

The Hassan Fathy Collection Projects 1928-1987

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I. Early Work 1928-1937

Close examination of the progression of the earliest documented projects of Hassan Fathy, completed between 1928 and 1940, shows a philosophy in a dramatic state of transition, with the evolution of his ideas during that brief, twelve year period constituting a compressed personal parallel to the general change in architectural thought itself during the last half century.

The Talka School of 1928, which is the first recorded project done by Fathy after his graduation from architectural school, is the unmistakable product of a classical, Beaux Arts education. Only fragmentary details remain to show the young architect's concern with the niceties of a well proportioned monumental stair flanked by Doric columns and capped with fretwork, dentils and acrotyrion. The Villa Hosni Omar, which follows two years later, as well as the Sada El-Bakreya apartment house and "La Giardiniera" Kiosk, also mirror the architectural changes then taking place in Europe at the turn of the century. Each of them shows a similar tendency to eradicate all historical references in both form and detail through the use of flat roofs, plain wall surfaces and industrial materials. These projects, as well as the Casino Bosphore and an office building designed for the El-Sabah Journal, all show diverse threads of influence such as Olbrich and the Vienna Secession, Adolph Loos, the Bauhaus,

Art Deco and many other trends that were then in fashion in Europe at the time. While showing the young architect's remarkable abilities as a quick study, these projects are also significant because of the way in which they indicate Fathy's awareness of the new architectural manifestos then being formed on the continent by the Modern Movement, and the speed with which they were transmitted to Egypt. While similar work continues throughout 1937 and 1938, as can be seen in the flat roofs and Corbusian curves of the Villa Hayat, there is a glimmer of something new emerging in projects such as the Garvice house and the Villa Heshmat. In each case those same flat roofs and plain wall surfaces begin to be enlivened with details such as projecting mushrabbia windows, intricately carved wooden balcony railings, arched doors and windows, projecting fin

walls, and even claustro-work masonry. This tendency toward what might be characterized as the exterior ornamentation of basically International Style houses reaches its peak with the design of houses for Mrs. El Harini and Mohammed Fathy (1941), which both have plans that are virtually indistinguishable from the most avant-garde work being done in either Europe or America at the same time. His plans for several other public buildings, such as those for various hospitals that were done at this same time, also demonstrate the same transitional ideas as his residential work.

II. Mansouria and its Aftermath 1937-1957

With the Ismail Abd El-Razek Villa, however, which was also designed in 1941, there is a profound reversal in the direction of Fathy's work. This change, which can be attributed to more than the use of domed forms, results in an obvious shift in theoretical principles as defined in his basic approach to space planning. While still not fully developed, there are vestiges of a dorqa'a with flanking iwans here, and initial attempts at a direct connection between this formal area with an exterior courtyard space formed by the intersection of the two wings of the house. In addition to this critical space relationship, which becomes so basic to all of Fathy's work in later years, circulation areas are also effectively used as a buffer between the public areas in the interior and the six family bedrooms which line the perimeter of the plan.

While never carried out for the Abd El-Razek family, the same plan was reworked and presented as a second alternative to Hamdi-Seif Al Nasr house four years later, as well as appearing in a slightly altered and more sophisticated version in the Kallini house, where all of these ideas finally coalesce. With the Kallini project and a house for Taher Omari Bey for the Fayum that is done at the same time, the stage is finally set for the framework that will be followed, with ingenious variations, for the next fifty years.

The architect considered this group of designs for the Abd El-Razek, Kallini, Said Al-Bakry and Taher Omari Bey houses and several others to be such a revolutionary new direction in his work, that he prepared a series of extremely beautiful gouaches and coloured pencil drawings which were exhibited in a gallery in Mansouria in 1937. This exhibition may be considered a benchmark in his work. The startling fact of his focus on traditional forms and mud brick construction aside, the artistic conventions used in the renderings, such as highly accentuated primal colours and the re-creation of the one dimensional techniques once used in ancient Egyptian wall paintings, show the architect's deeply felt wish to directly link the work to nationalistic sources.¹

The personal and professional courage required to mount an exhibition of this sort at that time, which would certainly even be considered daring in the diverse architectural climate today, can only really be appreciated by reflecting on the increasing strength of the modern movement at this time. His courage was certainly rewarded, because four years later Fathy was deeply involved in several projects such as the Royal Society of Agriculture Farm in Bahtim and a prototype house that would form the building block for new units to be used in replacing homes destroyed in a flash flood in Ezbet Al-Basry.² These two projects are extremely important because they forced Fathy to deal with the tectonic realities of actually building the idealistic new designs presented at Mansouria in a way that would also be consistent with his desire to make his approach inexpensive enough to be accessible to everyone.

That desire, as well as the coincidental shortage of industrial building materials caused by the war at that time, led him to Aswan and the personal discovery of Nubian methods of building. With the triple principles of the spatial and environmental systems derived from the buildings in Old Cairo, the logic and economy of using mud brick and knowledge of the Nubian techniques of building in that material firmly in place, Fathy was ready to embark on a new phase of his career.

The Hamid Said house in Marg represents an important project in the collection because it is the first documented application of mud brick construction, and is still standing. The first phase, which was built in 1942, was simply a studio and sleeping space for the artist and his wife, incorporating a large vaulted loggia as an open exterior sitting area from which to appreciate the seemingly endless green palm grove surrounding the property. The construction of the house coincided with a climate of concern among Egypt's intellectual community at that time about the detrimental effects of industrialization on the traditional cultures of the world and the need for a search for Egyptian origins in the face of the threat. Hamid Said intended this house, in the midst of a vast tract of the same date palms and papyrus that signified Egypt's lush agricultural legacy in the past, to be both a restatement of these original agrarian roots of Egyptian culture, and a rural recreation of a studio, called "Tangezia", that he had once had in the Muqattem Hills. The

final siting of the first section of this house was determined by camping out in a tent on the property with the architect for some time before construction actually began. The second phase, which followed four years later, was equally sensitive in accommodating the environment, having been organized in such a way as to avoid several large trees on the site. A characteristically variegated and top-lit gallery of a type that was continuously refined by Fathy in subsequent designs serves as a transitional element between the first and second phases of the house, yielding framed views into a central courtyard which is the client's reward for allowing the trees to remain. Since completion, this courtyard has been the venue for regular meetings of a group called "The Friends of Art and Life" which is headed by Hamid Said and is made up of artists, architects, sculptors, weavers, potters, writers, film-makers, photographers, philosophers and others who discuss a wide range of subjects. The main focus of these discussions, as expressed by Hamid Said, is to promote the value of the work produced by human hands as it relates to the unity, integrity and inspiration of the group rather than the individual. The strong philosophical connection between this rejection of dehumanizing mechanization in favour of a more naturally based group effort has forged a strong friendship between Hamid Said and Hassan Fathy since it is directly related to the architect's ideas of the value of people joining together to build with their own hands. Fathy and Said, along with the architect Ramses Wissa Wassef, who believed in this same approach, have been a strong triumvirate in favour of these ideas within Egypt since the end of World War 11. The house, which is a tangible expression of these ideas and undeniable proof of the owners wish to achieve "the highest ends with the simplest means," today unfortunately stands in the midst of a concrete wasteland as the urban sprawl of Cairo has rapidly expanded to encircle it. For the time being, in this particular situation at least, it would seem that the battle fought so valiantly by these three men has been lost. The Chilean Nitrate headquarters in Safaga which is contemporary with the first attempts at using mud brick by following Nubian structural techniques at Bahtim, Ezbet El-Basry and Marg, still betrays a somewhat tentative approach to both the system itself and the material used in it, even though the plan is deft and sure.

Repetitive living units on the ground floor, which is raised nearly 85 cm. above grade, are linked by thick adjoining party walls. Each have front and rear entrances with steps, a main vaulted combination living-dining area with a fireplace, and a service kitchen, bath and sleeping alcove. A separate stair from the outside leads up to the first floor and into a long hall which separates service functions such as food and linen storage, kitchens and bathrooms, from a series of bedrooms on the northern side of the building. All of these adjoin a common arcaded terrace, while a major communal space is intentionally separated out as an individual wing of the building and is also used to visually anchor the repetitive line of living units on the other side.

The Chilean Nitrate Headquarters was followed soon afterwards by the Hamdi Seif Al-Nasr resthouse, which is sited on a long thin peninsula of land projecting into Lake Fayum, and was intended to be used during the landlord's periodic visits to his estate here. The design as documented represents an ambitious first interpretation of the client's requirements, resulting in a solution that is quite large in both plan and vertical section. Raised up on a man-made podium to protect it from flooding, the house plan revolves around the interplay between an arcaded square exterior courtyard and the high formal vertical dorqa'a to which it is connected by a deep window and malkaf above. The various other spaces of the house are all related in one way or another to the linear axis set up between these two elements and fall on either one side or the other of the line that they create, depending upon the level of privacy required.

