards.

Ceramics Factory

1955, constructed with modifications.

Sited in Garagos, A.R.E., and designed for the Jesuit Mission in Egypt on behalf of the Garagos community.

At the time the factory was built, Garagos relied solely on agriculture for its livelihood. The Jesuit Mission, then active in the community, thought to broaden the economic base with a small-scale craft industry. Having seen New Gourni, the mission director asked Fathy to design a ceramics factory.

Unfortunately, the plans the architect drew were not followed. Taking the technological concept, the Jesuits and their contractor rearranged the internal composition of individual buildings and the site plan without consulting the architect.

Still an active industry with a training programme, the factory is now owned and operated by the workers. Twelve craftsmen are currently employed.

Primary School at Fares

c. 1957, constructed.

Sited in Fares, A.R.E., and designed for the Egyptian Ministry of Education on behalf of the local community.

The Primary School at Fares consists of ten classrooms, an assembly hall, a library, a crafts room, administrative offices, two teachers' apartments, a mosque, and sanitary facilities, all organized around a courtyard enclosed on three sides and animated with a fountain. Approximately 700 pupils, both boys and girls, are enrolled in the school. Each classroom has a pendentive dome flanked perpendicularly with two vaults. An air shaft designed according to the principles of a *malqaf* keeps the classroom cool in the summer. A more elaborately detailed ventilation system was designed by the architect involving a louvered cupola in the dome and water basins in the air shaft. These, however, were not executed.

Since its opening, the architecture has been the focus of community pride. The teachers attached to the school are extremely appreciative of the facility, recommending it both for its thermal performance and aesthetics. In short, they find it an excellent environment for learning.

The Ministry of Education constructed another public primary school, without the architect's assistance, almost identical in

layout, in Id Fu. As in Fares, the school at Id Fu remains in operation. No other schools based on the Fares prototype are known to exist.

Housing Complex for Iraq

1959, designed with Doxiades and Associates.

Sited for Iraq, and designed for the Ministry of Development, Government of Iraq.

The single largest project undertaken by the architect during his association with Doxiades in Athens, Greece, the complex involved both a master plan for a new city and a detailed architectural design of one of its quarters. As with traditional Islamic communities, each quarter was to include a mosque, *hammam*, coffee house, school, shops, open market, and housing. Fathy's scheme also called for parks and an administrative centre with village hall. The dimensions of the quarter were defined by the distance the unaided voice of a muezzin's voice could carry while singing out from a minaret. Density was built into the plan with four- and seven-story housing blocks. To be housed were officials, nonfarming families, artisans, and farming families. Linked together internally with a network of walkways and green spaces, this quarter was connected to the larger urban form with vehicular streets and divided highways.

A University for Central Algeria

c. 1960, designed with Doxiades and Associates.

Sited for central Algeria, and designed for the Ministry of Education, Government of Algeria.

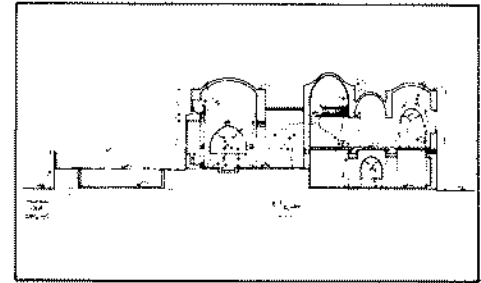
The project involved a master plan and building design studies.

Large Mosque

c. 1960, designed with Doxiades and Associates.

Sited for Pakistan, and designed for the Government of Pakistan.

The design included a landscaped forecourt and mosque with courtyard surrounded by covered spaces spanned in concrete in a folded plate configuration. The *mihrab* is marked with a geodesic dome.



Section. Large Mosque for Pakistan.

Training Centre

c. 1962, constructed.

Sited in Kharga, A.R.E., and designed for the Desert Development and Reclamation Bureau of the Egyptian Government.

The Training Centre was instituted as part of the government's development scheme for the Kharga Oasis. Built in conjunction with a series of new towns (Fathy's New Bariz Village among them), the Centre provides both a basic education and technical training in areas of agriculture, mechanics, nutrition, and hygiene.

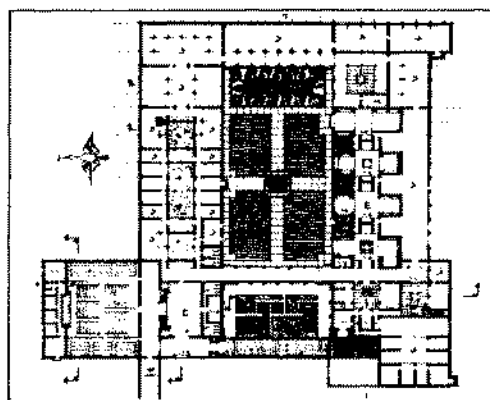
The building itself has suffered significant damage since construction. Because the building is sited on the lowest point in the area, breaks in the surrounding water mains have caused groundwater buildup. Since the building rests on clay deposits that swell appreciably when moistened, the foundations have heaved, causing structural damage to mud brick walls, vaults, and domes. Such structural faults can be prevented with thick concrete footings resting on a prepared bed of sand. Though the Centre's administrators are enthusiastic about the thermal quality of the building and its use of local materials, and they are well aware of how to detail such buildings to insure longevity, they are systematically demolishing the building and replacing it with reinforced concrete structures.

