



Publications of the
Office of the Hungarian
Cultural Counsellor in Cairo 2016–2017

Current Research of the
Hassan Fathy Survey Mission in Egypt

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Office of the Hungarian
Cultural Counsellor in Cairo

2016–2017

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Front cover:

Detail of the Market in New Baris (Photo: Zsolt Vasáros, 2015)

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Vivien Friderika Tibai, Zsolt Vasáros, Laura Veres



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Foreword

We proudly present the second edition of the yearbook of the Office of the Hungarian Cultural Counsellor in accordance with the Embassy of Hungary dedicated to the current research of the Hassan Fathy Survey Mission in Egypt. The recent edition is divided into two volumes: the first one presents the research efforts of 2016-2017, whilst the second one introduces the results of the years 2018-2019.

The Faculty of Architecture at the Budapest University of Technology and Economics, with the contribution of Hungarian architects and students of architecture, launched an expedition to Egypt from the spring of 2015 to make a complete documentation of Hassan Fathy's remaining architectural heritage. Hassan Fathy (1900-1989) was a role model for generations of architects, laying the foundations with his New Gurna experiment for community-based construction and design. His legacy drew attention not only to 20th century Islamic architecture and Hassan Fathy's special place in it correspondingly, but also highlighted his universal significance. Its relevance is further enhanced by the fact that Fathy's work is inevitable in various important fields such as close-to-nature, eco-friendly and sustainable architecture. He was an absolute pioneer of his era and even now, from the distance of 50-80 years, he provides with illuminating lessons.

During the early years, the objective of the Hassan Fathy Survey Mission, founded in 2015, was to document the rapidly deteriorating buildings designed by Fathy himself, primarily in Upper Egypt. A few years later, in 2018-2019 the Mission expanded its interest. Besides the new field activities in Alexandria, Fayyoun and around Cairo, the team initiated a collaboration with the Rare Books and Special Collections Library of the American University in Cairo. Owing to this prosperous cooperation, they now have access to an unparalleled archive of important original plans and notes, as well as pristine photos of the examined buildings. These important materials can be used to search for details and connections which, despite having a large corpus of publications, are virtually unknown.

Hassan Fathy's main scope of activity concerning the preservation of the historical architecture in combination with vernacular architecture is still as relevant as it was observed in the middle of the 20th century. Nowadays, the situation is more complex as we are facing demographic difficulties all around the world and the threat of climate change is escalating, jeopardizing the welfare of the entire planet. Understanding the issues of the Global South and supporting the region have become a global task of primary importance. Through the analysis of historical and contemporary examples, the main goal of the Hassan Fathy Survey Mission is to contribute to this project with its field activities and the dissemination of its results in academic circles. We do hope that with the publication of these two volumes we can support the achievement of their basic objectives.

Attila Szvétek-Palla
Cultural Counsellor

Acknowledgements

The work of the Hassan Fathy Survey Mission has been greatly helped by quite a few institutions. The Faculty of Architecture of the Budapest University of Technology and Economics and the Department of Industrial and Agricultural Building Design have provided the institutional background for the research. The excavations in Thebes of the Department of Egyptology of the ELTE have inspired the project, too. The late Prof. László Kákósy and the late Prof. Ernő Gaál had an essential contribution to this. Our research has been aided by several advices and the insight of Dr. Gábor Schreiber, the leader of one of the Hungarian Excavations. We need to mention Balázs Tihanyi, Eszter Tóth and Zsuzsanna Végh egyptologists, members of the Hungarian Mission who have helped us in many ways. The Library of the Oriental Institute of the University of Chicago has kindly accepted us for research, for which we are very much grateful. We are especially thankful to director Dr. W. Raymond Johnson and epigrapher artist Krisztián Vértes for their help and the background provided by the Institution. We are thankful for Elise MacArthur for the maps (Center for Ancient Middle Eastern Landscapes, Oriental Institute, University of Chicago).

We are indebted to The American University in Cairo and the Rare Books and Special Collections Library, we are especially grateful for Mr. Philip Croom for entering to an official cooperation with us and for Ms. Balsam Abdel Rahman and Ms. Ola Seif for their tireless help in navigating us through the archives and in helping us find a number of houses of interest.

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We thank Ms. Christen Jouzef Tanous for kindly facilitating the survey work of the mission in the Stoppelaère House. We also express our sincere thanks to Dr. Mamdouh Eldamaty, Minister of Antiquities for the support to realise the 2016 season. A debt of gratitude is owed to Mr. Hany Abu el-Azm, Director of the Department of Foreign Missions' Affairs, Mr. Sultan M. Eid, Director of Antiquities of Upper Egypt, Mr. Mustafa el-Wazery, Director of Antiquities of Luxor, Dr. Talaat Abd el-Aziz, Director of Antiquities on the West Bank of Luxor, Mr. Mohamed Abd el-Nasser, Director of the North Area, Luxor, West Bank and Mr. Adel Ervan, Director of the Foreign Mission's Office, Luxor, West Bank.

Last, but not least we owe our sincere gratitude to the residents of Old Gourna, New Gourna - especially to Mr. Abd el Rady and to the current residents of the former Abd el-Rassoul house, as well as the families living in the 'Omda's House' -, who welcomed us into their homes and made the core of our research possible.

The Budapest University of Technology and Economics offered us support and encouragement by Dr. János Dobai, Head of Department 2009-2017, Dr. Csaba Molnár, Dean of the Faculty of Architecture 2014-2018; Prof. György Alföldi, Dean of the Faculty of Architecture 2018-; and Prof. János Józsa, Rector. We thank the tutors and colleagues of BUTE, who participated in consulting the students' design and research projects. We are grateful for the support of the '*a (Modern) (Ipari) Építészetért Alapítvány*' (Foundation for the Modern Industrial Architecture), Budapest, which helped the work on site in the first few years (founder and member János Dobai; chairman Dr. Barnabás Winkler and member Péter Hajmási)

We are thankful to Ms. Edit Kaszás Nándori and to Mr. Ákos Vasáros, who has helped immensely in managing the administrative background of our research.

We are especially grateful to the members of the Narmer Architecture Studio, who have provided a stable professional and infrastructural background in processing the collected data throughout the years, the contribution of Gábor Nagy and Klára Lovas are especially invaluable. We are thankful for the work of Glória Garaczi, who pieced this booklet together with great taste and patience.

Our on-site research would not have been possible without the constant help of Mr. Gamal Ahmed Tawfiq, whom we could rely on in all situations, from making contact with authorities and residents to managing our excursions. We have to thank the hospitality of Hotel Fayrouz, where we spent a considerable time during our fieldwork; especially to Susan Alexander and Khaled Senussi.

Last, but not least we thank to the participants of the fieldwork. In season 2015: to Bernadett Csendes, Nóra Csobolya, Dóra Dávid, Rita Dolmány, Zsófia Füsi, Áron Farkas Lévy, Márton Lőw, Bernadett Miklós, Eszter Nagy, Diána Alexandra Nusszer, Szilvia Odry, Gergely Sági, Áron Sasvári, Péter Róbert Szabó and Zsolt Vasáros. In season 2016: Stefánia Balázsik, Emőke Erika Bandur-Juhász, Dóra Dávid, Kata Kovács, Klára Lovas, Gábor Nagy, Eszter Nagy, Diána Alexandra Nusszer, Júlia Pokol, Gergely Sági, Áron Sasvári, Imre Ferenc Szűcs, Vivien Friderika Tibai and Zsolt Vasáros. In season 2017: Kinga Gacsályi, Dóra Kalász, Enikő Kosztolányi, Ticiána Nagy, Augusztina Vörös and Nóra Andrásy, Dóra Dávid, Kata Kovács, Anna Lukács, Lili Maklári, Bernadett Miklós, Anikó Somlai, Vivien Friderika Tibai, Laura Veres and Zsolt Vasáros.

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The Authors



*View of Deir el-Bahari, with the remains of Old Gournu and the Necropolis of the Noblemen.
Photo: B. Tihanyi, 2012.*



Houses in Luxor West Bank. Photo: Zs. Vasáros, 2012.



Houses in Old Gourna, close to the Ramesseum. Photo: Zs. Vasáros, 2004.



Typical landscape in Luxor West Bank. Photo: Zs. Vasáros, 2011.



Prayer hall of the Mosque in New Gourna. Photo: Zs. Vasáros, 2015.





The Stoppelaëre House. Photo: Zs. Vasáros, 2016.



A courtyard of the Stoppelaëre House. Photo: Zs. Vasáros, 2016.



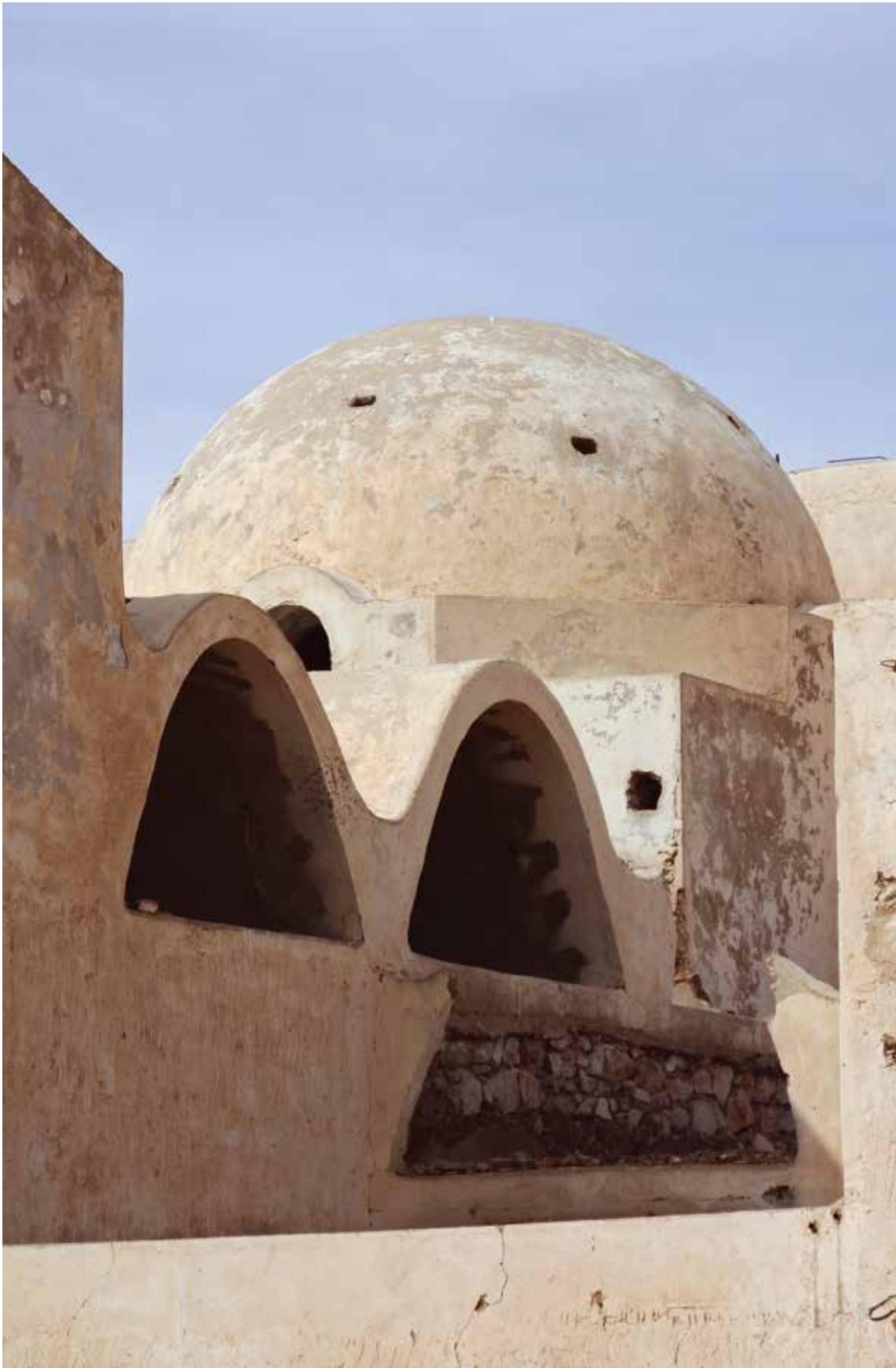
The view of Mahamid from the minaret of the Mosque. Photo: F. Tibai, 2017.