In the final design as built, which is not included in the documents but is shown in the photographic material, the scale of the preliminary scheme is greatly reduced, but the basic concept remains intact.³ As in the first design, a terrace is used to raise the house above water level, with a lower set of steps giving access onto it. The relationship between the courtyard and a much reduced qa'a is also retained, but in its final form the courtyard emerges to be totally open to the exterior on the landward edge facing the entrance drive. This highly unusual exposure of a courtyard on its public side may possibly be attributed to the architect's wish to take full advantage of the view of the beautiful trees near the entrance and to contrast this view with the totally different vista

toward the water on the opposite hand. The division between public and private spaces, as originally conceived in the preliminary scheme, is also retained, but unfortunately the malkaf, which was originally the generator of many of the spatial connections throughout the scheme, has not survived, having been converted into a stairway to the roof by the client during construction.

The village of New Gourna, which was partially built between 1945 and 1948, is possibly the most well known of all of Fathy's projects because of the international popularity of his book, "Architecture for the Poor", published nearly twenty years after the experience and concentrating primarily on the ultimately tragic history of this single village. While the architect's explanations offered in the book are extremely compelling and ultimately persuasive, New Gourna is still most significant for the questions it raises rather than the problems it tried to solve, and these questions still await a thorough, objective analysis.

The idea for the village was launched by the Egyptian Department of Antiquities as a potentially cost-effective solution to the problem of relocating an entire entrenched community of entrepreneurial excavators that had established itself over the royal necropolis in Luxor. The village of New Gourna also seemed to offer Fathy a perfect opportunity to finally test the ideas unveiled at Mansouria on a large scale and to see if they really could offer a viable solution to the rural housing problem in Egypt.

The Village was meant to be a prototype but rather than subscribing to the current idea of using a limited number of unit types, Fathy took the unprecedented approach of seeking to satisfy the individual needs of each family in the design. As he said in Architecture for the Poor, "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 millennia. 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 zeros 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 twenty or thirty families, then the desired variety will naturally and logically follow in the housing."⁴

All of the architect's best intentions, however, were no match for the avariciousness of the Gournis themselves, who took every opportunity possible to sabotage their new village in order to stay where they were and to continue their own crude but lucrative version of amateur archaeology. Typically but mistakenly misreading the reluctance of the people to cooperate in the design and building of the village as a sure sign of the inappropriateness of both programming and form, many contemporary critics fail to penetrate deeper into the relevant issues raised by this project. These issues now, as at the time of construction half a century ago, revolve around the extremely important question of how to create a culturally and environmentally valid architecture that is sensitive to ethnic and regional traditions without allowing subjective values and images to intervene in the design process. In the final analysis, the portion of New Gourna that was completed must be judged on this basis.

More than twenty years after work on New Gourna had ground to a halt, the architect was drawn back to the site again by a project for a touristic village there. Ostensibly, the idea behind the complex was to somehow fulfill the unrealized potential of New Gourna's close proximity to the ferry landings on the bank of the Nile and the main highway that sustains endless busloads of tourists travelling back and forth from these landings to the Valleys of the Kings and Queens. Vast tracts of the site never occupied by the original village are left tragically vacant by the architect in the new scheme, which turns its back on the portion of New Gourna that had been built between 1945 and 1948. Narrow linear

pedestrian walkways separate long rows of shops and crafts workshops that present little or no wall surface to the east or west, but all face predominantly north and south, grouped around irregularly formed inner courtyards. These straight lanes stand in dramatic contrast to the diagonal paths of the original village, as does the size and purpose of the central square, which features a restaurant rather than a mosque as its focal point. The governing factor, of course, was the overwhelming wish to make this new graft join successfully to the existing village, for the sake of each half. Where the original village was essentially residential and private (except for the central area and crafts khan) the new centre was intended to be commercial and public.

While closed groups of offset housing units and winding streets effectively protect privacy and inhibit strangers from entering, they are not really conducive to handling large crowds of tourists or to encouraging sales, and so the pedestrian system was changed. A main gate, located on the western side of the existing plaza, is meant to link old and new. To further ease the transition between the two, a diagonal lane is continued on into the centre of the touristic village that has the same character as the main streets in New Gurna, before confronting the pedestrian with straight, tree-lined walkways lined with shops.

Pride of place, on the right hand side of this main gate, which joins the future and the past, is given to the "Mediterranean Centre for Culture and the Development of Creative Handicrafts", which, in a further permutation, is bisected to incorporate an Egyptian Centre as well as several other functions. Fathy's years in Greece, and the extensive amount of world travel that followed afterward, have obviously added a more sophisticated and cosmopolitan dimension to this second and equally futile return to Gurna, made unproductive by factors once again beyond Fathy's control. This complex, along with the ambitious Luxor Cultural Centre planned for an island in the Nile nearby, have only left the empty concrete shell of an unfinished auditorium as a lasting legacy.⁵

A series of houses designed immediately after the New Gurna experience, for Toussoun Bey Abu Gabal, Mme. Raymond Eid, Mrs. Aziza Hanern Hassanein, Dr. Alexander

Stopplaere, Mrs. Attiya Monasterli and the famous artist Shaahan Zaki, all bear meaningful comparison with the Mansouria Group of 1937, showing the authority and assurance of an architect now much more comfortable with his *métier* and his mission. While the Mansouria Group and the rural farms that followed soon afterwards are a bit naive, with extremes of space usage and scale, the houses that follow New Gournā are masterfully composed and organized, with much more control over a fully mature spatial system that characterizes the work. In the Abu Gabal house of 1947, a series of levels, joined by a carefully arranged sequence of stairs, separate increasingly private areas from more public zones, allowing only partially screened views from one section to another. While hidden from view in order to retain uniformly straight rooflines, a domed qa'a is introduced into the centre of the plan as a signature of the location of the main reception space. This qa'a, in turn is separated by an entire half level and a mushrabiyya screen from the family sitting room and its symbolically warming hearth above.

The Raymond Eid farm, while more familiarly domed and linear and less intricate in elevation than the Abu Gabal project, is equally involved in plan. Rather than using levels to separate visitors from the family area, however, the perpendicular axis first introduced in the Kallini house is here refined to once again provide separation by the use of circulation space and open areas. By placing a square entrance vestibule at the intersection of two main circulation paths, control over the degree of privacy required in each of the two wings is retained in an elegant, effortless way that gives order to the entire plan. The design for the Hassenein house that followed one year later reiterates the lack of focus on hemispherical forms shown in the Abu Gabal residence. Rather than surrounding the dome, as was done earlier, the round form is played down in the massing of the elevation by placing an upstairs wing in front of it on the major entrance side, and a high garden wall around the court that is directly related to it on the other side of the house. Once again, as in the Abu Gabal designs, levels are used to achieve spatial separation, although in a much more direct way. Tile and brick floor patterns, which appear as an integral and important part of the spatial design in all of the houses that Fathy as done from Haindi Seif al-Nasr onward, here once again clearly signal his choreography of each space.

The Stopplaere house, which dates from the year after New Gourna was completed, was designed as both a guest house for the Department of Antiquities and the headquarters and apartment of Dr. Alexander Stopplaere who was the chief restorer of the Department at that time. The architect's drawings of the house, which went through several revisions, all convey the difficulty of combining these two diverse entities into one, showing how the architect was struggling with the duality of functions involved.

The first scheme he attempted uses a square plan to group both sectors around two perfectly balanced parallel courtyards that are divided by a bisecting wall. The demands of a ridge-like, linear site, however, which is strategically located at the summit of a step ridge overlooking the main entrance into the Valley of the Kings and Queens at Luxor, eventually forced the opening up of the plan into an elongated rectangle. A skylit gallery, of a kind that first appeared in the Hamid Said house, is used to join both sides of the residence, and the bisecting wall of the original concept finally emerges as a fully expressed buttress in the finished building, effectively separating the main entrance and its garden from the private quarters of Dr. Stopplaere.

In spite of the fact that no "as-built" drawings for this project exist, the small collection of initial sketches that have survived provide a rare insight into the creative thought processes of the architect, and show how actual site conditions began to inform a beginning design idea. The photographs of the actual building are equally important in that they include interior views of both the rooms and the courtyards. As is the case with so many of Fathy's surviving works today, access into the Stopplaere house is now very restricted, which gives these interior views added significance.

The Monasterli house of the same year may seem to represent a complete philosophical and stylistic digression for Fathy at this particular time, but closer examination of the project indicates that regardless of the style and material used, all of his environmental and aesthetic sensibilities are expressed to a remarkable degree. Mrs. Attiya Monasterli, who commissioned the house, requested that it in some way reflect the feeling of the

grand Turkish palaces on the Bosphorus, and arranged for the architect to spend several months in Istanbul to study them. As finally realized, the house does seem to use the same general relationship to the water's edge, wood bracing of projecting windows and straight, horizontal roof-lines as its Turkish counterparts on the exterior, as well as using highly decorative ornamental plasterwork on the interior. These sources however do not predominate and other more subtle influences can be seen.