Luxor Cultural Centre

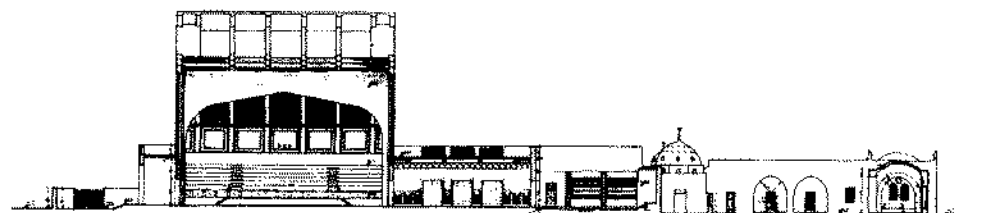
1964, designed.

Sited for Luxor, A.R.E., and designed for the Ministry of Culture and Information of the Egyptian Government.

The Luxor Cultural Centre was designed as a tightly-knit complex devoted to the theatrical and plastic arts. Stage craft and cinema were accommodated by both an enclosed and an outdoor theater. Artists' studios were planned for both adults and children. Lecture and exhibition halls were to be adjacent to the Sanctuary of Sidi al-Wahche with its mausoleum, mosque, and ablution area. Many of the design principles for the Centre's components came from historical sources, including an Eighteenth Dynasty house in Tal al-Amarna and the Nineteenth Dynasty house of Nub Amon.



Plan. Luxor Cultural Center.



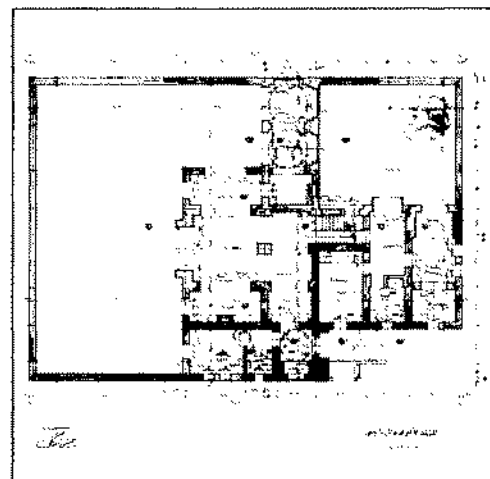
Section. Luxor Cultural Center.

High Institute of Social Anthropology and Folk Art

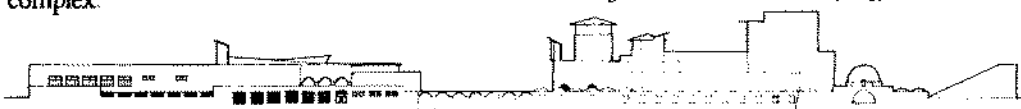
1965, designed.

Sited for Luxor, A.R.E., and designed for the Ministry of Culture and National Guidance of the Egyptian Government.

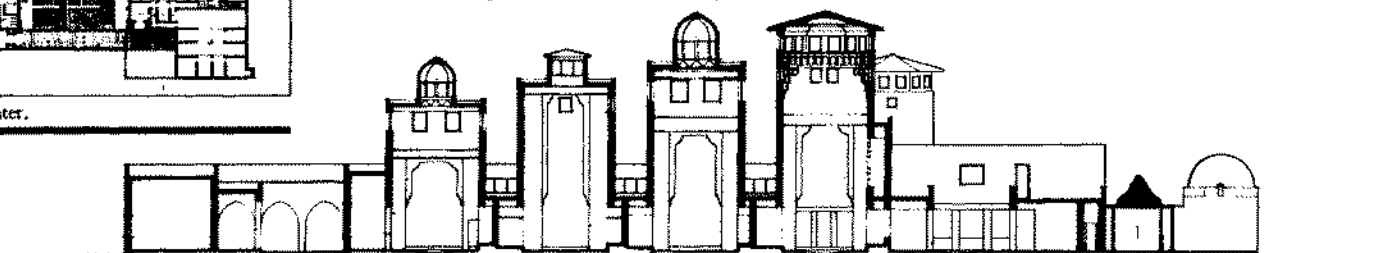
The High Institute of Social Anthropology and Folk Art was an ambitious project to create a center for the study and development of Egyptian culture with emphasis on music, theater, and architecture. The programme included a museum and exhibition hall, classrooms, and performance areas. At least two of the proposed Institute's buildings were designed in detail: the museum and the theater complex.



Plan. High Institute for Social Anthropology and Folk Art.



West elevation. High Institute for Social Anthropology and Folk Art.



Section. Museum, High Institute for Social Anthropology and Folk Art.

Prototype Mountain House

1966, designed.

Sited for al-Dareeya, Saudi Arabia, and designed for the Ministry of Social Affairs and Labour of the Kingdom of Saudi Arabia. The design of prototypical houses was part of a pilot project for the development of existing settlements in the mountains. Carefully attuned to the natural habitat, climate, and the local traditional house form, the houses created by the architect were single-story dwellings with sleeping roofs. All rooms were organized around a central patio. Fireplaces were to beat the houses during the cool winter, and wind catchers working in conjunction with the courtyard would temper spaces during hot summer months.

New Bariz Village

1967, partially constructed.

Sited in the Kharga Oasis, A.R.E., and designed for the Egyptian Administration of Desert Development.

New Bariz is sited six kilometers north of old Bariz. It is here that in 1963 the Desert Development Organization discovered a water well with the potential to irrigate 1000 acres of farmland. New Bariz was planned as the central village of a region forty kilometers in diameter to embrace six new hamlets in addition to old Bariz.

In designing the village the architect carefully studied traditional towns in the New Valley, taking special note of their response to the

harsh desert climate. His clustered housing follows the established pattern of narrow, meandering streets that are periodically covered. Houses themselves are introverted, opening to inner courtyards. The spectacular form of the market is also largely determined by environmental engineering, though it uses techniques unfamiliar to the Kharga Oasis. Its twin system of wind shafts naturally cools, and circulates air, providing, among other benefits, safe storage for food and grain at the basement level.