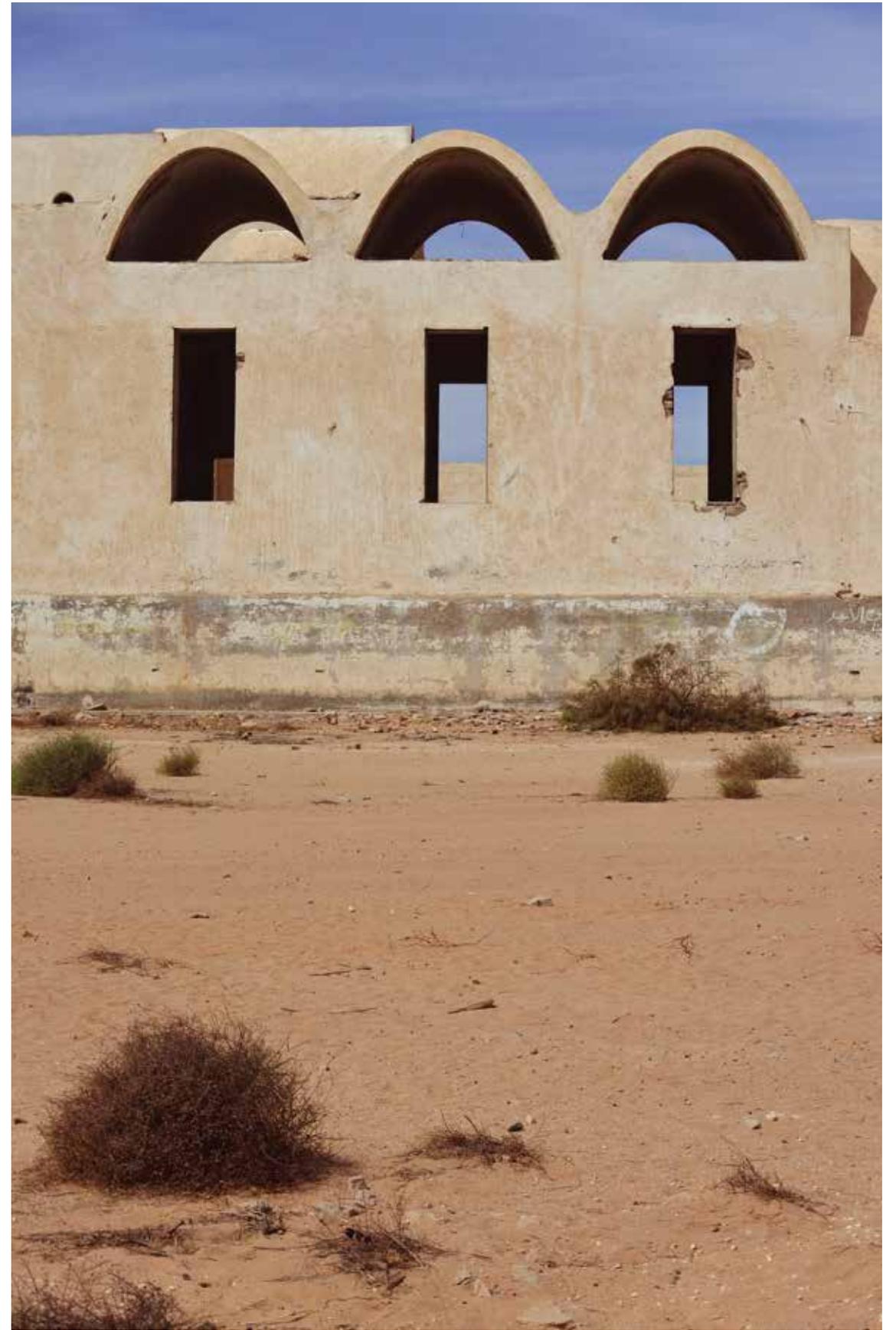
The ship 'IMHOTEP' in Wadi Sebu, close to the Nasser Lake. Photo: F. Tibai, 2017.



Ventilation shaft in the Sadat Rest House, Gerf Hussein. Photo: Zs. Vasáros, 2017.



Domes and vaults on the Sadat Rest House. Photo: Zs. Vasáros, 2017.



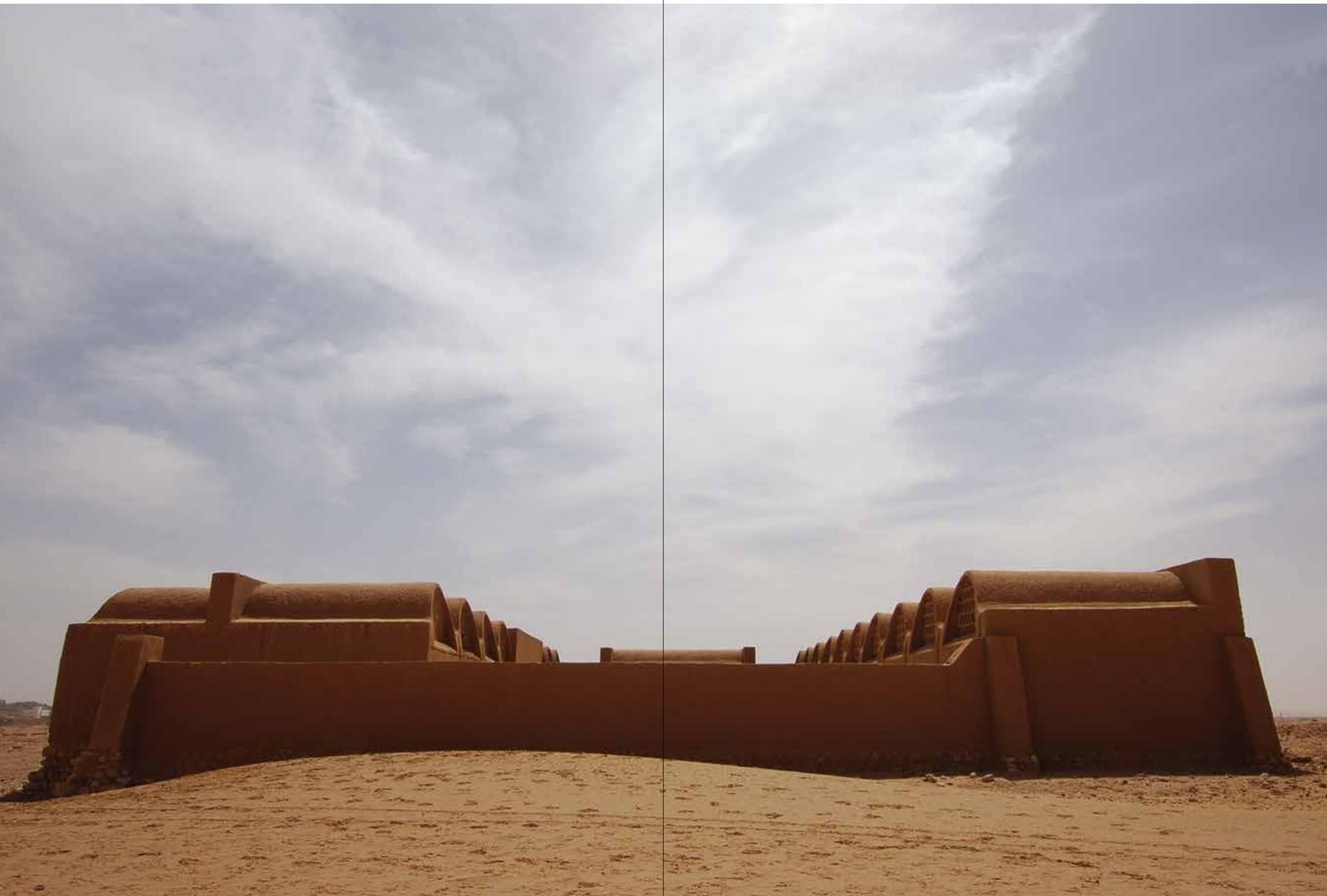
Façade detail of the Sadat Rest House. Photo: Zs. Vasáros, 2017.



Façade detail of the Sadat Rest House. Photo: L. Veres, 2017.



Façade of the Village Workshop in New Baris. Photo: Zs. Vasáros, 2015.



Façade of the Village Workshop in New Baris. Photo: Zs. Vasáros, 2015.



The existing New Baris, Kharga. Photo: Zs. Vasáros, 2015.



Façades of rural houses near Aswan. Photo: Zs. Vasáros, 2018.



Façades of rural houses near Aswan. Photo: Zs. Vasáros, 2018.



Rural houses in Gharb al-Aswan. Photo: Zs. Vasáros, 2017.



Outbuildings with Nubian vaults in Gharb al-Aswan. Photo: Zs. Vasáros, 2017.



Traditional houses in Gharb al-Aswan. Photo: Zs. Vasáros, 2017.



A cupola of a mausoleum in the Fatimid Cemetery of Aswan. Photo: Zs. Vasáros, 2017.



Sunset by the Sadat Rest House in Gerf Hussein. Photo: F. Tibai, 2017.

THE BEGINNING

The Hassan Fathy Survey Mission: 2015–2017

Zsolt Vasáros



Sites in Egypt visited by the Hassan Fathy Survey Mission in 2015-2017.