Having gained royal favour through excellence in military service, the Monasterli family was given a land grant on Roda Island and built a grand Selamlik there near the Nilometer, which they have since abandoned. The deep curved cornice, undulating balcony arches and even the deep russet colour of the new house echo those of its predecessor, as does its riverside position. Another interesting clue to the sources behind the design concept of this house revolves around the delicate dome-like wooden pergola that Fathy uses here for the first time to shade an open courtyard on the first floor, and which visually rewards both the formal procession up the main ceremonial stairway and lights the hallway serving the rooms around it.

In his remarkable series on Turkish houses, Sedad Hakki Eldem has included a rare old photograph of the Citadel in Cairo which shows a palace extension and harem built by Mohammed Ali that have since been demolished. A similar pergola may be seen on one of the buildings in the photograph, and it is tempting to speculate about the possibility of Fathy having seen it prior to its demolition. To follow the story of this particular pergola even further, it not only finds new life in many other of the architect's houses, such as the Akil Sami residence built in Dashur nearly thirty years later, but also has been used as the key focal point of the Sulaiman Palace in Jeddah by one of Fathy's most talented disciples, Abdel Wahed El-Wakil.

The question of sources aside, several basic relationships used in the Monasterli house clearly reveal the architect's fine hand at work. The first of these is his control of a long narrow waterside site that is tightly restricted by a main highway on one side and the edge of the Nile on the other. Characteristically turning what many other designers would

have found to be a liability into an asset, Fathy positions the various spaces in the house in order to take maximum advantage of the views up and down the river. Realizing that the east-west exposure of the elongated sides of the building would be tempered by the mature shade trees near the road as well as by the thick velvet draperies that would inevitably be used by the client, he focuses all attention on dramatic diagonal views from bay windows and open terraces placed at the corners of the house. In addition to orientation and siting, the concept of the central courtyard, which is now a constant in his work, continues on as a spatial theme here, reflected vertically in section as a shallow domed entrance hall at ground level, a shaded courtyard with fountain on the first floor and a sculptural pergola allowing filtered views into the courtyard below from the roof. The roof here is also typically considered an outside room, most certainly envisioned as a perfect place for parties and receptions because of the excellent views to the Nile below.

Several other residential designs of this period, such as those done for Shaaban Zaki, Mohammed Mousa and Baume Marpent Enterprises, intervened between the completion of the Monasterli house and a second, even more sensitive solution to a riverside site envisioned for the Alexandria Resthouse to have been located near Aswan. The scheme, which unfortunately only survives in rough sketches, once again shows the architect's skillful manipulation of landforms and the use of north facing views to the water.

Academic preoccupation with New Gournia Village has tended to overshadow the fact that several other community projects of various size and complexity followed after it, refining the lessons learned in that experience. Lulu'at al Sahara or, "the Pearl of the Sahara", which was built a year after the construction of New Gournia was stopped, is perhaps one of the least recognized of all of these, located on a side road some distance outside Cairo on the Agricultural estate of Hafez Afifi Pasha. Originally conceived as a group of support buildings to serve the sizeable number of labourers and their families who were working on the estate, the community facilities that were designed by Fathy consist of housing and a mosque-madrassa that were intended to augment other structures already existing on the farm. For the housing component, six units are joined together by party walls and grouped around a common interior courtyard. This court, in turn, is only

accessible at the corners in order to ensure the privacy of the residents within. Each of the houses is also planned around a smaller, irregularly formed inner court, with a long, diagonal stairway running along one wall up to two connected but ingeniously separate rooms above that interlock to face in opposite directions.

A guesthouse was also provided at the most remote corner of the cluster to be used by any of the families in the group who happened to have a visitor, or who had need of extra space during ceremonial celebrations. The community mosque and madrasa that Fathy designed for Hafez Afifi Pasha is a gem, and is kept respectfully pristine by its users. The drawings of this building that have been preserved document a design evolution related primarily to the location of the madrasa, and showing how a static axial position is changed to achieve a more dynamic, longitudinal relationship between the school and the mosque.

A second community-oriented project that followed New Gurna at this time was a Jesuit based crafts centre located at Garagos, which was intended to improve the standard of living of the people in the village there. The plan for a ceramics factory, while deceptively "low-tech" in appearance, represents an extremely logical and efficient production diagram for the manufacture of pottery. The spaces in the complex are organized sequentially, beginning with the delivery of the clay, which is available locally, through its screening, washing, preparation and storage and then on to the workshops where it is sculpted and formed. After sculpting, the pottery is fired, packed, stored and shipped.

The tricky problem of how to utilize the desirable northern exposure in all of the workshop spaces and yet maintain a compact, linear organization is solved by running all utilitarian spaces not used by the craftsmen perpendicular to the studios so that they act as dividing elements, and take up less room across the plan. The final spatial organization of the complex is not only arranged in a highly functional way, but also results in a satisfying horizontal massing of the elevation. The large curve of the dome covering the offices of the supervisory personnel on the one extreme, balanced by the thin vertical

smokestack of the firing kiln on the other, act as visual brackets for the undulating curves of the vaults that wave up and down between them. The volumetric composition of the centre as actually built is much altered from this first concept, with little of the grace of the original; remarkably it still functions as intended.

A cultural and health centre intended for the same village and client, however, was never built. Consisting of classrooms, weaving workshops and a clinic that all encircle a church in their midst, the complex echoes the same sensitivity to functional and aesthetic concerns that are shown in the pottery workshop. A tile factory designed to be built near the Dome of the Rock in Jerusalem at this time, by way of comparison, lacks the imagination shown in the original scheme for the pottery factory at Garagos, and is strictly utilitarian in character.

The dual disappointments of one vastly altered concept and another left unbuilt, which would have totally discouraged many other architects, did not seem to diminish Fathy's professional relationship with the Garagos community, however, judging from another documented design for a house intended to be built there nearly twenty years later. The silhouette of this modest building, as it emerges in several fascinating sketches surrounding the final version, becomes a play on the opposing angles of the Barasti trusses first used by the architect in a redevelopment project in Sohar, Oman. A direct graphic reference relates these angles to a set of malkafs that appear on a private house in an ancient Egyptian wall painting, which is sketched by Fathy in the margin of one of the drawings. This historical linkage, as well as the relieving arches that are modelled after those in the St. Simeon Monastery in Aswan, show the wide ranging variety of sources that are at the architect's command, as well as the novel way that he combines them.

The Harraniya Crafts Centre is a third community project, which like those of Lulu'at al-Sahara and Garagos, is much less well known than New Gurna, yet represents an important member of the group of examples of this typology designed by Fathy. Carried out in collaboration with the architect Rarnses Wissa Wassef, and the Ministry of Scientific Research, the centre was based on a dual belief in the natural creative ability of

children and the need for the material self-sufficiency to allow that natural creativity to have free rein. As the son-in-law of the famous educator Habib Gorgy, who first promoted these ideas in Egypt, Ramses Wissa Wassef became intrigued with the concept of a utopian, self-contained weaving village in which Gorgy's theories could be tested. Along with Fathy and Hamid Said, Wassef also believed in the critical importance of reviving national, traditional crafts in the face of the threat of expanding industrialization. The essence of the village, which radiates out from a man-made lake at its apex, is the reciprocal relationship between the housing units and the fields next to them. These fields, which were intended to sustain both the sheep from which the wool for the weaving would be taken, and the plants that would yield the natural dyes to colour them, symbolically alternate with the houses in which the young weavers live. In this way a repeating rhythm of protected agricultural areas and contained pedestrian streets is set up by the interlocking lines of the houses between them. The direct contact between the houses and the fields also allows the farm animals to be brought into the interior of each house, which is an important factor in rural Egypt, and was first attempted by Fathy in his design of the houses in New Gournah. As the plan progresses from the green agricultural perimeter towards the lake at its apex, it becomes more and more public in function, and this is where the majority of the facilities for weaving, selling, storage and shipping are located. Although never realized in the form documented here, the Ramses Wissa Wassef weaving village was finally built in Shabramant near Harraniya, and was the recipient of an Aga Khan Award for Architecture in 1983. The extraordinary tapestries woven by the children there have become the pride of Egyptian contemporary art, and are now exhibited in galleries throughout the world.

Following the flurry of activity generated by these community-based projects, Fathy also became interested in the possibility of providing an economical prototype for a school for the rural villages throughout Egypt. Studies for such a prototype were carried out by him in his role as the Director of the School Building Department, which was offered to him by the Egyptian Ministry of Education at the beginning of 1950. The school at Fares, between Luxor and Aswan, is the prototype that he put forward, and brings many of his previous ideas together in a single design. The plan of the school intentionally separates

the administrative and communal activities such as the mosque, library and assembly hall, which face east and west, from the repetitive ranks of the classrooms, which face north and south and protect a courtyard between them.