Planned for a population of 250 families, the brick yard, market, a workshop, and a bus stop were completed and two villas and the office complex partially built during two years

of construction. One more year of building would have completed New Bariz; however, the 1967 war with Israel brought an abrupt end to the work.

Twenty-seven families did inhabit the partially constructed village for one year. Confined to the workshop, a number of stories have sprung up around them. Some say they were displaced by the Israelis in the Sinai and temporarily relocated in Bariz by the government. A more credible story is that the heads of the families were hashish smugglers in Ismailiya and that they were detained in the oasis as retribution for their offense. A record of their story has been made by the children who scratched drawings on the village walls of ships remembered from the Suez. In speaking with a school teacher in old Bariz about Fathy's project as an innovative technological approach to building, the teacher offered well-informed praise. Traditional houses in Bariz have palm beam roofs. An expensive material, the wood must be replaced every ten to fifteen years owing to termite infestation. The teacher acknowledged the economic advantages of mud brick domes and vaults. He also recognized the thermal benefits of wind catchers, and by studying the New Bariz market, understood their dynamics. Asked why these techniques were not used by him and others in the village he stated, "Tradition is a stronger force than innovation - if you are making a new start, as with New Bariz, then it's an excellent solution."

House at Sidi Krier

1971, constructed.

Sited in Sidi Krier, A.R.E., and designed for the architect himself.

Sidi Krier is on the Mediterranean coast, approximately fifty kilometers west of Alexandria. Built as a weekend house and summer retreat, the building is constructed with local limestone, fired brick and rendered with gypsum-based plaster. Special attention was given to the roofscape, which serves as a major living area of the house. The large archways in the courtyard facing the sea were originally open. They have since been filled with claustra work.



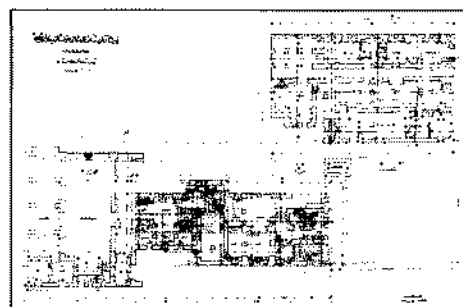
East elevation. Center for Development at Sidi Krier.

Centre for the Development of the Northern Shore at Sidi Krier

1971, designed.

Sited for Sidi Krier, A.R.E., and designed for the Planning Commission for the Development of Sidi Krier.

Having been greatly impressed by the house the architect built for himself in Sidi Krier, the local planning commission asked Fathy to design a scheme that would accommodate a large resort community. To be built in stages, the first and only stage designed included a planning office for the project's subsequent work, and three housing units.



Plan. Center for Development at Sidi Krier.

Mehrez Apartment

1971, constructed.

Sited in Cairo, A.R.E., and designed for Shahira Mehrez.

The Mehrez Apartment occupies the top, sixth, floor of an apartment building in the Dokki section of Cairo. The building was developed by Miss Mehrez's mother in conjunction with an architect. Dissatisfied with the design of the flat that was to be hers, the daughter asked Fathy to redesign it. Since the first five floors were fully conceived, Fathy had to work within a given layout of structural columns and utilities.

The apartment is arranged with a vestibule, large living room connecting to a patio which in turn connects to a private living space with sitting area, sleeping balcony, and library. A bathroom with sunken tub is off the sleeping area. The kitchen and a powder room connect with the vestibule.

Architectural elements such as fireplaces, a fountain, cupola in the private living areas, and *mashrabiyya* screens work with subtle changes in floor and ceiling heights to

particularize each space and create distinct areas within large rooms. An overall sense of rich, spacious architecture pervades what is in fact a relatively small apartment unit.

Polk House

1972, designed.

Sited for Aspen, Colorado, U.S.A., and designed for Dr. William Polk.

The project was designed as a small mountain resort with seven bedroom and bath units, a common living area and kitchen, and an indoor swimming pool.

Riad House

1973, constructed.

Sited on the Sakkara Road outside Cairo, A.R.E., and designed for Dr. Fouad Abdel Mouseim Riad.

Dr. Riad came to know the architect in 1966 through their mutual interest in music.

Design for the house began in 1967, though construction was not completed until 1973.

The initial program called for a small retreat for a family with two children. The design response was a house with *ka'a*, domed entrance hall, kitchen, and bathroom. The string of four small rooms separated from the main building and referred to as the "doll house" was always part of the plan conceived with the children in mind. However, the wing with three bedrooms was added after the project began.

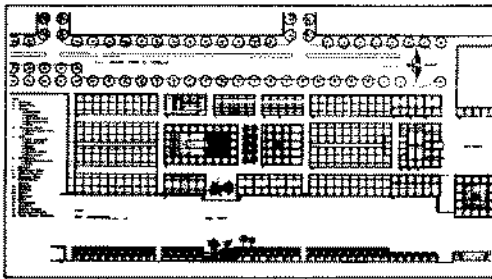
The house is constructed of limestone. Large, undressed blocks are used for the walls, dressed blocks are used to frame openings, and thin sheets, not unlike Roman bricks in shape, are used for vaulting and domes. Many of the house's fixtures and wood finishes were salvaged from old buildings, though some woodwork was custom-made at the workshop of the Department of Antiquities. Despite his intention for a weekend house, Dr. Riad has maintained full time residency since the project's completion. He explains, "Living in the house has had the effect of rebirth. With it, I've developed a strong love for beauty and nature."

Reconstruction of Sohar

1974, *designed*.

Sited for Sohar, Sultanate of Oman, and designed for the national government. Much of the central business district in the port town of Sohar was destroyed by fire in 1967. The Sultan of Oman engaged the architect to redevelop the district. The plan that was prepared designated a large covered market with approximately sixty commercial units and a specially designed bakery, department store, and cafe. The highly regularized building system incorporated stylistic features of the local architecture, including barasti screening, but employed an innovative roof structure of open-ended trusses covered with chicken wire and concrete and varied in height to encourage cross ventilation.