Hassan Fathy (1900-1989) is a role model for generations in architectural education. Survey works on twentieth-century architecture usually discuss his work; his famous New Gurna experiment laid the foundations for community-based construction and design in the mid-1940s. Nearly one thousand monographs, articles, publications, and dissertations have been published on the Egyptian architect. His prominence and legacy draws attention not only to twentieth-century Islamic architecture and Hassan Fathy's special place in it, but also highlights his universal significance.¹

Born in Alexandria, Fathy moved to Cairo when he was eight. He graduated as an architect in Cairo in 1925. He was cosmopolitan and multi-lingual; he composed music, wrote dramas and painted. At the beginning of his career, he used historical forms and style, later on his work was clearly modernist. His first commission was the design of an elementary school in Talkha,² so he made a study trip in 1926, and he became interested in the countryside and its architecture. Between 1930 and 1946, he served as an instructor at the École des Beaux Arts in Cairo. By the end of the 1930s, he had turned to vernacular architecture through specific prototype experiments, and he was almost obsessed with the use of ancient materials and blending traditional forms with new features. In 1941, he organized a field trip to Aswan with his students to discover the potentials of Nubian architectural structures and forms, focusing primarily on arches and structural simplicity.³ After several smaller successful projects, he was able to pursue these ideas in the design of the New Gurna Model Village. The Belgian restorer Alexander Stoppelaëre's house was built at that time near the Valley of the Kings in Luxor on the west coast; similarly, in Garagous a Pottery and Ceramics Factory commissioned by Jesuit monks, a Cultural and Health Centre, and a School were built based on Hassan Fathy's design. The design of the latter project was abandoned, and most of the buildings were finished without Fathy's assistance after the plans were modified. Other schools designed by Fathy were built at that time. The 10-classroom elementary school in Fares is still there, it is a progressive professional work with numerous draft versions;⁴ the one in Edfu has already been demolished.⁵

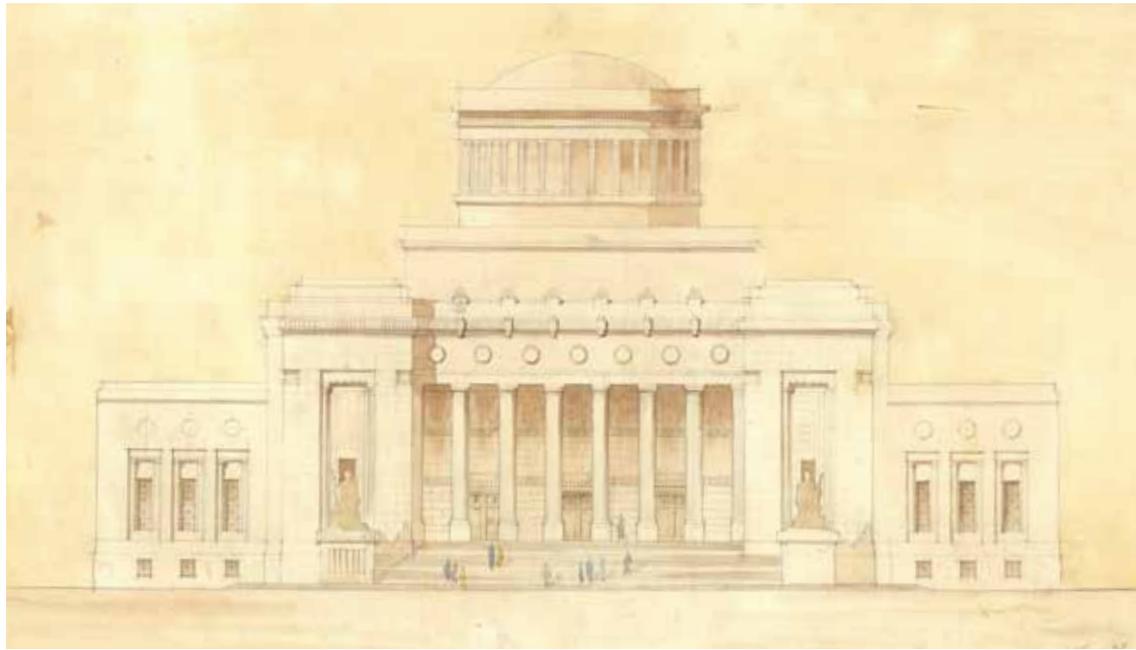
¹ About Fathy's oeuvre see in general DAMLUJI – BERTINI 2018; EL-WAKIL 2018; STEELE 1997; STEELE 1989; STEELE 1988; RICHARDS – SERAGELDIN – RASTDORFER 1985; SERAGELDIN 2007; HAMID 2010; also VASÁROS 2019.

² See about the Talkha project (1928) EL-WAKIL 2018a, 46-49.

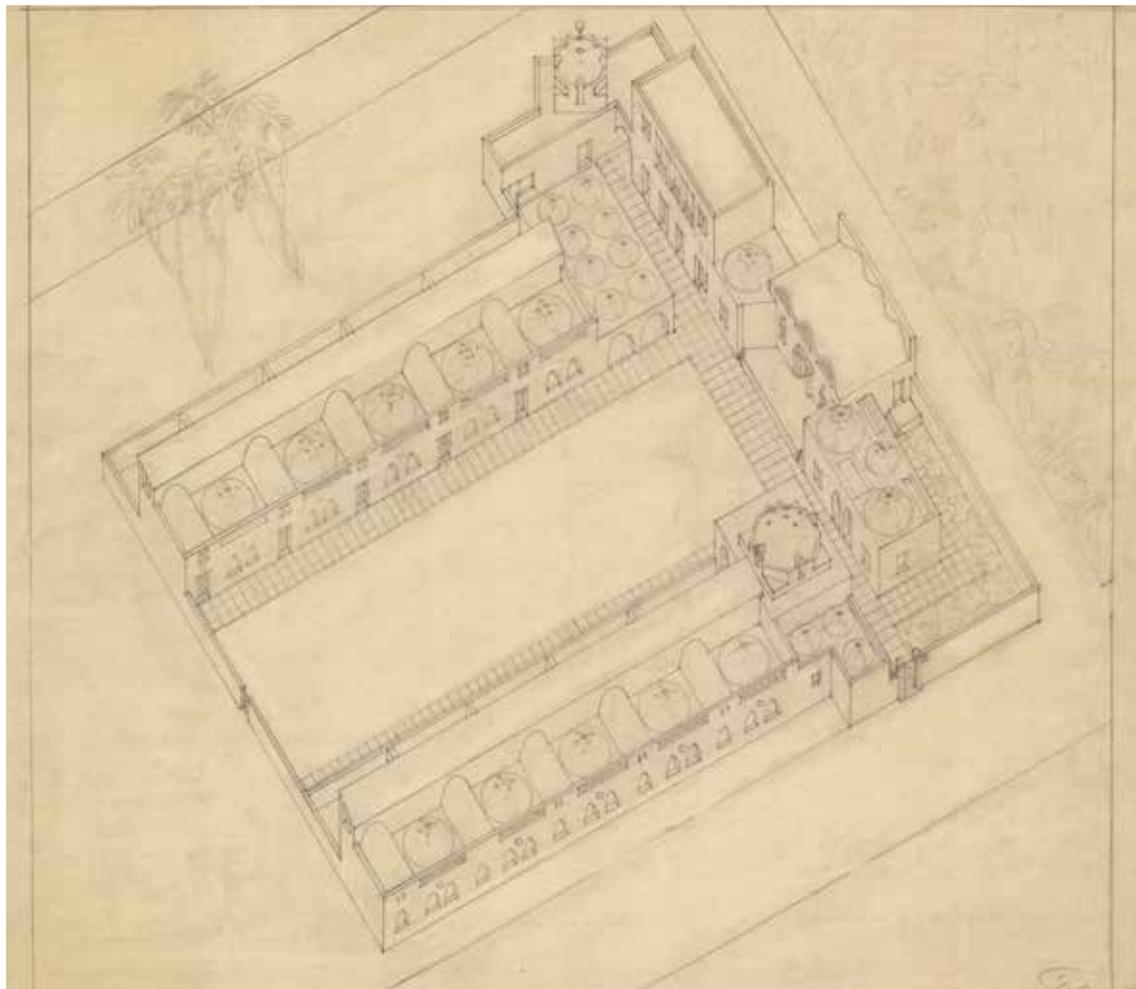
³ See BERTINI 2018b, 64.

⁴ See VASÁROS 2020, 58-61; DAMLUJI 2018, 41-43; also STEELE 1988, 84-85.

⁵ See STEELE 1988, 84-85.

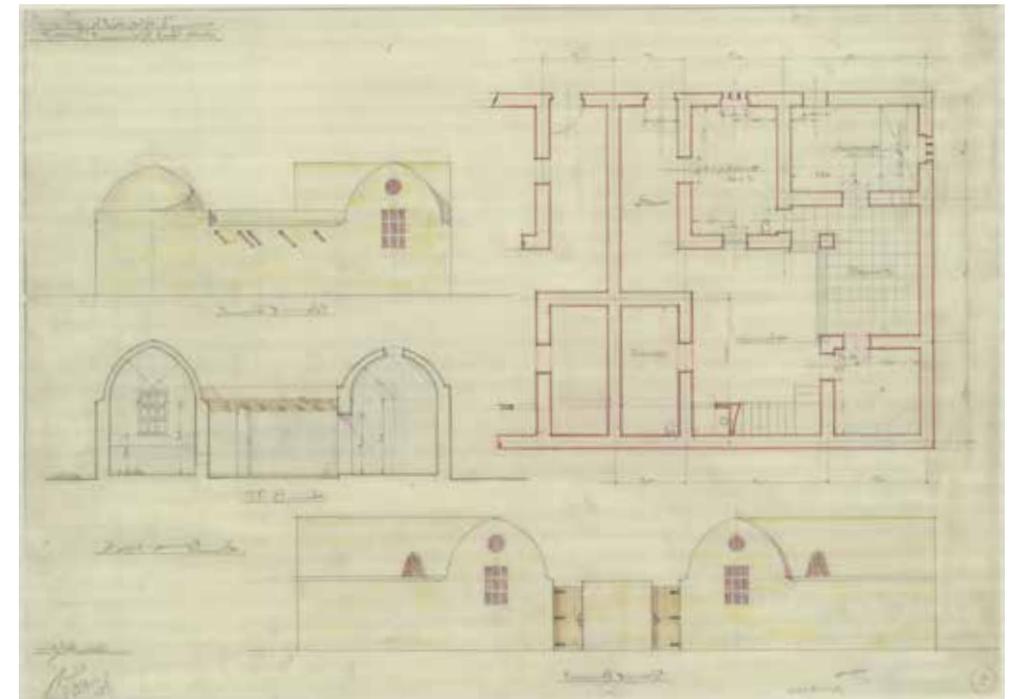


Original plan of the Primary School in Talkha (1928). Source: RBSCL, AUC



Axonometric view of the School in Fares (1956). Source: RBSCL, AUC

In 1953, Fathy returned to Cairo, where in 1954 he became head of the Department of Architecture of the Faculty of Arts. Mainly due to cumbersome bureaucracy, he left Egypt in 1957 to work in Athens, and returned in 1961.⁶ He moved into the Darb el Labbanah apartment near the Citadel and the Mosque-Madrassa Sultan Hassan and the Al-Rifa'i Mosque and lived there until his death in 1989. His work raises many questions in many respects. After his early professional phase, he was experimenting with vernacular architecture, which brought him both success and failure; this strand is often described as 'Architecture for the Poor',⁷ which was also the title of his book on New Gournia published in several editions.⁸ He achieved innumerable successes in the last third of his life and career, but during this period, he mainly took commissions from wealthy clients to design villas and embassies; later his earlier vernacular architectural work won international appreciation. In 1980, he received the Aga Khan Presidential Award for Architecture, followed by the UIA⁹ Gold Medal in 1984. An exhibition of Fathy's lifework opened at the Pompidou Centre in Paris in 1981, and a year later, curator Jean Dethier published the first publication summarizing his work in English.¹⁰ In the same year, the construction of his last, only partially realised project outside Egypt, organised by a non-profit educational foundation in New Mexico (USA), begins; in this, he returns to the 'purity' of the initial vernacular experiments, representing the legitimacy of design based on local traditions blended with Egyptian architectural patterns.