The classrooms, like the other areas of the school, were originally intended to be naturally ventilated, due to the extreme difficulty and prohibitive cost of providing mechanical means of cooling. To achieve this, the architect divided each classroom into a square domed area and a rectilinear vaulted space next to it. The domed area was intended to be the seating for the classroom, while the rectilinear space next to it was meant to contain a *salsabil*, or water pool, to further cool the air coming in through the slots in the vault above. Further ventilation was also expected to be supplied by operable casement windows that were paired with a circular fixed lunette specified to provide light only. In elevation, the rows of classrooms with their alternating slotted vaults and rounded domes clearly tell the story of their intended function, even though they are now partially screened by a boundary wall which has been built to separate them from a main street running alongside. The *salsabils*, however, were never installed, and the entire space is now used for teaching.

More than just an experimental individual project, the school at Fares did become the prototypical model that it was originally intended to be, having been repeated in the community of Edfu nearby. The continued use of both of these schools, which is directly due to their functional and environmental applicability, is enduring testimony to their good design. The work on the schools at Fares and Edfu, as well as a design for a prototype housing unit for refugees in Gaza, mark the end of a period in the architect's career in which exciting theoretical ideas were transformed into real buildings. This transformation, however, was not achieved without great emotional cost, and mounting resistance to Fathy's ideas within Egypt, as well as the changing political climate of the time, made him decide to seek greater professional freedom elsewhere. Because of his final discouragement over misrepresentations made about the final economics of the school at Fares, added to innumerable disappointments sustained earlier, Fathy decided to accept a position with the Doxiades Organization in Athens in 1957.

III. The Years in Greece 1957-1962

As a member of the Doxiades Organization in Athens between 1957 and 1962, Hassan Fathy enthusiastically entered into both the exciting intellectual and social milieu of the Ekistics Group, lecturing on climate and architecture at the Athens Technical Institute and joining an ongoing research project for the city of the future then underway there. The drawings for the Iraq Housing Program, which he did in 1958, reveal the extent of his participation, seemingly presenting indications of his conversion into the gridlocked ranks of the International School.

Closer examination of his drawings for the rural houses of greater Hussayih Village, however, which are in the same set, shows that his deeper concerns for the perpetuation of traditional values remain strong. The accompanying sketches for vernacular Iraqi "Tarma" houses that line the margin of his drawings show his wish that they be used as prototypes for future houses in the village, and that the old system of trapping cool night air in stone basements for reuse during the day also be incorporated in the new designs. The housing units that result from these studies are just as eloquent and regionally relevant as any of those done in Egypt prior to his departure.

Several of his attempts at innovation were unfortunately much less relevant, such as a mosque designed for the Punjab at this time. This building, along with another large mosque and conference centre for the Sudan that followed in 1970, and a house for his publisher that was intended for Aspen, Colorado, inexplicably used a geodesic dome in combination with diverse vernacular elements. While the geodesic dome covering the main prayer space in the Punjab example may be explained in terms of the large structural span involved, the other two cases cannot, seeming to be more directly related to the ability of the geodesic dome to provide light through glass panels placed between the ribs of its supporting frame.

While the use of this new, flexible and ultra-light structural system which was then being popularized by Buckminster Fuller may seem out of place in these three buildings, the

fact that Fathy did experiment with it shows that he continued to stay informed of the latest technological developments affecting his profession.

The social circle that Fathy joined in Athens, as well as his selection for a special mission by the Doxiades Group to study the existing housing situation in each of the countries in Africa, allowed him to appreciably increase the number of his acquaintances, and some of these invariably became clients. His design for a villa for the Ambassador of Nigeria, to be located in Niamey, as well as a proposed residence for Mr. Shri Ahmed in Hyderabad, India, point to his expanded internationalism and increasing awareness of the special environmental and cultural conditions in other parts of the world.

Not all of the designs that he did while he was in Athens were for projects outside the country, however, as the sketches done for Mrs. Marion Carr, who was also a member of the Doxiades Community, clearly indicate. The two variations in plan and elevation that were done for this house provide inventive variations within the same building footprint, and yet still manage to respect local conventions of construction techniques. The core of the design, in each case, is a deep set, open courtyard which serves to give a central focus to each of the two alternatives, and is equally expressed in the front elevation of both. There is some confusion about the final status of this design, which is often listed as having been built, but which both Panayotis Psomopoulos, who is currently the President of the Athens Centre of Ekistics, and John Papaiaonou, who is its Secretary, insist has not. Mrs. Carr, like Fathy, was an aficionado of Cycladic architecture and travelled widely throughout the islands there, finally selecting one of them, and not Liopessi, as the place for a vacation house. In spite of his self-imposed exile in Athens, the architect managed to maintain close connections with Egypt, and to complete an interesting series of projects intended for clients there. While the modernistic, rounded forms of the flat intended for his brother Ali may hint at the continued International Style influence of the Ekistics group around him, the smaller scale designs proposed for the Maarouf Apartment Building, the Touheimi Stables and the Attiyya Restaurant all tend to balance out this trend.

The High Institute of Social Anthropology and Folk Art, which is one of the most ambitious of all of the projects designed in Egypt during the Greek period, unquestionably confirms his dedication to natural systems and vernacular forms, and was intended to present a synthesis of Egyptian cultural history in a single place. The Institute, which was commissioned by the Ministry of Culture, was seen as a potential arena in which to emphasize the most glorious architectural periods in the nation's history through the replication of many of its most famous monuments. These models were meant to be set amongst modern facilities such as concert halls, museums and galleries for the performance of music and dance and the display of Egyptian art.

One of the most predominant groupings in the scheme presents a re-creation of four of the greatest qa'as of Medieval Cairo as sculptural objects to be appreciated and studied. The elegant and stately towers of the Musafirkhana Palace, as well as those of the Beits Gamal-Adin Dahabi, Souheimi and Katkhoda, are here allowed to escape the disrespect, misuse and neglect that they now suffer in their original context.

IV. Return to Egypt 1962-1978

The two decades following Hassan Fathy's return to Egypt in 1962 unquestionably represent the most productive period in his entire career, and this productivity also extends to the number of documents generated during that time. In addition to a typically large proportion of residential projects, this highly prolific era is also characterized by commissions that run the gamut in scope from nurseries, to pilot projects for entire communities.

The first of Fathy's residential projects upon his return to Egypt is small in scale but has a combined effect that far exceeds the physical size of the area concerned. In order to personalize her own apartment on the sixth floor of a building designed by another architect, Shahira Mehrez asked Fathy to try to work within the existing framework to create a more varied and individual series of spaces for her. Using the central stairway of the building as a dividing line between the areas set aside for a private apartment and a commercial space to be used for the sale of traditional Egyptian arts and crafts, Fathy turns the seemingly inflexible restrictions of exterior wall locations, structure and circulation space to his own advantage. By using variations in vertical scale, as well as level changes and highly detailed surfaces and forms to particularize each zone, the architect manages to expand the feeling of space in what might otherwise become an impossibly congested rabbit-warren of rooms. The private apartment itself, which is shown in some detail in an otherwise incomplete plan, consists of a majlis-type sitting room with a fireplace and a small library. In addition, there is a similar sitting space reproduced on an outside patio, a formal dorqa'a with another fireplace, a kitchen, and a master bedroom suite which includes a dressing room and a skylit sunken Japanese bath. The spatial variety, richness and charm of this apartment, which is also greatly enhanced by Miss Mehrez's choice of furnishings, carpets and fabrics, makes it difficult to believe that it is located in Dokki, in the heart of urban Cairo.(8)

The Rushdi Said and Fuad Riad houses which followed soon afterwards both express an ineffable spirit that set them apart from all of Fathy's preceding work. This spirit, which

is partially traceable to many diverse sources successfully joins potentially discordant elements together in delightful ways. The Fuad Riad house, which was the only one of the two to be built, seems to achieve total unity with its surroundings, in the midst of the palm-studded green fields that rim the desert near Abu Sir.

As the first of what might be called Fathy's "stone period" houses, which were prompted by a governmental ban on the use of mud brick, the Fuad Riad design sets out to solve all of the clients functional needs, as well as proving the irrelevancy of the specific kind of compressive material chosen upon the architect's basic spatial system. Tucked down below a wall that protects it from the heavily travelled Saqqara Road nearby, the house appears to be almost insignificant from the public side, and only reveals itself from the interior or from the private gardens that join it to the oasis beyond. The low, horizontal scale of the structure, as well as the sensitively handled level changes within it, all tend to tie it to the land and give it a timeless sense of permanence and belonging. Dr. Riad had originally intended to only use the house during weekends and vacations but has now come to love it so much that it has become the permanent residence for the family. As in many of the architect's later projects, the lack of on-site project management has resulted in significant changes in his intent, but the strength of the original concept remains intact.