The scheme also called for a new mosque, village government centre, and housing. Developed in tight clusters, each dwelling was given a vegetable garden plot within its boundary walls.



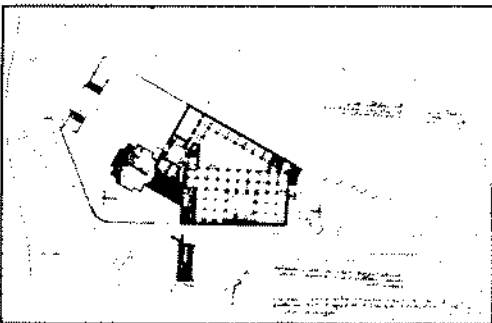
Plan and section. New Market for Sohar.

Mosque for Abassia

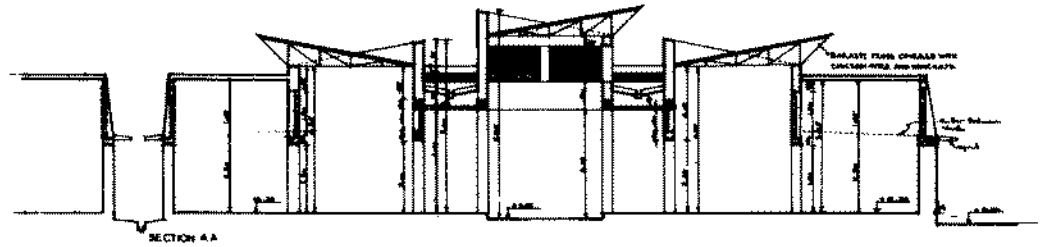
1974, *designed*.

Sited for the Abassia area of Cairo, A.R.E., and designed for the Islamic Welfare Committee.

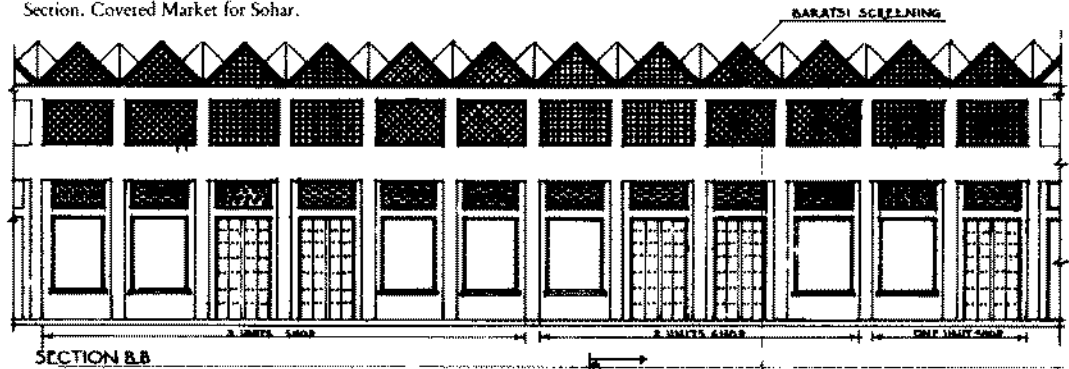
The mosque complex the architect designed for the irregular site was to be attached to an existing monument. A complex is now being built on the site, but not according to Fathy's plans.



Plan. Mosque for Abassia.



Section. Covered Market for Sohar.



Partial street elevation. Store fronts for Sohar.

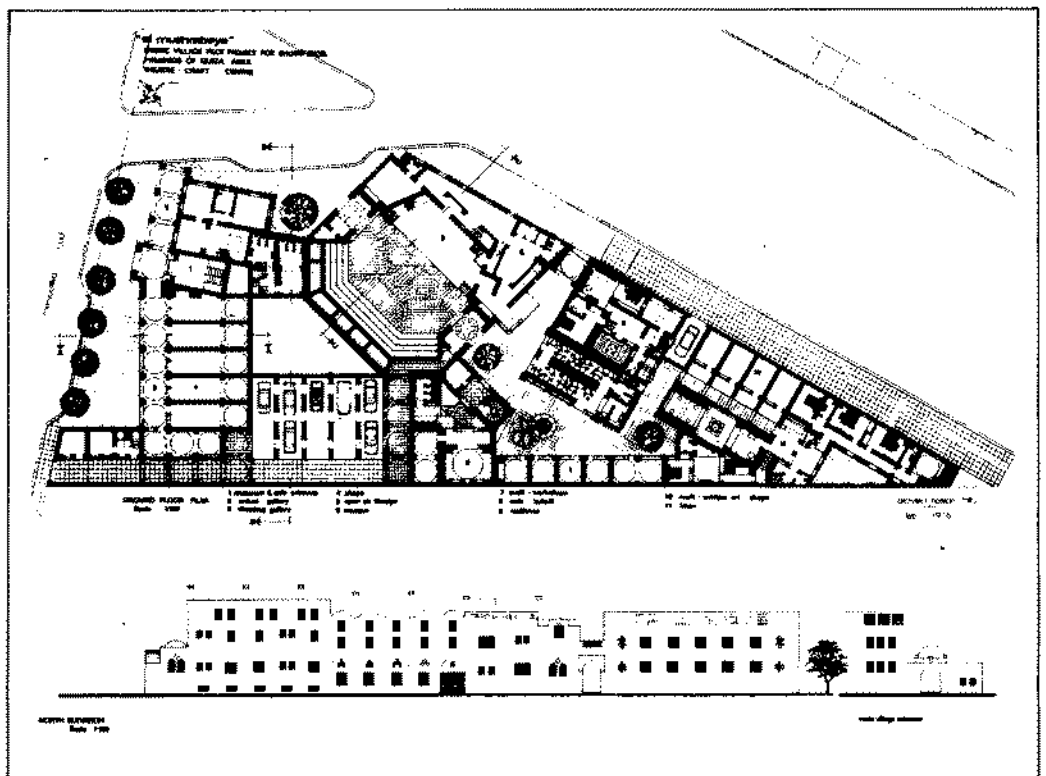
"Al Mushrabiyya"

1976, *designed*.