Original plans of the Abu Jabal Ragab farm (1941). Source: RBSCL, AUC

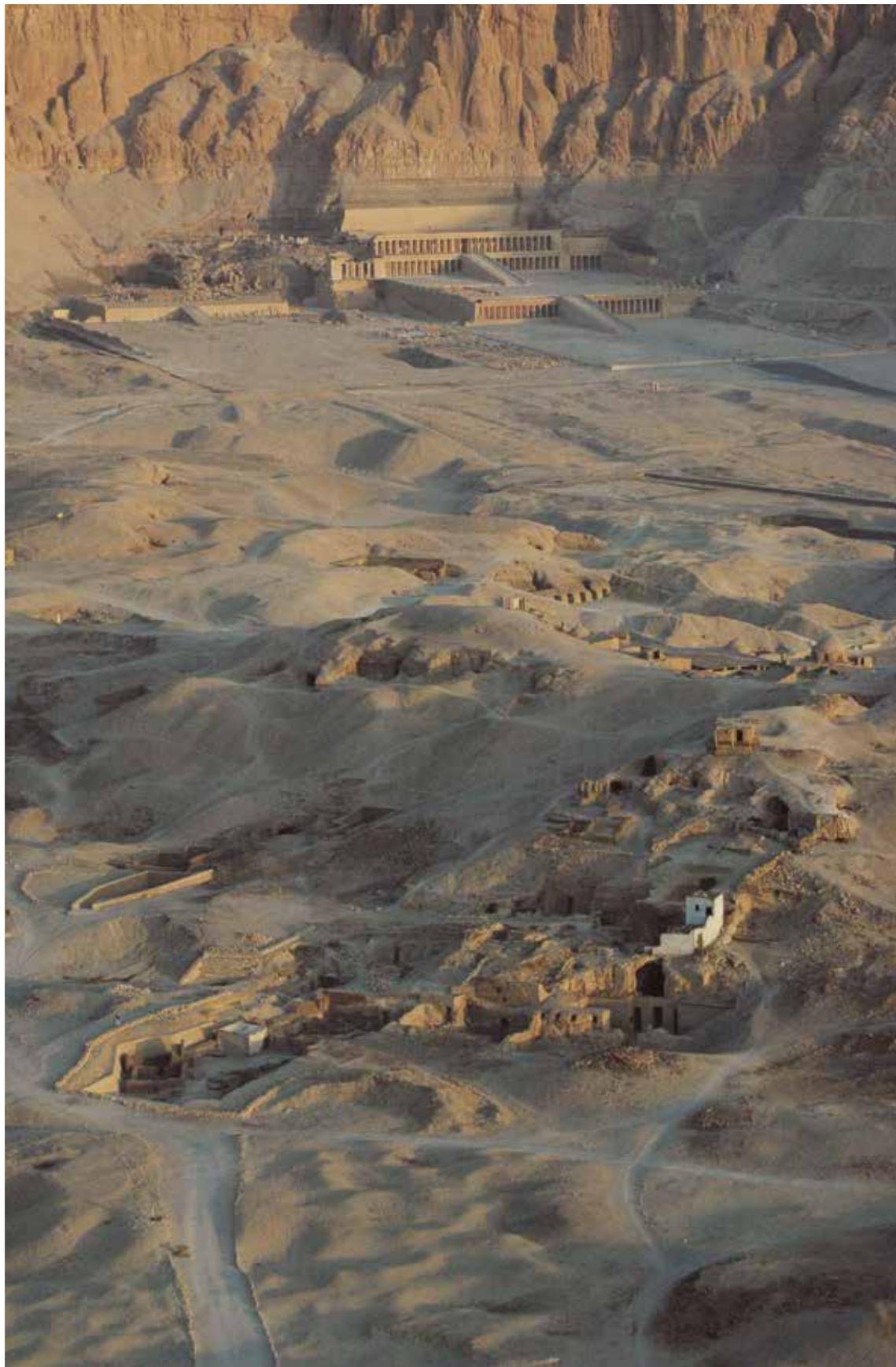
⁶ See in general STEELE 1997, 109-123; BERTINI 2018c, 102-107; ABELE 2018, 272-287; also BAUDOUÏ 2018, 290-311.

⁷ See FATHY 1973.

⁸ The original edition is published under the title of „Gournia. A tale of two villages“, see FATHY 1969.

⁹ Union International des Architectes / International Union of Architects

¹⁰ See DETHIER 1982.



Deir el-Bahari and the excavation area of two Hungarian Archaeological Missions in the front. The area to the left directed by Dr. G. Schreiber, the area to the right by Dr. Z. I. Fábíán. Photo: Zs. Vasáros, 2012.

THE MISSION'S HISTORY ¹¹

The Faculty of Architecture at the Budapest University of Technology and Economics, with the help of Hungarian architects and students of architecture, launched an expedition to Egypt in the spring of 2015 to document Hassan Fathy's remaining architectural heritage. Upper Egypt (Luxor, Garagous and Fares) is predominantly emblematic of his early work, while the distorted New Baris settlement is a sad memento of monumental mudbrick architecture, and Anwar Sadat's presidential holiday house in Gerf Hussein is a significant example of Fathy's late work.

The scientific aim of the research project, was partly based on specific scholarly goals and partly on personal interest. By 2014, I had been working on various archaeological projects in Egypt for almost 20 years. I knew Hassan Fathy's name and work related to Luxor, more specifically to Old Gourná and New Gourná, from my university years. I read Charles Jencks's monograph, *Architecture Today*,¹² which discussed New Gourná and which was considered a fresh and authoritative part of the body of secondary literature in the mid-1990s.¹³ Since 1996 I have taken part in study trips and in the Hungarian excavations at the Cemetery of Nobles of Luxor West Bank almost every year;¹⁴ essentially, they were carried out among Old Gourná's houses; in a village which was to be evacuated as early as the mid-1940s and which became Fathy's first serious vernacular architectural project after the promising prototype experiments.¹⁵ The history, the successes and failures of the New Gourná project are well-known in our field. Old Gourná was not demolished until 2006, which then fulfilled the decade-long expectation of archaeologists and researchers working there, but at the same time the sight of the ruins and the lack of people shocked everybody. The first time I visited New Gourná was in 2004; before that I only saw it from the car: the unique minaret façade of the Mosque and the vaults of the former stables of the Cattle Market. At that time, a significant portion of the residential buildings was intact, defining the street view from the main road.

There were no major demolitions and reconstructions for a while, and then something changed around 2010. In 2010-011 UNESCO also expressed its concerns about the condition of the village, and several conferences were organized to save New Gourná. Fortunately, UNESCO and the World Monuments Fund produced several reports at that time, covering the basic facts, e.g. existing buildings, their condition and environmental data were recorded.¹⁶ The world organization made a symbolic act to show their presence, too: they restored one of the domes of the Khan portico which had collapsed by that time - although it was not reconstructed according to its original geometry. By 2014, the pace

¹¹ The field research of the Hassan Fathy Survey Mission in Egypt of the Budapest University of Technology and Economics, Faculty of Architecture was possible due to the contribution of sponsors: the Narmer Architecture Studio Budapest and the Department of Industrial and Agricultural Building Design; also '*a (Modern) (Pari) Építészeti Alapítvány*' (Foundation for the Modern Industrial Architecture), Budapest, the ÚNKP-18-4 New National Excellence Program of the Ministry of Human Capacities and the ÚNKP-19-4 New National Excellence Program of the Ministry of Innovation and Technology and by the János Bolyai Scholarship of the Hungarian Academy of Sciences 2018-2021.

¹² See JENCKS 1988, 142-143.

¹³ See further contemporary interpretations of Fathy's work ENNOTT 2004, 728; HABRAKEN 2000, 265-266; also MILES 2006, 116-139.

¹⁴ About the Hungarian Missions in Thebes see in general: BÁCS - FÁBIÁN - SCHREIBER - TÖRÖK 2009.

¹⁵ See in general about Old Gourná VAN DER SPEK 2011; SIMPSON 2003; EIGNER 1984.

¹⁶ See UNESCO 2011; WORLD MONUMENTS FUND 2011; also EL-WAKIL - RADWAN 2008.



Satellite picture of Luxor West Bank, the area Old Gournah before the complete removal of the village in 2006. Source: Google Earth



Satellite picture of Luxor West Bank, the area of Old Gournah after the complete removal of the village in 2009. Source: Google Earth

of change accelerated, with many homes in decent condition being demolished, rebuilt, and the Khan and Theatre deteriorated further. Then, research revealed that much of Fathy's plans were preserved and became accessible in the RBSCL AUC¹⁷ archive, but there were often significant differences between the completed buildings and the plans. One explanation for this may have been Fathy's active presence during construction, but in any case, it was clear that the reality was often different from the plans. Thus, at the outset of the project, we had two motives beyond being interested in the topic: one was a time pressure on documentation because of the significant and fast deterioration, and the other was a great potential for research in the subject. Fathy was one of the most important influencer architect of Islamic architecture in the 20th century, a role model for generations, and is still an important reference today. These facts moved the planned research, or rather field research, immediately towards the university setting, not only because of the potential participants of the research, but also because of the potential circulation of the findings in academia. Looking at the rich plans and photo archives of the AUC Archives and the extensive literature, it became obvious that there are hardly any up-to-date surveys, documentation, and imagery apart from the frequently published photos. At the moment, there is no available detailed architectural documentation for any of the completed buildings, and one of the issues to be clarified in the future is that which plans were used when the houses were built, or what was the actual construction based on. It is also a question whether the level of elaboration affected the spatial quality of the completed buildings. All of this also suggested that Hassan Fathy's buildings would disappear without ever being fully documented, so even though the plans of varying quality of almost all of his houses are available, considering the differences and undocumented details of the buildings, his work would disappear without a trace. This was the main drive at the early stages of the project: given the speed of deterioration, we aimed for the most complete documentation possible to make further research possible. We clearly saw this as a quest to salvage things of value. This is how the mission began, which from the outset was sensitive to other observable phenomena, in particular contemporary architecture and its dimensions which are often incomprehensible from a European perspective. Thus, in addition to documentation, we studied the current environment of buildings, their changes, changes in social conditions, and their effects on the built environment. The contrasts and tensions that can be felt in the relationship between the landscape and the people seemed interesting and difficult for us to understand, and it still seems to be. Field studies, historical and contemporary architecture, and the study of relevant literature have shown an intention beyond basic documentation objectives, which we exploited in the early years of the project.

2015 – GETTING STARTED: SUCCESSES AND DIFFICULTIES

In January 2015, I travelled to the site to prepare the mission. Originally, the plan was to document the public buildings of New Gournia first, then the residential buildings.¹⁸

¹⁷ Rare Books and Special Collections Library, The American University in Cairo

¹⁸ At the same time I made a short visit to the Kharga Oasis in New Baris to prepare the site survey.

After the preparations, we finally started our first fieldwork season in March 2015.¹⁹ An important precursor to the on-site work was a workshop in Budapest, which was attended by the students and professors of the Higher Technological Institute and the students of architecture of BUTE;²⁰ a significant number of students joined our fieldwork in March in Luxor, where we continued the workshop. In Budapest, mainly Hungarian students prepared and discussed a topic from Fathy's oeuvre, while in Luxor we included Egyptian students in the practical part of the documentation and development of several design concepts regarding future strategies for New Gournia.²¹



Aerial image of New Gournia. Photo: Zs. Vasáros, 2011.

The construction of New Gournia (1945/46-) made Fathy world-famous, and the Model Village, even though just partially realised, is considered the archetype of participatory design and construction.²² However, the fact is that only a quarter of the plans could be realised; errors and mistakes made during the design and construction phase resulted in the construction process being finally shut down. A separate monograph could be written about the history of the construction and origins of New Gournia, but in a nutshell, the impetus for design was highly profane. For a century and a half, those living on Luxor

¹⁹ The participants of the Mission in 2015 were: Dr. Zsolt Vasáros (Architect, Field Director), Mr. Áron Sasvári (Architect, Deputy Field Director), Ms. Diána Alexandra Nusszer (Architect), Ms. Bernadett Csendes, Ms. Nóra Csobolya, Ms. Dóra Dávid, Ms. Rita Dolmány, Ms. Zsófia Fűsi, Mr. Áron Farkas Lévay, Mr. Márton Löw, Ms. Bernadett Miklós, Ms. Eszter Nagy, Ms. Szilvia Odry, Mr. Péter Róbert Szabó (Students of Architecture).