The same amplified unity between the natural and the man-made that pervades the Fuad Riad house, as well as its higher level of ethnic associations, also filters through the other residential projects of this period. These qualities, as well as a heightened relationship between scale, structure and detail, can be easily identified in the Prince Sadruddin Aga Khan house, as well as the villas for Princess Shahnaz, Dr. Rateb Seddick, Dr. Murad Ghaleb, and most particularly in the house that Fathy built for himself in Sidi Krier, near Alexandria, in 1971. If it is true that an architect's own home most clearly expresses deeply held principles, the house at Sidi Krier describes a very private and modest man who is also very aware of his public role. The long rectangular plan of the house has two quite different sides on its extended elevations. Situated between the Mediterranean and the shore road running from Alexandria to Sidi Krier, the building gains privacy by turning a blank wall toward the highway. This wall yields only a few small clues to the

functions beyond it, which are marked by projections or penetrations in an otherwise flat expanse of plastered limestone. The side facing the water, however, opens wide arches toward it to allow views from the courtyard as well as from the qa'a that is related to it.

In time, however, the architect filled these archways with claustrawork and raised the arcade wall to be more protective against unwelcome intrusions from the beach. By constantly experimenting with this most personal of his designs, Fathy has also changed the aspect and location of the various open roof terraces, which here work as outside rooms with select views toward the sea.

The local planning commission at Sidi Krier was so impressed with the style and economics of this house that they approached the architect with the commission for a large resort community to be designed in the same way for this area. The first stage of this project, which is all that has been documented, continues many of the attitudes taken in Fathy's residence, making it one of the most revealing of his works intended for the public.

Between 1973 and 1975, Fathy became involved in several other residential projects in the Kingdom of Saudi Arabia. The first of these to be completed, other than a rather straightforward duplex apartment in the same city, was a house in Jeddah for Dr. Abdul Rahman Nassief, who has long been a staunch advocate for a traditionally based architecture in his own country. The philosophical direction of this house, which would still be most controversial today, was especially novel in a city then caught up in the oil boom and the influx of International Style architecture that followed. Dr. Nassief's far-sighted support of Fathy's ideas, which have since found broader acceptance in a country that now realizes how much of its fragile architectural heritage has been lost, was quite courageous when first offered. His personal concern in this area has not diminished, but has since lead him into many other related areas.

One minor and completely incidental repercussion of these wider interests has been that due to a specific interest in Moroccan cuisine in the family, one portion of the house has

now been opened as a restaurant serving this type of food, with a consequent change in the architect's plan.

Interestingly, the house was built with stone block recovered from the demolition of the traditional tower houses in the old city, which the client unsuccessfully tried to save. Rather than using the familiar dome over the majlis here, the architect felt that an octagonal shukshieka would be more regionally appropriate, and the use of this particular element carries over into a larger house designed in Tabuk soon afterward. In the Tabuk example, two dynamically offset qa'as, linked by a passageway, serve to anchor the plan. This passageway, in turn, serves as a spine that spans between an open, central courtyard on one side and a large, public majlis with its related dining area on the other.

This particular configuration of qa'a and courtyard, which does have a historical precedent in both Makkah and Medina, coincidentally seems to have had a great influence upon Abdel Wahed El-Wakil during his own design of a house for Sheikh Sulaiman in Jeddah in 1976. In this further usage, only a single qa'a graces the nearly seventy-metre-long elevation, and becomes its prime focal point. It should be noted that Fathy's drawings for the villa in Tabuk, which are exceptionally extensive, contain a fine section on woodwork details which codify the architect's long experience in this specialized area in an almost encyclopedic way.

Under the auspices of the United Nations Rural Development Project, Fathy also designed a prototypical housing unit for the village of Dareeya at this time. As the patriarchal home of the Al-Saud family, Dareeya intrigued him because it had once been an outstanding example of Najdi mudbrick architecture before its destruction in the factional struggles that lead up to the unification of the country under King Abdul-Aziz. The Dareeya prototype is not only a masterful interpretation of one of Saudi Arabia's most symbolic regional styles, but also offers valuable clues to the process involved in that reading. The documents, which include a survey of a typical existing house in the village, carefully show how each of the rooms relates to an interior courtyard, and achieves the separation of male guests from the family quarters within. The new proposal

mirrors these sensibilities to a great degree, even to the extent of the location, sequencing and proportion of the rooms involved, and the use of the roof as a sleeping area on hot summer nights. Typical Najdi decoration, such as wall crenellations, cuneiform vents and elaborate column capitals are also used to establish a stylistic connection with the past architecture of Dareeya. Finally, critical shading diagrams are used to show how courtyard proportions of height and width were established to produce maximum shading and how diurnal and seasonal zoning mandates the final positioning of spaces within the house. One of these prototypes was actually built, but local resistance to a traditional architectural approach prevented its repetition.

The Sabah Palace in Kuwait is the last documented residential project to have been completed in the Gulf and was commissioned by His Highness Prince Nasser Al-Sabah in 1978. In plan, the house represents one of the clearest expressions to date of Fathy's consistent considerations of public and private space, which manifests itself in two totally separate sections offset along a central rift line that acts as a wall between them. The massing of the building also emphasizes this intentional rift, with a high malkaf proudly announcing the location of the central courtyard in the interior. The pergola used over this court is also a familiar image, having been used in the Monasterli residence nearly thirty years before.

The residential efforts of this highly productive period were concluded with two diametrically different but culturally valid concepts, also carried forward to a great extent by the clients themselves. The first of these, for Dr. Akil Sami on a site in Dahshur, Egypt, joins the ranks of the Fuad Riad, Greiss and Casaroni houses in this area as one of the architect's later works carried out in stone. As in the Monasterli and Sabah houses, a wooden pergola figures prominently in the design of the inner courtyard creating an especially memorable image in this rendition. The second design, called a "Ribat" for Alpha Bianca, in Alcoudia, Majorca, is less easily characterized, in its reference to a typology once used as a fortress-palace in frontier conditions in the past.

A house of similar concept, also claiming creation by Hassan Fathy, has been commissioned by owners Yannick Vu and Benjamin Jackober, who are artists living in Majorca, and apparently approached the architect with the basic idea of landscaped terraces forming an elaborate interior courtyard'. The exact connection between these two projects is still unclear at this point.

Fathy's public, socially-oriented work at this time is no less inspired than his remarkable residential projects, and matches them in diversity and interest. Beginning rather modestly with commissions for the Boulac Social Centre in 1968, the Khoronfish Nursery of 1969 and an archaeologist's quarters for the I.F.A.O. in early 1970, the projects expanded throughout 1971 to include a laboratory of natural medicine for Aboul-Eichre, a redesign for the Souk al-Silah, and a novel scheme for the Nasser Mausoleum. This Mausoleum is a significant philosophical departure for Fathy on several levels, mixing Pharaonic and Islamic influences to provide a thoughtful solution for a difficult site.

A series of mosque designs also done at this time continued to test Fathy's site planning abilities, intended for irregularly-shaped and traffic-bound plots in Tripoli, Lebanon, and Abbassiya in Cairo. In the Tripoli Mosque, lot space seems to simply run out, forcing the architect to amputate the madrasa adjacent to it. The Wehda Mosque in Abbassiya seems to be more comfortable within the tight structures of its boundaries, in spite of an existing monument on the site that had to be accommodated, and the obligatory parking spaces that are relegated to an elongated segment of the triangular property. While in limited supply, space is still found for a wide entry plaza which Fathy thoughtfully raises to separate the mosque from the street. In addition to this raised plaza, a ziyadah is used to further isolate this quiet religious world from a large expressway that borders one edge of the site. The mosque for Tanta, Egypt, for Aref Ahmed Badawi, has no such size limitations, but because of its urban location it also required special tactics to screen it from vehicular noise. The approach taken in this instance is a long arcade which in turn becomes a powerful visual datum for the intricate Mamluk domes and minaret that seem to float above it.

No other project dominates this mature phase of the architect's work as much as the village of New Baris, in a way that is comparable to the notoriety of New Gourna twenty years before. There are so many contrasting factors between the two projects that it is beneficial to examine the parallels between them. Discovery of a large water well sixty kilometers south of the Kharga Oasis in 1963, which had been estimated to have the capacity to continuously irrigate up to 1000 acres of land, led the Organization for Desert Development to propose an agricultural community here at that time. This remote and forbidding wilderness outpost, which is almost in the geographical centre of Egypt, was planned to initially house 250 families, of which more than half were intended to be farmers and the remainder to be service personnel. His previous experience with such a project, and particularly his ability to build it inexpensively, made Fathy the logical choice as the architect for New Baris. Unlike his previous experience at New Gourna, however, where he could actually study and interview his "clients" and the houses and community buildings they had previously used, the potential occupants of New Baris were a totally unknown quantity. As he himself describes it: "Baris was an interesting problem in which I was to create all the parts of a community, to bring together in the best manner possible people whom I did not know. All that I had at my disposal were demographic, geographic and climatic surveys. I had to provide the aesthetics, the sense of man in a space constructed by man". Without a visible clientele to design for, Fathy concentrated on a thorough study of both the traditional architecture and climate of the region. In addition to examining the fourth century AD mudbrick ruins of the necropolis of Bagawat nearby, he also closely observed the existing village of Kharga, where the material used, as well as the width and orientation of the streets and introverted forms of the houses effectively offset summer temperatures as high as 50C degrees that could potentially cause serious physiological problems for the people living there.