Sited for Giza, A.R.E., and designed for the Shukry brothers.

"Al Mushrabiyya" was the name given to a

proposed art center for a site near the Pyramids of Giza. The section of the project designed by the architect shows an outdoor theater, artists' studios, residential units, restaurant, cafe, *khan* and mosque.



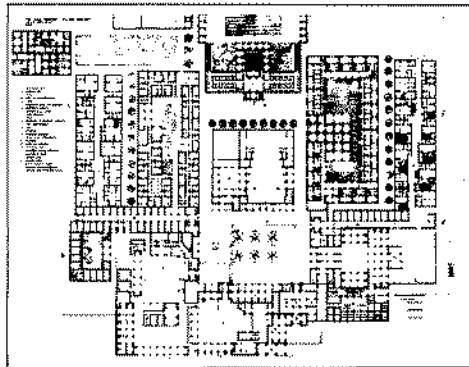
Plan and north elevation. Al-Mashrabiyya Hotel Center.

Nile Festival Island Resort

1977, designed; 1982, redesigned.

Sited for Luxor, A.R.E., and, in 1982, designed for a business syndicate formed to undertake the project.

The project is a resort village on the Tarh al-Bahr Island in the Nile River off Luxor. To be approached by water, the 1977 complex includes reception area, restaurants, three *khangs*, four theatres (two outdoor, an indoor, and a theatre for chamber music), a swimming pool, Turkish bath, children's park, and overnight accommodations grouped in neighborhood clusters for tourists. At the time of this publication, it appeared unlikely that the village would be constructed.



Plan. The Nile Festival Village.

Narpin Rest House

1978, designed.

Sited for the Kharga Oasis, A.R.E., and designed for Baum Narpin.

Hotel Rebat

1978, designed.

Sited for Kharga, A.R.E.

This luxury hotel for the district capital of the Kharga Oasis was to have restaurants, shops, a shaded courtyard, a swimming pool, and deluxe living units.

Samy House

1979, constructed.

Sited in Dashure, A.R.E., and designed for Dr. Akeel Samy.

The house of Dr. and Mrs. Samy is used as a weekend residence. Construction took two years, owing in part to the difficulty of transporting skilled labour from Cairo to the site. The house is built with undressed limestone block and fired brick. Walls, roofs, and ceilings are rendered in white plaster. The



East elevation. The Nile Festival Village.



Section. The Nile Festival Village.

custom woodwork was designed and crafted by a carpenter, Hassan al-Naggar, appointed by the architect. Dr. Samy shared the role of site supervisor with the architect, taking great interest and delight in watching the structure develop in successive phases.

Sadrudin Aga Khan House

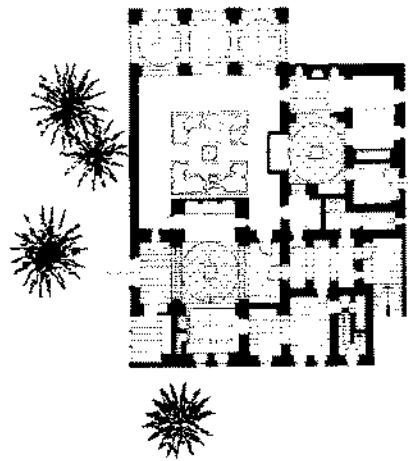
c. 1980, designed.

Sited for an island in the Nile off Aswan, A.R.E., and designed for Prince Sadrudin Aga Khan.

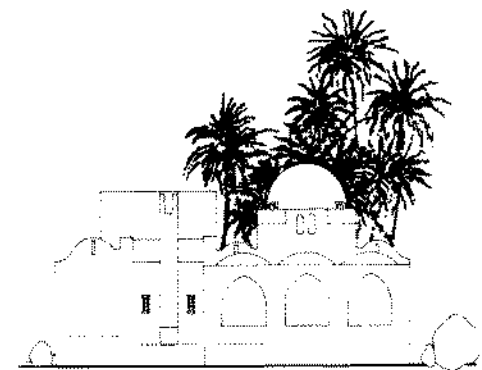
To be a retreat house for the Prince and his wife near the tomb of his father, the Aga Khan III, on the west bank.



South elevation. Sadrudin Aga Khan House.



Plan. Sadrudin Aga Khan House.



North elevation. Sadrudin Aga Khan House.

al-Naggar House

c. 1980, constructed.

Sited on Mallorca, Spain, and designed for Mustafa al-Naggar.

Though designed by the architect, the extent to which the house plan was faithfully carried out is unclear.

Abdulrahman Nassief House*1980, constructed.*

Sited in Jeddah, Saudi Arabia and designed for Sheikh Abdulrahman Nassief. (Another house was also partially designed for Abdallah Nassief, the client's brother, and built, but the final realisation – elevations, details, etc. – was not by Fathy and hence is not accredited herein.)

The client, who lived in a traditional Jeddah house, visited Fathy in Cairo in 1974 where the architect produced the first sketches. Fathy then visited the site, finalised plans and work began in the same year. The structure took two years to complete. The stone came from an old torn-down Jeddah house and the client visited several countries before selecting the wood from Indonesia and Sweden.