²⁰ Participants of the workshop in Budapest from the HTI: Muhammad Salah Eldaidamony (Supervisor), Omnia Monir Ebraheem Ahmed, Asmaa Mohamed Mohamed Sharawy, Ehsan Moustafa Kamal Ali, Ghada Mohamed Amin (Teaching Assistants), and Fatma Moussa Ali Mohamed (Student of Architecture).

²¹ Participants of the workshop in Luxor from the HTI: Muhammad Salah Eldaidamony (Supervisor), Caroline Shoukry Hakim, Youstina Bert Albier, Asmaa Elsaid Mohamed, Joseph Melad Naguib, Jihad Jalal Seif, Nuha Amer Said, Naglaa Ibrahim Shehata, Mostafa Mohamed Elhusainy, Ahmed Abu Bakr Batea, Mary Monir Ramzy, Tarek Mohamed Mostafa, Virena Raafat Ramzy, Mariam Wagih Kaml, Marina Mahrous Ibrahim, Peter Sobhy Khalaf, Antonio Nashaat Georgeos, Mariam Hassan Elsaid, Mahmoud Basiouny Ali Hawas, Monica Mamdouh Aziz, Mostafa Mansour Ali, Mahmoud Abu Bakr Ali, Doaa Gamal Abdelaziz, Monica Nabil Girges, Abdallah Mostafa Mohamed (Students of Architecture).

²² See in general FATHY 1973; STEELE 1988, 63-75; BERTINI 2018a, 194-211; DAMLUJI 2018, 219; ZACHER 2020, 72-77; KAKNICS 2020, 78-83; BALOG 2020, 84-89; also DÁVID 2020a, 102-109.

West Bank settled on the hills of what was once the Necropolis of the Nobles, where they basically were looting thousands of ancient tombs.²³ The authorities wanted to stop all this in the 1940s and asked Fathy to design a separate village for families still clustered in tribal structures.²⁴ Everything was ready for the architect to fulfil his dreams: the Nubian experiences, his admiration for mudbrick architecture,²⁵ and the rich historical layers prompted intense work, and numerous surviving plans, records and the first book on the construction of New Gournā show his determination. The publications present the project as a model, while also highlighting perceived and real errors. The exact causes of failure were yet to be clarified. Nowadays, those living in New Gournā have almost completely 'overwritten', that is, demolished and rebuilt much of the settlement. Only a fraction of the public buildings (Theatre, Mosque, Khan, Cattle Market) survived, while others (the Boys' School, Girls' School, Art Centre, Exhibition Hall) disappeared completely.²⁶



Fathy's Field House in New Gournā. Photo: Zs. Vasáros, 2004 (above) and 2017 (below).

23 See in general about Old Gournā VAN DER SPEK 2011; SIMPSON 2003; EIGNER 1984.

24 See in general about Old Gournā VAN DER SPEK 2011; SIMPSON 2003; also BERTINI 2018a, 195.

25 About mudbrick constructions see FATHY (with DAMLUJJ) 2018, 316-329.

26 See UNESCO 2011; WORLD MONUMENTS FUND 2011; also EL-WAKIL – RADWAN 2008.

In New Gournā, we specially focused this season on public buildings, and Fathy's own so-called 'Field House'.²⁷ The latter was necessary because the house was still in good condition during the preliminary site visit in January, although it showed numerous cracks and structural damage, which deteriorated by March. The doors and windows were removed, the upstairs brick parapet collapsed and the domed space partially disintegrated. The importance of Fathy's own house in his first major project may not need to be emphasized. Partly because of this, and partly because of the lack of relevant design documentation in the AUC Archives, we endeavoured to produce the most complete documentation of this vanishing house.



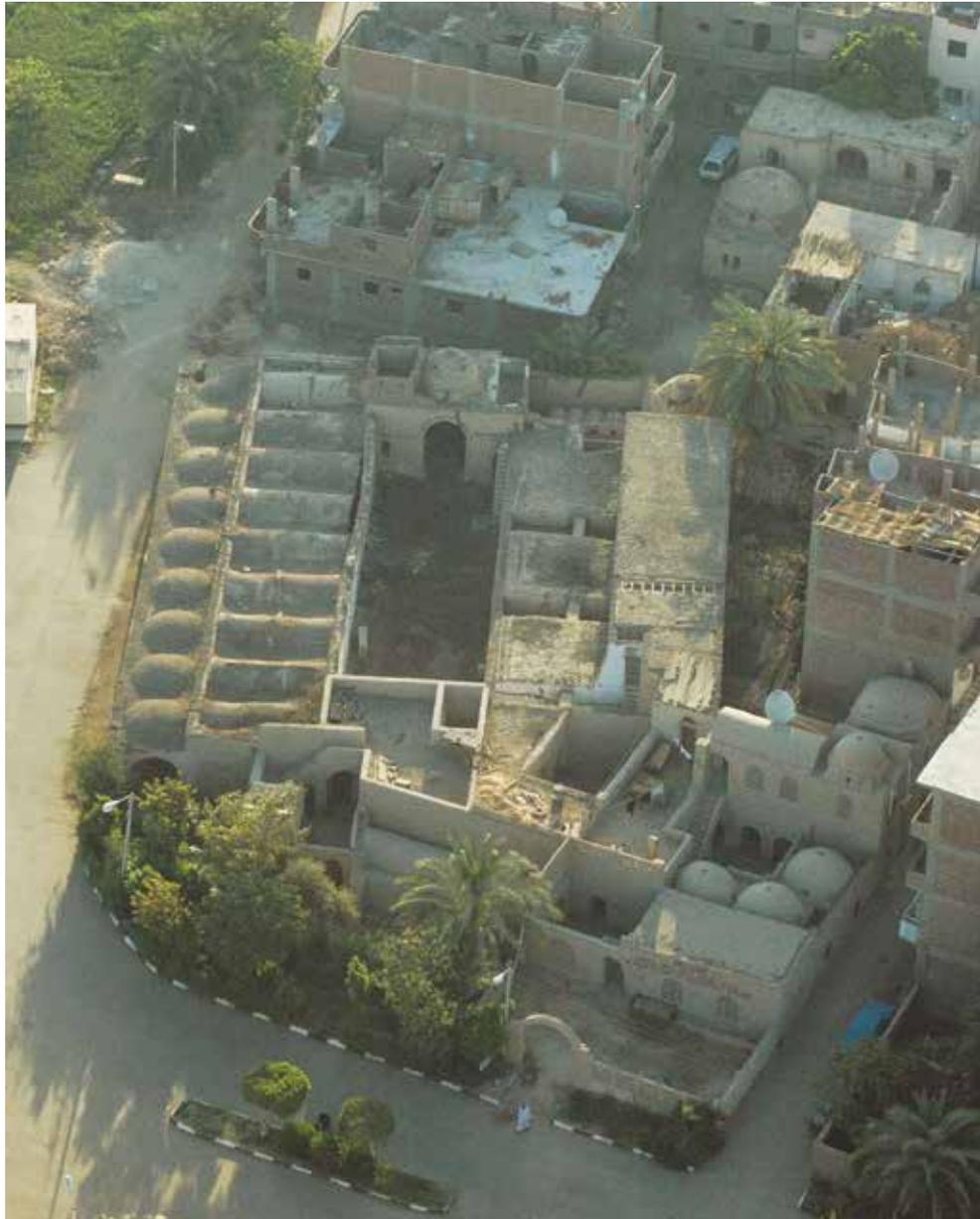
The Theatre in New Gournā. Photo: Zs. Vasáros, 2011.

The Mosque was in operation at the time of our survey, and apparently parts of it used for prayer were maintained. The vaults of the former school and library sections of the Mosque, once open to the courtyard, had been severely damaged, and this part had already been detached, presumably in the 1990s. The so-called female prayer space was also separated, and the pillar collapsed in one of the courtyards in the northeast. The original entrance near the ablution area is no longer in use and the door below the minaret has been replaced. We did not see any other significant changes during the survey, but the plans kept in the RBSC AUC raise many questions. Apart from some façade sketches and small-scale floor plans on the masterplans, there is no other design documentation for Fathy's work which is probably referred to the most frequently in the oeuvre.²⁸ Here again, the preparation of complete documentation was a priority.

27 See STEELE 1988, 72-73; also STEELE 1997, 64-65.

28 See in general about the Mosque STEELE 1988, 68-69; STEELE 1997, 68-77; also SÁGI in this volume.

The Theatre is one of Fathy's the finest but already questionable creations in New Gourna.²⁹ The theatre as a function was rather foreign in the rural context at that time, but it was able to accommodate community events, as evidenced by contemporary documentation. Unfortunately, the Theatre was in such a bad condition by the 1970s that it had to be renovated, under Fathy's supervision. The traces of this renovation are clearly discernible when compared to the numerous archival photographs, so it is possible to make a reconstructive plan. The structures around the stage suffered the most damage, there were significant distortions in the geometry of the walls, and the structure became life threatening, which unfortunately also deforms the main façade.



The Khan and Fathy's own Field House in New Gourna. Photo: Zs. Vasáros, 2011.

²⁹ See STEELE 1988, 68, 70; STEELE 1997, 78-81; also BERTINI 2018a, 206-209.

Our survey also revealed the poor condition of the Khan.³⁰ On the one hand, on the opposite side of the UNESCO-restored corner dome, the other corner dome began to collapse, and the archway tilted toward the square, which was threatening the stability of the entire building. The barrier wall of the northern tract of the inner courtyard almost fully collapsed, so the series of Nubian vaults can be seen like cross sections. However, it was also noticeable that this wall section and the arches were not connected, i.e. they were not linked structurally, which could have contributed to the damage. Given that the building had not been used for decades, deterioration seemed almost irreversible, which is why we considered documentation indispensable.

The interesting Cattle Market is fragmented today.³¹ The former marketplace, the land is still there, but its buildings have hardly been preserved. The northern series of vaults is essentially still there, but hardly any remains of the western gate, and some rooms in the eastern part have been preserved in a carpentry shop. Restoration of the once generous composition is no longer possible due to the diverse ownership of the land, but it would be possible to make a theoretical reconstruction based on the preserved and documented spatial fragments.



Archive image of the Cattle Market in New Gourna. Source: RBSC, AUC.

Mr. Ahmed Abd el-Rady, who maintains the Hassan Fathy Museum in what was once the Khan's building, has been particularly helpful in surveying all four of the remaining public buildings and managing the site work in a special way, while preserving the designer's memory. Mr. Abd el-Rady called our attention to a few remaining, partly or wholly original dwellings, which we surveyed in the coming seasons. He also showed new or rebuilt dwellings which followed Fathy's former architectural style and heritage. Especially in Luxor West Bank, there is a striking renaissance of domed vaulting architecture, which often uses, in a highly eclectic way, the sets of forms that Fathy became known for, although, as Fathy emphasized, they are rooted in vernacular traditions. The intense work in New Gourna, with the help of Mr. Abd el-Rady and Mr. Gamal Ahmed Tawfiq, outlined the tasks for the following seasons: to somehow get into the residential buildings, to get the residents there to trust us and to be able to make documentations of their houses. We also considered this important because after the events of 2011, construction activities intensified almost everywhere in Egypt, especially in the more prosperous regions. The transformation of agricultural areas near Cairo into informal neighbourhoods is well known, several publications have covered the subject.³²

³⁰ About the Khan see STEELE 1988, 68, 70-71; STEELE 1997, 62-63, 67; also BIELIK 2020, 90-95.