These considerations, along with the additional need for the cold storage of the fruits and vegetables grown by the community prior to shipping, and the impossibility of providing air-conditioning, led Fathy to focus on natural systems as the formative influence on the new village. For this reason, the souk, or market place, became the active heart of a community which spirals out to fit a rather steeply graded ridge on either side of it. This

souk, and other communal buildings around it, differ from their predecessors at New Gournah both in the more realistic choice of functions represented and the compactness of the open spaces between the buildings themselves. To solve the problem of the cold storage of perishables, Fathy turned to the physical solutions provided by the thermal mass of materials used and the manipulation of natural air movement as the only possible answers. By putting the storage areas below grade and refining the malkaf designs he had used previously by adding baffles, incrementally reduced airshafts and secondary towers to accelerate circulation, temperature reductions of up to 15C degrees were achieved. His success in overcoming potentially insurmountable obstacles with previously untested natural methods, as well as the undeniable visual power of the resulting forms, make Baris a tectonic lesson for all architects today. The souk there is the best advocate yet for the architect's contention that true modernity comes from solving physiological and psychological needs well and not from the application of mere style.

This approach also continues throughout the domestic quarters of the village which, again unlike New Gournah, are organized along relatively linear north-south streets to take advantage of the shading that the buildings can cast on the streets throughout the day. In addition to this, the houses themselves are clustered around courtyards which are joined by taktaboosh to adjoining open areas and eventually to the pedestrian way itself, so that a combined convective system provides continuous airflow. Fathy had previously seen the effect of this kind of natural system planning along Al-Muizz Street in Mediaeval Cairo, and had noted how the houses interacted with the hierarchy of streets in a synergistic way. Dr. Omar Al-Farook, who had studied with Fathy, joined a team from the Architectural Association of London in a study of this phenomenon in 1973, scientifically measuring the temperature and humidity in several of the courtyard houses, as well as in the main and side streets of Al-Muizz at several times during the day¹². Their final report confirmed a close connection between all three spaces. They particularly noted that the large houses in this area frequently have two courtyards, which are divided between a "soft" landscaped area which is located on the northernmost side of the house to capture the prevailing breeze, and a "hard" paved court separated from the first by a taktaboosh, which is open on the ground level to allow the passage of air

between the two. As the "hard" court heats up toward midday, when the sun is almost directly overhead, the heat rises, causing an upward convective current that draws the cool air trapped in the landscaped courtyard through the open taktaboosh and into the paved court beyond. This convective cycle extends further out into the street as well, because as the wider expanse of Al-Muizz heats up, it draws in the cooler air from the side streets adjacent to it, which in turn is replaced by air from the courtyard houses beside them, completing the cycle. Vaults between each of the private courts in Baris, as well as between these courts and the narrow shaded pedestrian streets, were meant to imitate this interrelationship on a larger scale, but because the village was never built the application of these observations was never tested,

The Desert Development and Reclamation Bureau also instituted a Co-operative Neighbourhood Project for Kharga as well as a Training Centre to be built in conjunction with New Baris, which were both intended as service organizations to provide the technical personnel needed in the community. These were both partially built at the same time as Baris but suffered the same fate as the village they were intended to serve.

While plans for New Baris were underway, Fathy was commissioned by the Sultan of Oman to help to plan the redevelopment of the central commercial area of the port city of Sohar, which had been destroyed by fire. This market, which was to be built in several stages, was to be located near the shoreline and was designed to benefit from the almost constant breezes from the water toward the land. Divided into sections related to the items for sale, this market was based on a 3.60 metre module, to be covered exclusively by barasti trusses. Fathy felt that this new adaptation of a traditional roof covering was more appropriate to the region, inexpensive to build, and more effective in gathering and funneling the sea breezes into the shops. The alternating wedges of the barasti truss roofs arranged on top of the commercial spaces give the long, linear market a lightweight and almost sail-like aspect when seen from the seaside which is very sensitive to its location.

Two other community projects, for the Wadi Zarga area of Tunisia in 1978 and for Minia, Egypt, in 1980, followed those for New Baris and Sohar, continuing to provide an

opportunity for Fathy to refine the ideas first launched at Gournah. The Minia design in particular is an unmistakable and valuable lesson in ways to segregate vehicular and pedestrian circulation within a high density-housing cluster. In this case, the added dimension of providing access for farm animals from the fields, into stables within the cluster without crossing vehicular roads, has also been accepted as a challenge, and has been successfully solved.

His major involvement in community projects of such magnitude did not preclude Fathy's acceptance of more lighthearted commissions at this time, and tourist related activities were to occupy a surprising amount of his time for the remainder of the 1970's. The first and most involved of these, called the Nile Festival Village Project, was intended to be sited on the Tarh el-Bahr Island in the middle of the river near Luxor. Moving through three distinct permutations during a six-year period, each of the schemes are dependent upon a central docking area for the boats needed to bring visitors to the island. The first of these, dated May 1976, divides the landing areas between the island's northern and southern shores, with a series of pedestrian ways progressing at right angles toward the tightly clustered bungalows at the centre of the complex. A second scheme, done in August of 1977, reverses this arrangement by concentrating all boat arrivals at one main quay on the southern shore and puts the major guest facilities, such as reception, theatres, restaurants, banks, swimming pools and a crafts khan, in a band spanning the entire width of the island. These public facilities, in turn, displace the guest bungalows to the outside edges of the village, in what seems to be a more logical arrangement. A third and final design, done in March of 1982, refines this approach even further by greatly accentuating the interlocking of land and water at the main landing. The final result of this dramatic design decision is to make the entrance from the boat to the reception area even more ceremonial. For some inexplicable reason the contours of the island have changed in the third design, possibly due to the erosion of the shoreline in the intervening years, and in the interim, the need for easier access from perimeter bungalows into the central area has altered the distribution of the units once again. Regardless of all the time and care spent on these changes, however, this project, like another of the same type for the Shukri brothers on a site in Giza, has yet to be realized.

V. Late Work 1980-1988

Taken as a group, the eight residential projects designed between 1980 and 1988 are notably different from those completed in the decade and a half that precede them. While the spatial themes that have now become so familiar remain constant, the architect's ability to reflect the variations of each client's personality within those themes seems to have noticeably increased.

The Murad Greiss house, which begins the last decade, makes several obvious concessions to the fast-paced, contemporary life-style of its owners, incorporating a swimming pool and enlarged bubble-shaped picture window in an exterior courtyard. These concessions, however, are peripheral to a deceptively sophisticated architectural statement. In it, a vaulted passage running perpendicular to the main volume of the house sets up a repetitive counterplay in the plan, eventually emerging to become a strategically placed Taktaboosh separating two courts on the outside.

The Greiss house, which is very compact, is also surprisingly generous in its inner feeling of space, partially due to the lightness of the limestone used in its construction. The building has also benefited a great deal from the involvement of the clients, particularly in the possibilities offered by the use of traditional crafts throughout.

The Casaroni residence, or "Mit Rehan" as it has been called by its owners, is very near the Greiss house on the Shabramant Road, and is one of the most elegant of Fathy's residential works yet to be built. Construction was once again overseen by the client rather than the architect, more specifically by Mahmood Fahmy, who saw to its timely completion. In the interim, Fahmy was also able to cooperate with the architect in solving several special problems. One of the most fascinating of these was finding a natural way of sealing the Fayum limestone that was used by coating it with boiled oil from the Helba plant so that the soft yellow colour of the stone would not change. The house as built is quite different from the final documents, with a first floor added over one entire portion during the course of construction because of the client's wish for more space. Most

recently, further changes have been made, which have significantly altered the character of a delightful south facing terrace and taktaboosh, as well as the interior quality of many of the rooms.

Mit Rehan and the other Shabramant houses notwithstanding, 1980 also marked the beginning of one of the most ambitious residential projects of this or any period in the architect's career, carried out for the late President Anwar Sadat. Intended as a rest house to be used on official trips to the isolated area around Lake Nasser in Nubia, the residence is actually made up of three separate buildings sequentially organized according to the status of each.