The building was constructed with the aid of two of Fathy's master-masons (one of whom was Alahuddin Mustapha) from Egypt who spent six months on site.

Some alterations were made by the client (helped by Fathy's ex-student El Wakil) and approved by the architect. The building took six years to complete, at a cost of approximately six million rials. It remains one of Fathy's few realised works outside Egypt.

Mit Rehan*1981, constructed.*

Sited in Shabrament on the Sakkar Road, A.R.E., and designed for Nazli and Samilha Kazroni.

Mit Rehan, "The Way of the Basil", was designed for two sisters and their closely-knit extended family. The most stately domed and vaulted home in Egypt by the architect, it is at present used as a retreat and part-time residence.

The house is built with limestone quarried in Fayum. A young man in the family, Mahmoud Fahmy, oversaw the construction. His building team consisted of four stone cutters, four masons, four assistant masons, and six carriers. The project required 272 building days. Since the workers were from the Beni Suef area, some 100 kilometers from the site, during the construction they lived in Shabrament, returning every fifteen days to their village for a visit.

Girls from the village were used as carriers. The job was highly desirable to them since saved wages enhanced their prospects for

marriage. Mr. Fahmy recalls that each girl worked tirelessly on the site to prove her strength to the unmarried men, and in fact, three of the girls were taken as brides by three of the assistant masons.

Presidential Rest House*1981, constructed.*

Sited in Garf Husein, A.R.E., and designed for Anwar Sadat as a presidential rest house of the government.

Sited on Lake Nasser, this remote official residence has never been occupied. At the time the late President Sadat was assassinated, the house was complete except for the installation of utilities and infill elements. The work carried out thereafter was hurriedly done, poorly executed, and incomplete.

A truly grand building, the Rest House is organized around courtyards and has features such as a large main hall for reception and dining and private apartments, each with *ka'a*, dressing room, and bathroom. Though most of the building is constructed with stone and brick, its large dimensions have appropriately called for the introduction of reinforced concrete.

Dar Al Islam*1981, partial construction.*

Sited in Albiquiu, New Mexico, for the Dar Al Islam Community.

The community master plan was originally conceived by the architect but is being changed. The major building designed by Fathy and completed is the mosque. A *riwag* (student housing) and a *madrasa* (school) are also presently under construction.

Seddik House*1983, constructed with modifications.*

Sited in Giza, A.R.E., and designed for Mohammed Rateb Seddik.

Designed as a residence and studio for a painter and sculptor, the house form was altered during construction without the architect's consultation.

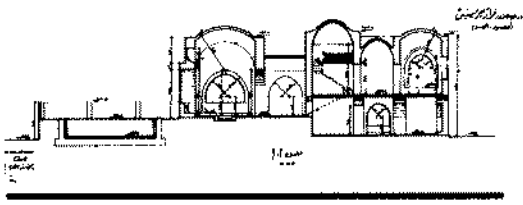
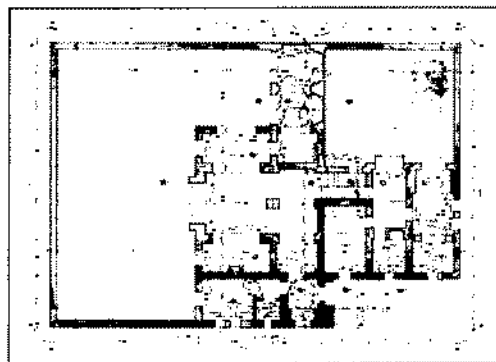
Sheikh Nasr House*1984, constructed.*

Sited in Kuwait, and designed for Sheikh Nasr al-Sabah and his wife.

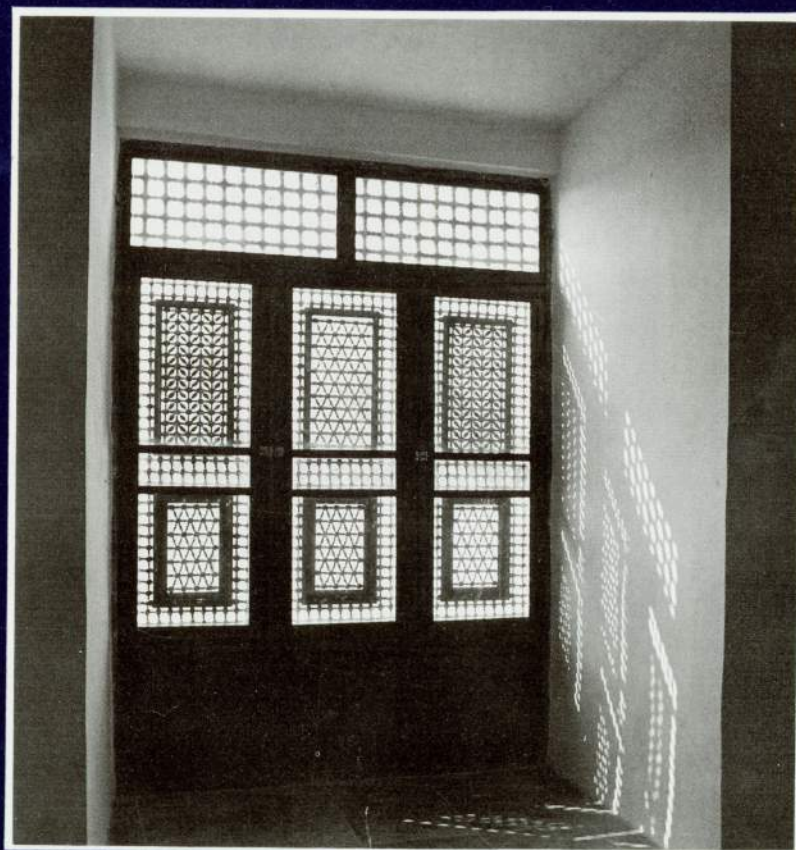
The original design was by the architect but the changes, interior design and site supervision were carried out by Omar el Farouk, an ex-student of Fathy.