³¹ See BERTINI 2018a, 211; ÁCS 2020, 96-101.

³² See in general KIPPER - FISCHER 2009; SINGERMAN 2009; ABABSA - DUPRET - DENIS 2012; SIMS 2014; ANGÉLIL - MALTERRE-BARTHES 2016.; SINGERMAN 2009; also ELSHAHED 2020.



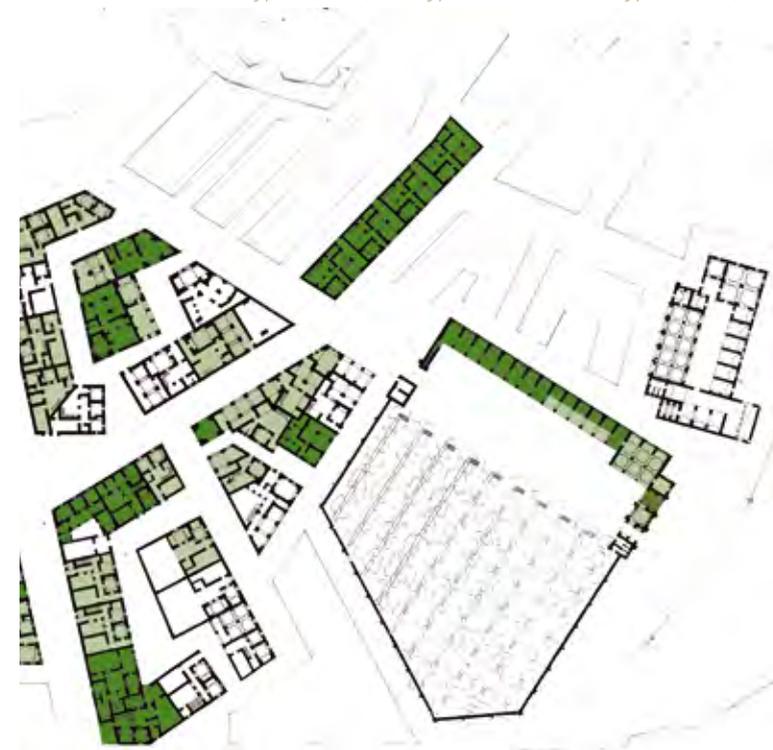
The buildings of New Gourna documented by the Hassan Fathy Survey Mission between 2015-2019, which still had significant original or reconstructed/rebuilt parts of the original structures.

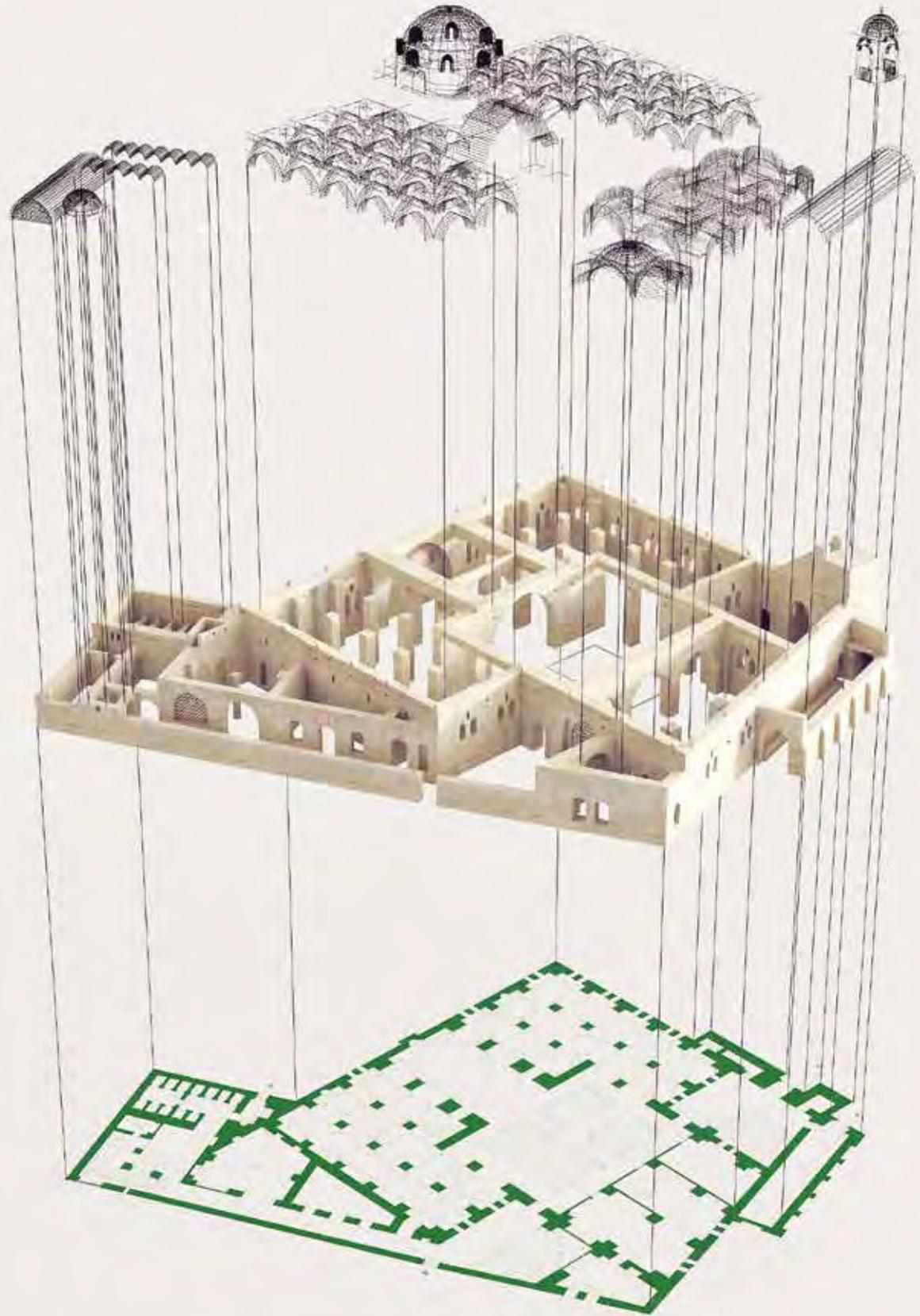
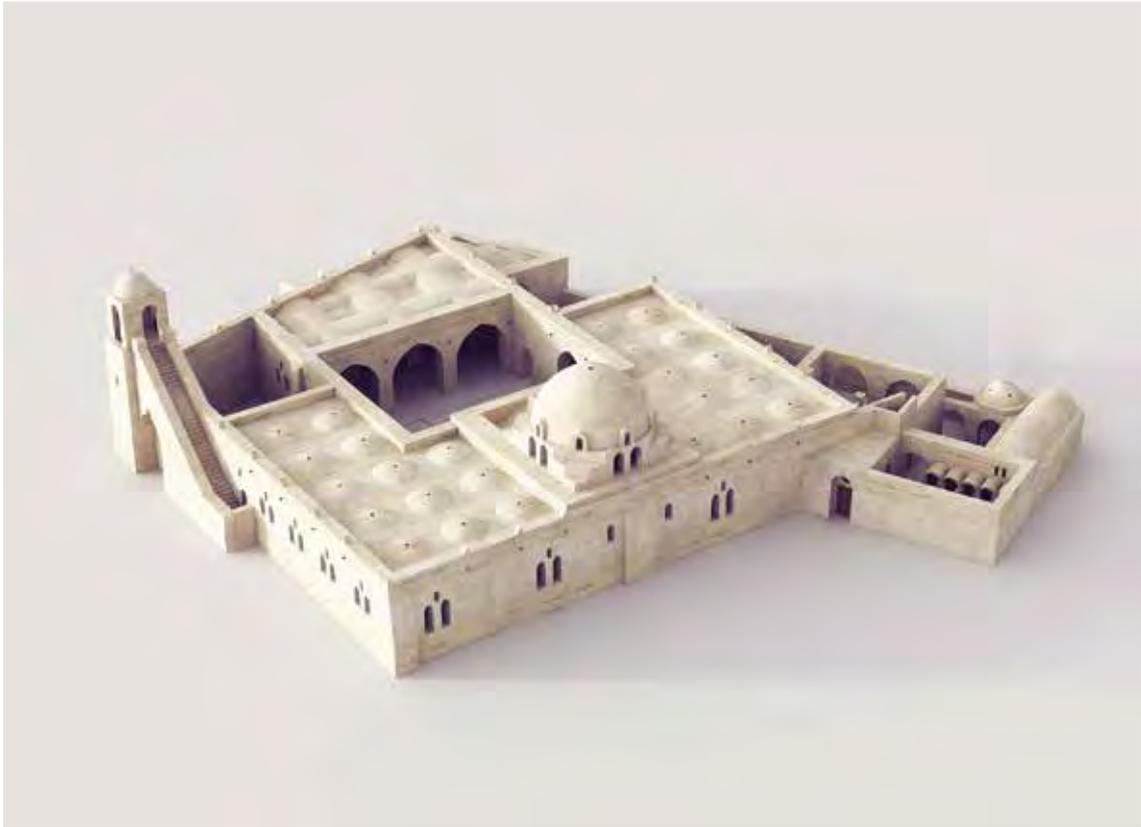


The houses surveyed by the Mission: 1. Mosque (2015-19), 2. Theatre (2015-16, 2019), 3. Khan (2015-19), 4. Fathy's Field House (2015-17, 2019), 5. Abd el-Rassoul House (2016-17), 6. Cattle Market (2015, 2017-18), 7. Village Hall (2017-18), 8. Village Fountain (2017); Houses: 9. Type F (2016-17), 10. Type A (2016), 11. Type G (2017-18), 12. Type H (2016-17), 13. Type I (2017-18), 14. Type J (2017-18), 15. Type K (2018), 16-17. Type D (2018), 18. Type E (2017-18), 19. Type L (2017), 20. Type B (2018), 21. Type M (2017-18)