The first of these, which is located across from the parking area related to the main entry, was designed for the security police and body guards that accompanied the President on all of his official trips. Laid out like a caravanserai, the long and narrow one story structure has two different types of rooms with corner suites intended for men of higher rank. A single building located in the middle of a green strip of interior courtyard, in the position once reserved for a guard who kept order among the caravans in the past, is here turned into a dining hall so that the entire building may be totally self-sufficient. The second part of the complex is separated from the security block by a landscaped area and was intended for extended family and important guests. Joined to the President's house by a walled garden and a raised terrace that was to serve as an entrance platform for both, these quarters are essentially individual houses arranged within a walled compound. Divided into four large units on the southern side and ten smaller ones in both the centre and on the north, these houses are separated by narrow walkways and penetrated by courtyards that are open to the sky.

The Sadat resthouse, which occupies pride of place next to the water, is also divided into formal and informal areas which are each sized according to their needs. The formal area, which runs perpendicular to the entry, is a large vaulted space with a high dorqa'a set uncharacteristically off-centre within. This dorqa'a, in turn, relates to the open courtyard next to it as well as to a view to the lake, which is framed by the arcade defining the

court's outer edge. Strategically located doors lead through a massive wall and past a smaller court into the family quarters, where many of the rooms also benefit from select views to the water.

Dichotomies rarely found in any other architect's practice have continuously enriched Hassan Fathy's work, and a relatively minor project done at this juncture highlights these contrasts well. A house designed in 1981 for his Master Mason Alaadin Mustapha takes on added significance when the long collaboration between these two men is closely considered. Mustapha not only introduced Nubian construction techniques to Fathy, but also implemented them in many of the projects built in the forty years since. One of the most important features in Mustapha's own house is the main doorway, which is the only interpretation of a Nubian-style portal found in any of the architect's work since Balitim. Perhaps when he designed it, Fathy was thinking of an experience he had described in 1967, when he said, "I have found a similar case when I was in charge of building the village of New Gourna, near Luxor. I asked Muallim Alaadin Moustapha to decorate the main entrance door to one of the houses in any way he wished. He designed some hieroglyphic symbols on top of the door representing God, the earth and the mountains, between a five-pointed star. When I asked him how he knew about this symbol, he told me it prevented the "evil eye". He didn't realize that it was a hieroglyph. It so happens that optimism and pessimism pass from generation to generation even when people change their religion. The constancy of the Nubians in using these decorations for their front doors is due mainly to the fact that they are so isolated which has allowed them to continue as a prototype since the time of the Pharaohs."(13)

The plan itself is also a direct interpretation of a traditional Nubian house as found in Abou el-Riche or Gharb Aswan today, which are both among many such villages previously surveyed by the architect.(14) In this reasonably literal translation, the symbolic doorway leads directly into a sequence of rooms lined up on either side of an open entrance vestibule which are each related to the entertainment of guests. A long, vaulted room to the left of the main door, with built-in seats, or "mastaba" set between the piers that support it, is set aside for larger, special ceremonial functions just as in the

traditional model. A smaller, square muddiffa on the right serves smaller groups, or individuals, who might visit on a more frequent basis. A door at the rear of the entry vestibule leads across an open court and up a short flight of stairs to a corridor serving all of the private family rooms strung along the rear wall of the house, which are visually and physically cut off from the guest rooms in front. This corridor also leads directly outside into an enclosed service court with its own exterior access. While in the established Nubian prototype this yard is almost always set aside for animals, the only function specified by the architect in this case is the storage of fodder.

These two houses, for a President and a humble Nubian Muallim, have most recently been followed by four designs, for Hatem Sadek, Gerald Andrioli, Hassan Rashad and Khaleel al-Talhooli, respectively.

Perhaps more than any other recent residential examples, the Andrioli house represents a compromise between a strong-willed architect and a client who were each determined to have their own point of view prevail. As with any compromise, the result is not as well-defined as it might otherwise be, since the principles of more than one personality are expressed.

During his tenure as the project manager responsible for the construction of the second Meridien Hotel in Cairo, Gerald Andrioli approached Hassan-Bey to have him design a house for a site on a steep slope near the village of Tunes al-Gabal overlooking Lake Fayum and the desert beyond. Abdullah Kuwatly, on Fathy's staff, was consequently given the responsibility for coordinating the design, as well as for producing the working drawings and overseeing the construction of the house. Because of his professional experience, the owner cooperated extensively in this effort, and also proposed certain design changes. These changes, such as a reduction in the rise of the main dome over the qa'a, so that it was more in keeping with the owner's interpretation of the architectural character of the village nearby, as well as the use of solid, brightly-coloured shutters instead of the specified mushrabiyya screens, significantly changed the character of the house. In addition, an interior iwan meant to be screened from the exterior for privacy,

finally emerges as an exterior terrace overlooking the slope and the lake view in the distance, in one of the first usages of an exposed terrace since the Hamdi Seif al-Nasr house in 1944.

As a simple weekend retreat for the owner and his family, the house now simply consists of an entry vestibule, a qa'a and iwans with their outdoor terrace, a master and guest bedroom suite with bath, and a garage and storage area. An interesting influence of the construction of the Andrioli house in this part of Fayum has been to increase the interest in building in mud brick here, since the area does not fall under the restrictions related to other irreplaceable arable land in the Nile Valley. This renewed interest has resulted in a vernacular colony of sorts, in which Omar al-Farook, who is also a past pupil of Fathy's, has decided to design a house for himself.

The Hasan Rashad and Khaleel al-Talhouni residences which are the latest represented in the collection, are relatively unknown and have received very little critical attention.(15) The al-Talhouni house especially, which is located in Ghur Numreen, Jordan, provides ample opportunities for fresh analysis, with its novel approach to the use of space. The provision of guest facilities here, and the way in which they affect the final form, is particularly important.

While the Dar al-Islam Village, designed in 1980 for Abiquiu, New Mexico, chronologically supersedes these final residential efforts, it provides a fitting conclusion to the brief review of Hassan Fathy's work presented here. All of the empirical lessons learned with such difficulty and at such great professional expense at New Gurna, Lulu'at alSahara, Harraniya, Sohar, Baris and Minia are all traceable here in a very legible way.

The village which occupies an eleven-square-mile site on a plateau above the Chama River Valley, is intended for one hundred and fifty Muslim families to be grouped into comprehensible neighbourhood clusters. These clusters, which present little wall surface to the east and west for better thermal performance, all relate to a main square in the

middle of the community, and a secondary "piazza" nearby, which provides a place for everyone to meet. A mosque, which has been the first building to be built in the community, is located in this piazza, and also includes a madrasa which is attached to it. The mosque itself, which still awaits a minaret, is compact and fine, based on a nearly square plan that provides a forward prayer space for men and a screened area for women in a very efficient way. While the architectural style chosen for the village may seem foreign in this western context, it does have much in common with the local, adobe tradition. Judging from both the technical and economic complexities involved in using adobe here, however, it would seem that the intentional choice of this material and style was made for iconographic, rather than environmental or cultural reasons.

The real lesson of Dar al-Islam, which may fairly be considered to be a symbol of the culmination of all of Fathy's work, is that he himself has now become a part of the cultural mythology that he has fought so hard to recreate. Because of him, and the incremental victories represented in his documentary legacy, this village could be built.

Notes

1. M. Richards, Ismail Scrageldin, Darl Rastorfer, Hassan Fathy, Mimar, Concept Media Pte. Ltd., I Grange Road, Singapore, 1985, p. 34.
2. The Royal Society of Agriculture Farm is not documented in the Archive. Fathy has described the Ezbet Al-Basry project in great detail in his book *Architecture for the Poor*, University of Chicago Press, Chicago, 1973.
3. For accurate, survey drawings of the house as it was finally built, see: James Steele, Hassan Fathy, *Academy Editions Monograph*, London, 1988.
4. Ibid. p. 65
5. See the last section of this book for documentation of the Luxor Cultural Centre.
6. For survey drawings of the School at Fares, see: James Steele, *op. cit.*
7. Fathy describes his decision to leave Egypt at this time in *Architecture for the Poor*, University of Chicago Press, Chicago, 1973.
8. For a final surveyed drawing of the Shabira Mehrez apartment, see: James Steele, *op. cit.*
9. G.Y. Dryansky "Ninety-four doors", *Architectural Digest*, August 1985, pp. 120-125.
10. For a thorough description of the Souk El-Silah, see the special issue on Hassan Fathy published by *L'Architecture d'Aujourd'hui*, p. 195, February 1978.
11. James Steele, *op. cit.*
12. Omar El Farook, John Norton, Wendy Etchells, Jocelyn Levaux, Allan Cain and Farokh Afshar, *Climate Study; Traditional Houses*; London, Architectural Association of Architecture, 1973.
13. James Steele, *op. cit.*
14. Ibid., The relationships between the house plans are particularly striking.
15. Ibid. The photographs of the Hasan Rashad house, when compared to the intended plan, show the changes that have been made during construction.