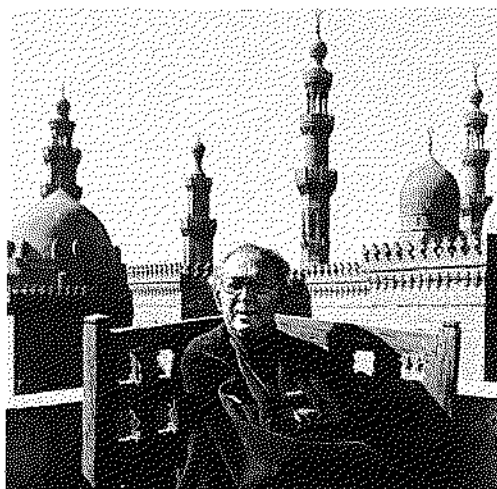
Greiss House*1984, constructed.*

Sited in Abu Sier on the Sakkara Road, A.R.E., and designed for Dr. Mourad Greiss. The Greiss House is the most recently completed villa by the architect in the agricultural countryside surrounding Cairo. It serves as a second home for the owner and his wife. The house was built by a team of masons from Nubia, but difficulties related to labour management and quality control in the initial phases of construction caused the owner to assume a supervisory role. He put together his own team of skilled workers from Cairo who were supported by labourers from the immediate area.



BIOGRAPHY PUBLICATIONS BIBLIOGRAPHY





xxvi. Fathy in Cairo, 1980.



xxvii. Fathy with J. M. Richards, at Sakkara in 1967.

Biography

23 March 1900

Born in Alexandria, Egypt.

1926

Graduated from High School of Engineering, Architectural Section, University of King Fuad I (now University of Cairo), Cairo.

1926-1930

Worked at the Department of Municipal Affairs, Cairo.

1930-1946

Taught at the Faculty of Fine Arts, Cairo.

1937

Designed and exhibited first mud brick projects – country houses for Lower Egypt.

1941

Constructed first mud brick structures incorporating the inclined vault – experimental housing in Bahtim, Egypt, commissioned by the Royal Society of Agriculture.

1946-1953

Delegated to the Antiquities Department to design and supervise the project of New Gournia Village at Luxor, to displace the inhabitants of the Old Gournia from the Antiquities Zone.

1949-1952

Appointed Director of the School Building Department, Ministry of Education.

1950

Delegated Consultant to the United Nations Refugee World Assistance.

1953-1957

Returned to teaching at the Faculty of Fine Arts, Cairo. Head of the Architectural Section in 1954.

1957-1962

Joined Doxiades Associates in Athens as consultant. Lecturer on Climate and Architecture at the Athens Technical Institute. Member of the Research Project for the City of the Future.

1963-1965

Director of Pilot Projects for Housing, Ministry of Scientific Research, Cairo. Designed High Institute of Social Anthropology and Folk Art for the Ministry of Culture, Cairo. Worked as Consultant to the Minister of Tourism, Cairo. Delegated by

the United Nations Organization for Rural Development Project in Saudi Arabia.

1966

Lectured on philosophy and aesthetics in Town Planning and Architecture Department at al-Azhar University.

1975-1977

Lectured on rural housing at the Faculty of Agriculture, Cairo University.

1976-1980

Member, Steering Committee, Aga Khan Award for Architecture.

1977-present

Founder and Director, the International Institute for Appropriate Technology.

AFFILIATIONS

Member of the High Council of Arts and Letters, Egypt.

Honorary Fellow, American Research Centre, Cairo.

Honorary Fellow, American Institute of Architecture, 1976.

AWARDS

1959

Encouragement Prize for Fine Arts and Gold Medal.

1967

National Prize for Fine Arts and Republic Decoration.

1980

Chairman's Award, the Aga Khan Award for Architecture.

1984

Union Internationale des Architectes, Gold Medal.

Publications by Hassan Fathy

The Arab House in the Urban Setting: Past, Present and Future. Fourth Carreras Arab Lecture of the University of Essex, 3 November 1970. London: Longman, 1972.

Architecture for the Poor: An Experiment in Rural Egypt. Chicago: University of Chicago, 1973. Originally published in 1969 under the title *Gourna: A Tale of Two Villages*, by the Ministry of Culture, Arab Republic of Egypt.

"Beyond the Human Scale - Hassan Fathy." Interview by Yorick Blumenfeld. *Architectural Association Quarterly* 6, Nos. 3 & 4 (1974), pp. 53-57.

"The City of the Future." Internal reports to the Athens Centre of Ekistics of Hassan Fathy, one of a team of experts participating in early discussions on the City of the Future project, 1960-1962. (Mimeographed.) Project is reported in C. A. Doxiades and J. G. Papaioannou, *Ecumenopolis, The Inevitable City of the Future*. New York: W. W. Norton & Co., 1974.

"Constancy, Transposition and Change in the Arab City." In *Madina to Metropolis*, pp. 319-334. Edited by L. Carl Brown. Princeton, N. J.: Darwin Press, 1973.

"An Ekistic Approach to the Problem of Roofing in Peasant House-Building." *Ekistics* 17 (June, 1964), pp. 391-398.

"Model Houses for El Dareeya, Saudi Arabia." *Ekistics* 21 (March, 1966), pp. 214-219.

"Model of Rural Housing for Saudi Arabia." *Ekistics* 22 (September, 1966), pp. 203-204.

"Le Pays d'Utopie." *La Revue du Caire* 24 (November, 1949), pp. 8-35.