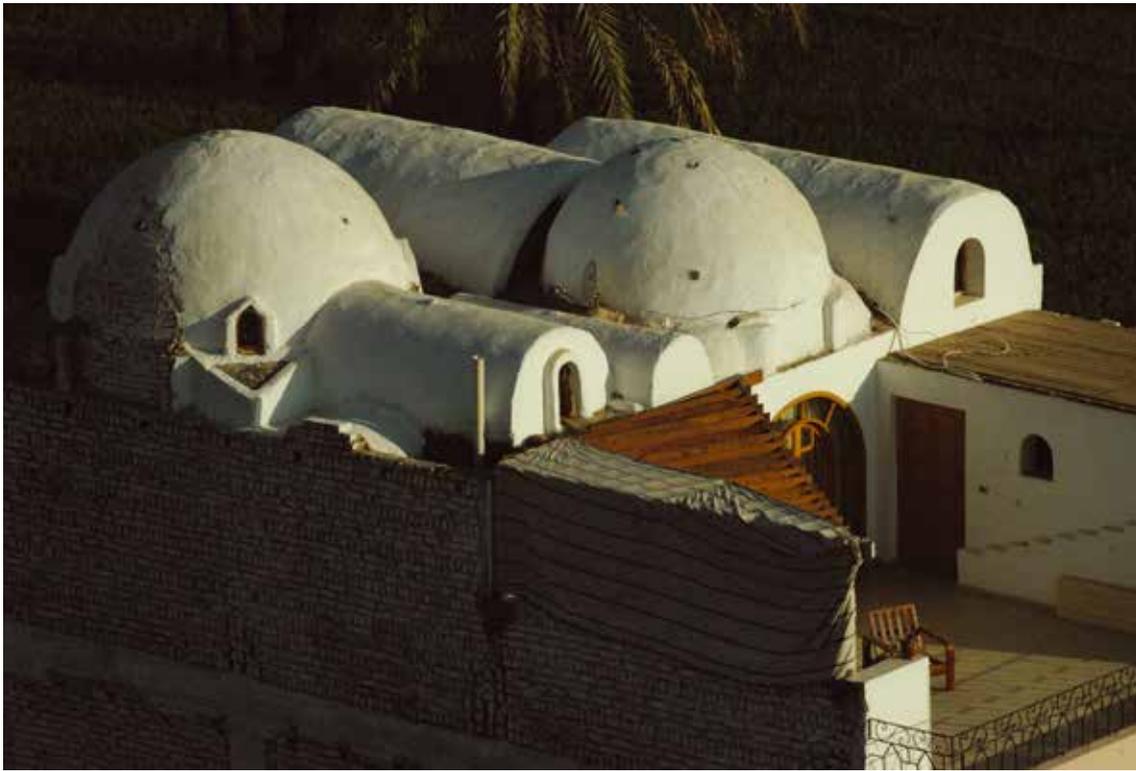


The buildings of New Gourna recorded to be original by UNESCO in 2010 (dark and light) and the ones that still had significant original or reconstructed/rebuilt parts in 2019 (dark)





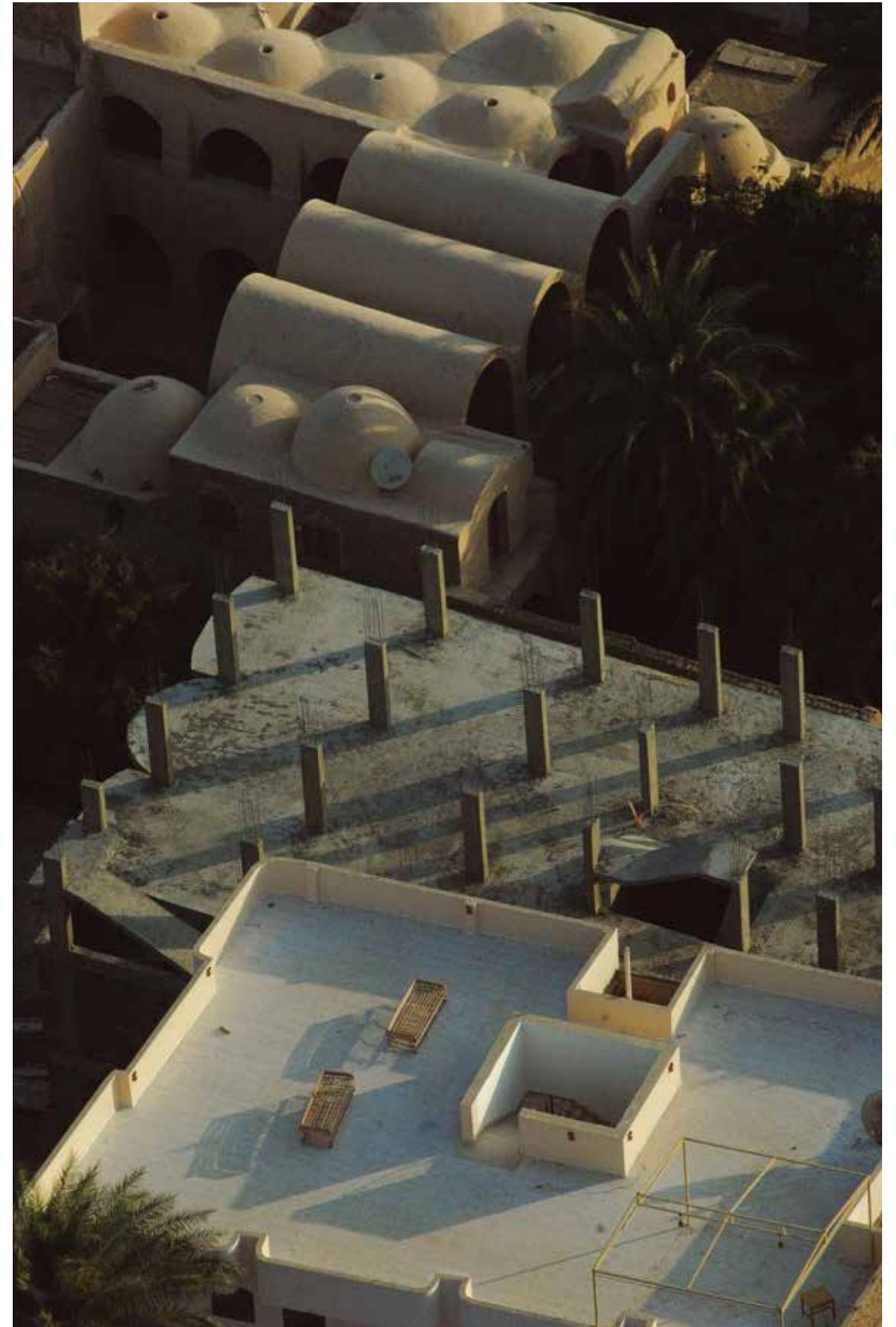
3D view (above) and spatial analysis (right) of the Mosque of New Gourna. Compiled by G. Nagy, based on data captured in 2015-16.



Domed-vaulted architecture in Luxor West Bank. Photo: Zs. Vasáros, 2011.



Domed-vaulted architecture in Luxor West Bank. Photo: Zs. Vasáros, 2011.



Domed-vaulted structures and the typical reinforced concrete and burnt brick architecture in Luxor West Bank. Photo: Zs. Vasáros, 2011.

This has been a trend in rural Egypt as well, although on a different scale, but New Gourná is no exception either. The boundaries of the former blocks and land survive the recent building process, which is mainly due to private ownership. Everything else goes beyond this, however, and the need for 3-4-6 level homes is now the main reason for the expansion of originally two-storey houses. These can no longer be built in mudbrick; new reinforced concrete frameworks were created, which changed the architectural landscape of the cities.³³ There are shortcomings in the plans known in the AUC's Archive as well, since most of the residential house types are only known in the ground floor plans corresponding to the scale and details of a masterplan, so documentation was crucial here, too.

In addition to the primary results of research on Fathy's architecture (that is, surveys), it is really important to look for changes in design principles. Besides propagating traditional technology, i.e., mudbrick architecture, Fathy exhibited a technically feasible, structurally evident and formally rich set of historical architectural repertoire. The tectonic possibilities of the old-new material have not changed since the antiquity, and the meanings of historical spaces and forms have been broadly the same. I should mention Fathy's well-known 'mistake' or intention (?) regarding domes and vaults. In the case of the roofing of community spaces in traditional flat-roofed dwellings in Upper Egypt, Fathy used the so-called Nubian vaults and domes inspired by the Fatimid Caliphate (10th-12th century AD) and the Ayyubid dynasty (12th-14th century AD). The former mainly included the roofs of stables and farm buildings in traditional setting, while the latter were known for tomb and mausoleum architecture and mosques. On the one hand, they made upward extension impossible, but at the same time caused resistance of the inhabitants either because of their banal character or their memory evoking mortality. The possibility of horizontal expansion was already limited due to the fixed street system, the strict and measured masterplan.

Another highlight of the 2015 season was visiting New Baris in the South of Kharga Oasis.³⁴ This project of Fathy's turned out to be as controversial as New Gourná in the end. After returning from the Doxiades studio in Greece, and having gained experience in numerous international projects,³⁵ he was primarily engaged in the design of New Baris, the construction of which was aborted barely a year after its start. The now existing New Baris was built later a few miles to the South from the location of Fathy's masterplan; some of Fathy's unfinished buildings are still standing untouched in the desert. The buildings are in a relatively good condition, as they are far from other settlements, so it is probably not worth for locals to use them as construction materials. The recyclability of the so-called sand brick used by Fathy is also questionable, at least in comparison with the unfired clay bricks used in the Valley. The so-called villa buildings that are sometimes used by art schools are exceptions.

This settlement-scale work for peasants (*for fellahin*) occupies a special place in the oeuvre.³⁶ The circumstances of the design, the scale and purpose of the problem fit Fathy's professional profile. The design process began in 1963, based on the water resources explored in the Kharga Oasis, which encouraged the Desert Development Organization to design a new agricultural production settlement for 250 families.

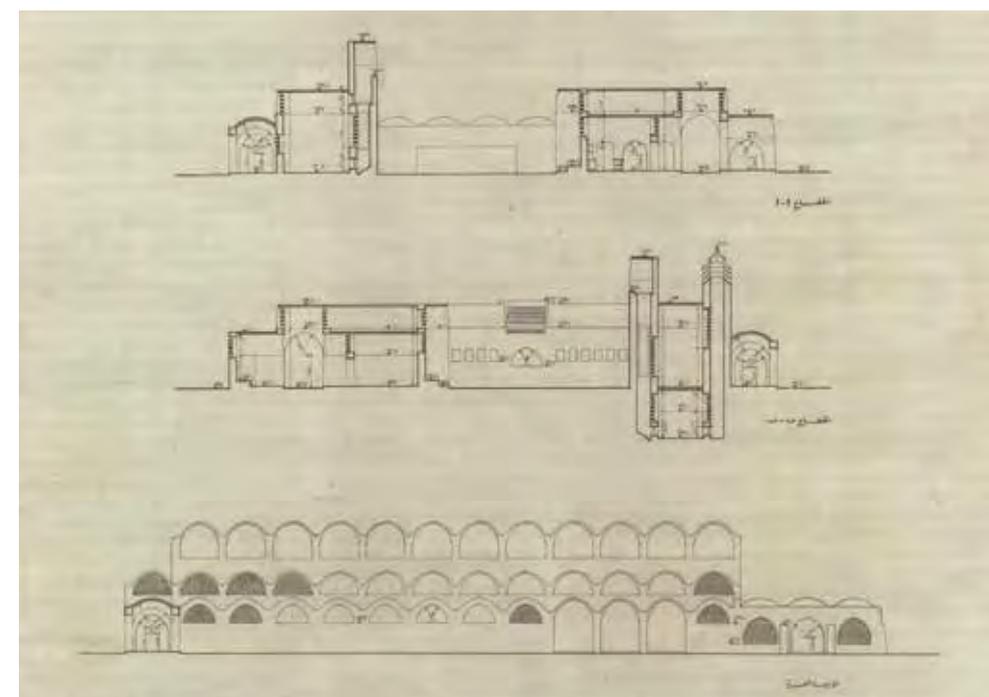
33 See DIENER et al 2010; ANGÉLIL - MALTERRE-BARTHES 2016; DÁVID 2020b, 190-195.

34 About the New Baris project see RICHARDS - SERAGELDIN - RASTDORFER 1985, 90-94, 126-139; STEELE 1988, 92-95; STEELE 1997, 131-145; SERAGELDIN 2007, 82-83; BERTINI 2018d, 220-259; EL-WAKIL 2018b, 226-229; also DÁVID's study about New Baris in this volume.