Appendix

Projects	1934	1938
<i>Date of Design</i>	Villa	Village
<i>Building Type</i>	EI-Beyli Villa	Hayat Village
<i>Project</i>	Beyla	Cairo, Dokki
<i>Location</i>	1011637	1011644
<i>Code</i>	Egypt	Egypt
<i>Country</i>	1934	1938
1928	House, Shops	Villa
School	Madkour Housing and Shops	Heshmat Villa
Talkha Primary School	Cairo, Mouski	Cairo, Dokki
Talkha	1011638	1011645
1011631	Egypt	Egypt
Egypt	1934	1940
1930	Villa	Villa
Villa	Malek Villa	Badran Villa
Hosni Omar Villa	Cairo, Zeytoun	Location unknown
Cairo, Giza	1011639	1011646
1011632	Egypt	Egypt
Egypt	1937	1940
1930	Villa	House
Villa	Garvice Villa	EI-Bakleya Resthouse
Sada Al-Barreya Villa	Cairo, Alexandria Road	Bakleya
Forum Al-Khalig	1011640	1011647
1011633	Egypt	Egypt
Egypt	1937	1940
1930	Villa	Village
Kiosk	Taber Al-Omari Bey Villa	Harraniya Weaving Village
La Giardinara Kiosk	Fayum, Sadamat Al-Gebel	Harraniya
Cairo, Boulac	1011641	1011648
1011634	Egypt	Egypt
Egypt	1938	1940
1932	Villa	Hospitals
Casino	EI-Harini Villa	Hospitals
Bosphore Casino	Giza	Various locations
Cairo, Bab Al-Hadid	1011642	1011649
1011635	Egypt	Egypt
Egypt	1938	1940
1933	Villa	Farms
Printing Shop	Fathy Villa	Rural Farms
El-Kachkacin Printing Shop	Kom Al-Akhdar	Various locations
Cairo	1011643	1011650
1011636	Egypt	Egypt
Egypt		

1941 Villa El-Razek Villa Abou-Gerg 1011652 Egypt	1945 House Kallini House Menia 1011658 Egypt	1950 House Monasterli House Giza 1011617 Egypt
1941 Villa Farid-Bey Villa Shalkan 1011653 Egypt	1946 Village New Gourna Village Luxor West 1011614 Egypt	1950 House Stoppelaere House Luxor West 1011618 Egypt
1941 House Takla Pacha Rest House Kafr Al-Hema 1011654 Egypt	1946 Mausoleum Hassanein Mausoleum Cairo 1011659 Egypt	1950 Mosque Mosque in Punjab Punjab 1011663 Pakistan
1942 House Hamid Said House Marg 1011612 Egypt	1947 House Toussoun Abu-Gabal Cairo, Giza 1011660 Egypt	1950 Cultural Centre Cultural Centre Garagos 1011664 Egypt
1942 House Children Nitrate Co. Rest House Safaga 1011655 Egypt	1948 House Eid House Zagazig 1011661 Egypt	1951 School School at Faris & other schools Faris 1011619 Egypt
1943 Villa Abdel Razek Villa Beni Mazur 1011656 Egypt	1949 Villa Hassanein Villa Cairo, Maadi 1011662 Egypt	1951 Villa Zaki Villa Cairo, Helwan 1011665 Egypt
1943 Villa Said El-Bakry Villa Cairo, Zamalek 1011657 Egypt	1950 Workshop Ceramic Factory Garagos 1011615 Egypt	1952 Tile Factory Tile Factory Jerusalem 1011666 Palestine
1944 House Hamdi Seif Al-Nasr House Fayum 1011613 Egypt	1950 Housing, Mosque Lulu'at Al Sahara Giza 1011616 Egypt	1954 House Baume-Marpent Rest House Kharga Oasis 1011667 Egypt

1955 House Alexandria Rest House Aswan 1011669 Egypt	1960 Housing Maarouf Mhd. Maarouf Housing Cairo, Khalifa Area 1011676 Egypt	1968 Social Centre Boulac Social Centre Cairo, Boulac 1011684 Egypt
1955 Villa Mohammed Mousa Villa Cairo, Mounira 1011670 Egypt	1960 Stable Touheimi Stables Location unknown 1011678 Egypt	1969 School Khoronfesh Nursery Location unknown 1011685 Egypt
1957 Housing Arab Refugee Housing Gaza 1011671 Palestine	1962 Institute High Institute for Popular Arts Aswan, Abou Riche 1011679 Egypt	1970 Housing, School Kharga Cooperative Project Kharga Oasis 1011622 Egypt
1958 Housing Iraq Housing Project Various locations 1011672 Iraq	1963 Villa Shri Zaheer Ahmed Villa Pangutta, Hyderabad 1011680 India	1970 Village New Baris Village Kharga Oasis 1011623 Egypt
1960 Apartment Shahira Mehrez Apartment Cairo 1011620 Egypt	1964 House Carr House Liopessi 1011681 Greece	1970 Laboratory Aboul-Eichre Laboratory Location unknown 1011686 Egypt
1960 Apartment Ali Bey Fathy Flat Location unknown 1011673 Egypt	1965 House Roshdi Said House Cairo, Maadi 1011682 Egypt	1970 House I.F.A.O. Dighouse Location unknown 1011688 Egypt
1960 House Ambassador of Nigeria Flat Niamey 1011674 Nigeria	1967 House Fuad Riad House Shabramant 1011621 Egypt	1970 Housing Jeddah Duplex Housing Jeddah 1011689 Saudi Arabia
1960 Restaurant Attiyya Restaurant Location unknown 1011675 Egypt		1970 Cultural Centre Luxor Cultural Centre Luxor 1011690 Egypt

1970 Touristic Village New Gourna Touristic Village Luxor 1011691 Egypt	1970 Mosque Tanta Mosque Tanta 1011699 Egypt	1974 Mosque Wehda Mosque and Islamic Centre Cairo, Abbassiya 1011705 Egypt
1970 House Priest's House Garagos 1011692 Egypt	1970 Mosque Tripoli Mosque Tripoli 1011700 Lebanon	1974 House V.I.P. House Tabuk 1011706 Saudi Arabia
1970 House Prince Sadruddin Aga Khan House Aswan 1011693 Egypt	1971 House Northern Shore Development Sidi Krier 1011624 Egypt	1975 Housing Darriya Housing Darriya 1011707 Saudi Arabia
1970 Villa Princess Shahnaz: Villa Luxor 1011694 Egypt	1971 House Murad Ghaleb House Cairo, Giza 1011701 Egypt	1976 Tourist Centre Al-Mashrabbiyya Tourist Centre Cairo 1011708 Egypt
1970 Villa Seddik Villa Giza 1011696 Egypt	1971 Mausoleum Nasser Mausoleum Cairo 1011702 Egypt	1977 Village Nile Festival Village Luxor 1011709 Egypt
1970 Wakala Souk EI-Silah Cairo, Souk EI-Silah 1011697 Egypt	1971 House Polk House Aspen, Colorado 1011703 U.S.A.	1978 House Akil Sami House Dashour 1011626 Egypt
1970 Mosque Sudan Mosque & Conference Centre Khartoum 1011698 Sudan	1973 House Nassief House Jeddah 1011625 Saudi Arabia	1978 House Petroleum Co. Rest House Ras EI-Gharb 1011710 Egypt
	1974 Shops Sohar Remodelling Sohar 1011704 Oman	

1978
Hotel
Rubat Hotel
Kharga Oasis
1011711
Egypt

1978
House
Sabbagh House
Kuwait City
1011712
Kuwait

1978
Village
Wadi Zarga Village
Tunis
1011713
Tunisia

1979
Touristic Village
Alpha Bianca Ribat
Alcoudia
1011714
Majorca

1980
House
Casaroni House
Shabramant
1011627
Egypt

1980
Village
Dar-Al-Islam Village
Abiquiu, New Mexico
1011628
U.S.A.

1980
House
Murad Greiss House
Shabramant
1011629
Egypt

1980
Village
Menia Village
Menia
1011716
Egypt

1980
Mosque
Roxberry Mosque
Boston, Massachusetts
1011717
U.S.A.

1981
House
Sadat Rest House
Gharf Hussein
1011630
Egypt

1981
House
Alaadin Mustapha House
Edfuon
1011718
Egypt

1981
House
Hatern Sadek House
Cairo, Giza
1011719
Egypt

1984
House
Andrioli House
Fayum, Tunes El-Gabal
1011720
Egypt

1986
House
Hasan Rashad House
Tanta
1011721
Egypt

1988
House
Khaleel Al-Talhooly House
Ghur Numreen
1011722
Jordan

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-

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.

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Hassan Fathy Lectures, Abiquiu, New Mexico, 1980. 1. Tape 4, Side A and B; 2. Tape 6, Side A and B; 3. Tape 7, Side A. Transcriptions by J. Palkovic, courtesy of the Aga Khan Award for Architecture.

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