"Planning and Building in the Arab Tradition: The Village Experiment at Gourna." *The New Metropolis in the Arab World*. Edited by Morrie Berger. New Delhi: Allied Publishers, 1964; reprint ed., New York: Octagon Books, 1974.

"The Qa'a of the Cairene Arab House, Its Development and Some Usages for Its Design Concepts." In *Colloque International sur l'Histoire du Caire, 1969, Proceedings*, pp. 135-152. Cairo: Ministry of Culture, Arab Republic of Egypt, 1972.

"Rural Self-Help Housing." *International Labour Review* 85 (January, 1962), 1-17. Abstracted in *Ekistics* 13 (June, 1962) pp. 398-401.

Urban Architecture in the Middle East. Beirut: Beirut Arab University, 1971. (In Arabic.)

"La Voute dans l'Architecture Egyptienne." *La Revue du Caire* 27 (May, 1951), pp. 14-20.

Mosque Architecture
undated manuscript (The Aga Khan Award for Architecture, Archives, Geneva).

Natural Energy and Vernacular Architecture
UN University, Tokyo and the University of Chicago Press, 1985.



xxviii. Fathy and students on site, 1960.



xxix. Fathy with friends in New Gourna, 1960.



xxx. Fathy with one of his many cats; at home in Cairo, 1984.

Publications on Hassan Fathy

Clark, Felicia, "Appropriate Invention" review of *Architecture for the Poor* by Hassan Fathy, *Architectural Record* 168 (January 1980), p. 187.

Cliff, Ursula, "Designers of Human Settlements. Hassan Fathy; The Logical Building Material Is What the Peasants Dig Out of the Ground: Mud Brick" *Design Environment* 7 (Spring 1976), pp. 22-25.

Cousin, Jean-Pierre, "Hassan Fathy" *L'Architecture d'Aujourd'hui* 195 (February 1978), pp. 42-78.

Dethier, Jean, *Down To Earth: Adobe Architecture* New York, Facts on File, 1983.

Dillon, David, "A Mosque for Abiquiu" *Progressive Architecture* (June 1983) pp. 90-92.

Durkee, Abdullah Nurideen, "Qariyat Muslimah in New Mexico" *al-Majal*, (December 1981).

El Farouk, Omar, John Norton, Wendy Etchells, Jocelyn Levaux, Allan Cain and Farroukh Afshar, *Climate Study: Traditional Houses*. London, Third World Studies Unit, Architectural Association of Architecture, 1973.

Friedlander, Shems, "The Dream of Hassan Fathy" *Geo* (Volume 3, December 1981) pp. 91-98.

Friedlander, Shems, "Hassan Fathy: A voyage to New Mexico" *Arts & the Islamic World* (Volume 1 No. 1 Winter 1982/83) pp. 31-35.

Friedlander, Shems, "In Touch with the Earth" *Portfolio*, (May/June 1982) pp. 106-109.

"Hassan Fathy. Chairman's Award" Renata Holod with Darl Rastorfer eds. *Architecture and Community. Building in the Islamic World Today*. New York, Aperture, 1983, pp. 235-245.

Homans, Rick, "Hassan Fathy" *Adobe Today*, No. 29.

Lobell, Mimi, review of *Architecture for the Poor* by Hassan Fathy, *East/West Journal* (June 1976) pp. 52-53.

Marquis, Robert B., "Egypt's Prophet of Appropriate Technology" *American Institute of Architects Journal* 69 (December 1980) pp. 38-39.

"Nouveau Village de Gournah, Hassan Fathy, Architecte" *L'Architecture d'Aujourd'hui* 140 (October-November 1968) pp. 12-17.

"Le Nouveau Village de Gournah, Egypte, Architecte: Hassan Fathy" *L'Architecture Francaise* 8, Nos. 73-74 (1947) pp. 78-82.

Petrucchioli, Attilio, "Tracking Down the Poet of Raw Bricks" *Spazio e Societa* 5 (1982) pp. 42-61.

Prussin, Labelle, review of *Architecture for the Poor* by Hassan Fathy, *Journal of the Society of Architectural Historians* 37 (March 1978) p.55.

Richards, J. M. "Gournah, a Lesson in Basic Architecture" *Architectural Review* 147 (February 1970) pp. 109-112.

Schleifer, S. Abdullah, "Hassan Fathy's Abiquiu: An experimental Islamic educational center in rural New Mexico" *Ekkistics* 304, (Jan/Feb 1984) pp. 56-60.

Schilling, Jacob, "Gournah, ein Architektonisches Experiment in Aegypten" *Deutsche Bauzeitung* 99 (January 1965) pp. 46-50.

Seamon, David, "Heidegger's Notion of Dwelling and One Concrete Interpretation as Indicated by Hassan Fathy's *Architecture for the Poor*, *Geoscience & Man*, (Vol. 24, 30 April 1984) pp. 43-53.

"Self-Help/Mud Building, Egypt" *Architectural Design* 46 (October 1976) p. 596.

Swan, Simone, "Hassan Fathy Demonstrates Ancient Construction Methods in New Mexico" *Architectural Record* 168 (December 1980) p. 39.

U.S. Department of Housing and Urban Development, Office of International Affairs, *Mud Brick Roofs*, Ideas and Methods Exchange, No. 42, Washington D.C. 1957.

Vaughan, Joe, "Hassan Fathy" *Adobe Today* No. 30, pp 19-21.

Ward, Colin, "For the Fellah with Nothing" review of *Architecture for the Poor* by Hassan Fathy, *Royal Institute of British Architects Journal* 81 (February 1974) pp. 35-36.

Hassan Fathy, Architect An Exhibition of Selected Projects Catalogue, Cambridge, School of Architecture and Planning, Massachusetts Institute of Technology, Spring 1981.





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