35 See in general ABELE 2018, 272-287; BAUDOUÍ 2018, 290-311; also recently BERTINI 2018c, 102-107.

36 See EL-WAKIL 2018b, 220-235.

The realization began three years later and was stopped in 1967 due to the Six-Day War which was very damaging for Egypt. Among the realised elements of the building complex, the Market, which can be considered as a kind of centre of the settlement, is the strangest. The architectural features of his work before New Baris are uniform, the composition of some typical elements – typical but not exclusively characteristic of Fathy – is harmonious, but their proportions are still to be found in historical architecture. However, the building of the Market is a special design. Here, as in New Gourná, Fathy began with traditional architecture, studying the old village near the planned New Baris and Balat in the Dakhla Oasis,³⁷ which offered more novelties than the typical architecture in the Nile Valley. As shades are a strange yet evident means of protection from extreme temperatures during the summer months, ancient oasis town cores were built with narrow, winding, often covered streets and formed much more compact, closed designs compared to the Nile Valley complexes. Besides the oasis settlements, Fathy also considered the tombs of the Bagawat Early Christian Cemetery as an important precursor.³⁸ However, the effect of these is only partial, as neither the narrow, covered streets nor the brick architecture of Bagawat can be clearly recognized on the New Baris buildings. The familiar built environment was certainly important to Fathy, and we know the design of his early vernacular buildings, but something else happened in New Baris. As it is known, in 1957 he moved to Athens for a while, where he worked with Constantinos Apostolou Doxiadis. Besides to community projects in Iraq and Pakistan based on traditional values and eco-architectural principles, he was also involved in the African 'City of the Future' program.³⁹



Sections and façade of the Market in New Baris, showing the malqafs. Source: RBSCl, AUC

37 See DABAIEH 2011.

38 See in general FAKHRY 1951; CIPRIANO 2008; also ZÖLLNER 2020, 122-125.

39 See BERTINI 2018e, 124-135; also BAUDOUÍ 2018, 301-304.



The Cattle Market in New Gourna. Photo: Zs. Vasáros, 2004.



Façade of the Village Workshop in New Baris. Photo: Zs. Vasáros, 2015.



Inner façade of the Market in New Baris. Photo: Zs. Vasáros, 2015.



Vaulted structures at the St. Simeon Monastery in Aswan. Photo: Zs. Vasáros, 2017.

He returned to Egypt in 1963 and started to design New Baris almost immediately. Buildings designed and constructed between 1942-1957 constitute a legible collection of his early phase. His architectural repertoire can be interpreted as a set of elements and traditional forms such as Fatimid domes, and the historical roots of the so-called Nubian vaults and rows of terraced domes are clearly present in his work; these trends partly originate in the late 19th century and the first third of the 20th century and the then popular brick architecture, which Fathy 're-invented' or popularized in the 'national' context. In New Baris, the exterior arched façade of the Village Workshop is partly reminiscent of the warehouse at the New Gourna Cattle Market, but it also takes on a new meaning as a porch. The architecture of the Market is special. In the southern tract, Fathy designed areas cooled by natural airflow, and based on on-the-spot measurements the air in those areas was 8-10, according to some publications, even up to 15 °C cooler in the summer due to shading and cooling by active airflow. A well-known architectural tool for this is the so-called malqaf, which Fathy implemented using Nubian vaults and domes. The solution for this is unknown in earlier buildings, malqaf was usually built with a wooden structure and was additively connected to the buildings.⁴⁰ The high ceilings were joined by a basement level. The tight air shafts, which accelerated the movement of air, connected the ground-floor spaces and the cellar, so that the cooled air could pass through the spaces due to the constant wind. The large-scale solution is clearly perceptible and can be clearly seen on the roof structures; it resulted in a composite architectural design not seen elsewhere, a unique, unmistakable character on the façades and roofs of the courtyard. The north façade of the courtyard is of industrial character due to the series of vaults planted on high and essentially solid walls. The northern tract's elongated, parabolic arches on slender walls extending out and perforated walls also help airflow. The complex series of domes and arches extend beyond the mere rethinking of historical roots in tectonic terms, evoking the intricate vaults of Coptic churches. Here, Fathy applies his trademark repertoire in a virtuosic way, in compositions never seen before, and yet remains functional. Spatial analysis based on detailed documentation revealed the building's operational and compositional principles. The otherwise additive character of the floor plan is based on a complex spatial world. The pieces in New Baris play an

⁴⁰ About the traditional malqaf structures see RAGETTE 2006, 87-90.

important role in the oeuvre, especially considering Fathy's late works. Ironically, this outstanding project could not be realised in the end, so much of Fathy's ideas can only be assumed. At the same time, it is a definite goal, based on the available documentation, to visualize the original concept at least virtually, while keeping in mind the realization of the buildings and Fathy's contemporary designs, and to study them.



Analysis of the spatial structure of the Market in New Baris. Compiled by G. Nagy

2016 – THE NEXT STEPS: FURTHER RESEARCH ‘EVERYWHERE’

We continued the fieldwork at both locations of the previous year in 2016.⁴¹ In New Gourná, we conducted a partial survey of three residential buildings, and we extended the documentation of the different types of residential houses. In addition, we refined our survey of the Fathy Field House, the condition of which deteriorated greatly since the previous year. We visited the houses of a retained but mainly uninhabited part of Old Gourná located on a hill called Qurnet Murai in the immediate vicinity of Deir el-Medina. We studied the houses, especially the construction technique and the construction of flat roofed-houses on sloping terrain. Perhaps this was one of the most interesting parts of Old Gourná when the whole complex was still there.⁴²



The remains of Old Gourná. Photo: B. Tihanyi, 2012.

The most important research of the season was the survey of the Stoppelaëre House,⁴³ for which I filed an official permit application at the Supreme Council of Antiquities headquarters in Cairo in the spring of 2015.⁴⁴ The Permanent Committee permitted

⁴¹ The mission in 2016 consisted of the following members: Dr. Zsolt Vasáros (Architect, Field Director), Mr. Áron Sasvári (Architect, Deputy Field Director), Mr. Gergely Sági, Mr. Imre Ferenc Szűcs, Ms. Dóra Dávid, Ms. Stefánia Balázsik, Ms. Kata Kovács, Ms. Klára Lovas, Ms. Vivien Friderika Tibai, Ms. Júlia Pokol (Students of Architecture), Ms. Emőke Erika Bandur-Juhász, Ms. Diána Alexandra Nusszer, and Mr. Gábor Nagy (Architects).

⁴² See in general about Old Gourná VAN DER SPEK 2011; also SIMPSON 2003; also EIGNER 1984.

⁴³ The 2016 site work of the Survey Mission of Hassan Fathy's Architecture/Project Stoppelaëre House lasted from March 9 to March 20.

⁴⁴ The Ministry of Antiquities was represented by Inspector Ms. Christen Jouzef Tanous to whom I am much indebted for kindly facilitating the survey work of the mission on the site. I express here my sincere thanks to Dr. Mamdouh Eldamaty, Minister of Antiquities for the support to realise this season. A debt of gratitude is owed to Mr. Hany Abu el-Azm, Director of the Department of Foreign Missions' Affairs, Mr. Sultan M. Eid, Director of Antiquities of Upper Egypt, Mr. Mustafa el-Wazery, Director of Antiquities of Luxor, Dr. Talaat Abd el-Aziz, Director of Antiquities on the West Bank of Luxor, Mr. Mohamed Abd el-Nasser, Director of the North Area, Luxor, West Bank and Mr. Adel Ervan, Director of the Foreign Mission's Office, Luxor, West Bank.

the preparation of the documentation, after which restoration work began under the supervision of architect Dr. Tarek Waly in April 2016; the work was conducted according to his plans. Thus, in many respects, we were able to document the original state. The Stoppelaëre House, which dates from the years (1950, or 1952) after the construction of New Gourna (1946-48) had been stopped, was designed to be both a guest house for the Department of Antiquities and the headquarters and apartment of Dr. Alexander Stoppelaëre who was the chief restorer of the Department at that time.⁴⁵ Afterwards, in the 1980s it was the expedition house of the Hungarian Mission in Thebes used by the team headed by Prof. László Kákosy. The house was probably extended at the north-eastern corner, and several openings were blocked or rebuilt. From the 1990s the building was in occasional use by the staff of the Department of Antiquities, until 2016 it was empty and without use.⁴⁶ 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.⁴⁷ This house is more ambitious than the others in terms of the extension and the number of its cupolas, the characteristic elements of Fathy's design in this period. This house incorporates three inner courtyards and a garden at the entrance. The particular proportions and surface finishing Fathy used give the building a certain character in the landscape. This work relies on the architect's sensible creativity for composition.⁴⁸ Fathy's writings, paintings and drawings for his projects are more contemporary than the buildings themselves. His interest in vernacular architecture was not only aesthetic. He was interested in the construction solutions used in each area, the consistency between buildings and their environments or the landscape⁴⁹. At first glance, this house looks simpler and more asymmetrical than other villas and buildings of the period. For example, the four differently positioned cupolas on the accessible roof are more extravagant than the flat roofs that cover Nubian vaults. Nevertheless, a number of important Fathy characteristics are present at this house. Briefly, these are: the above mentioned cupolas and Nubian vaults, mashrabiyyas, courtyards and their annexes, irregular window placement, low-key ornamentation. The use of a variety of window types is enhanced by the window designs and is mostly typical of Fathy's vernacular structures.

In spite of the fact that no final 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 influence an initial design idea. The photographs of the actual building are equally important as they include interior views of both the rooms and the courtyards. As is the case with so many of Hassan Fathy's surviving works today, access into the Stoppelaëre house is now restricted, our application aimed to extend our knowledge with this important early work of the architect. Just like every building designed by Fathy, this one is also built of mudbricks.

45 Alexandre Marie Jean Baptiste Stoppelaëre (St. Paul-de-Fenouillet/France, May 15. 1890-Issy-les-Molineaux/France, April 13. 1978), for more biographical information see BIERBRIER 1995, 406.

46 After the reconstruction works the Villa is used currently used by the Factum Foundation for Digital Technology in Conservation. See <http://www.factumfoundation.org/pag/245/Restoration-of-Stoppelaëre-House> (downloaded 17.02.2020.)

47 See STEELE 1989, 90-92.

48 See STEELE 1997, 40, 44-47.

49 See WARNER 2018, 268-269.



Southern façade and the surroundings of the Stoppelaëre House. Photo: Zs. Vasáros, 2016.



Southern façade of the Stoppelaëre House. Photo: Zs. Vasáros, 2016.

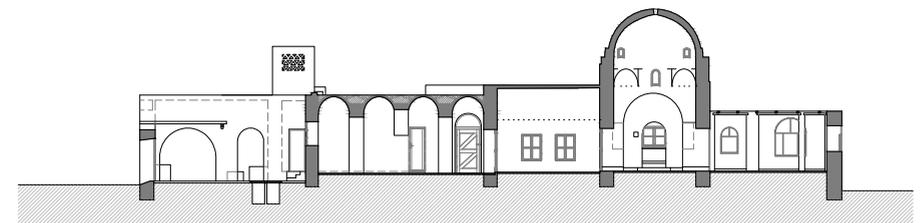
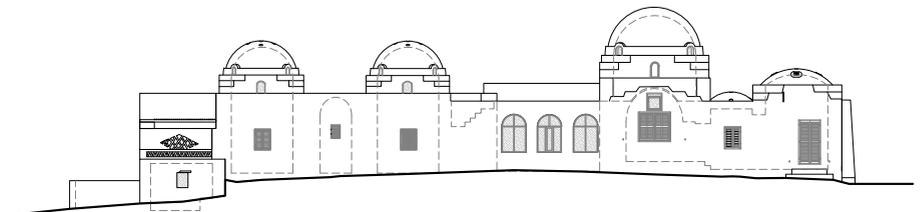
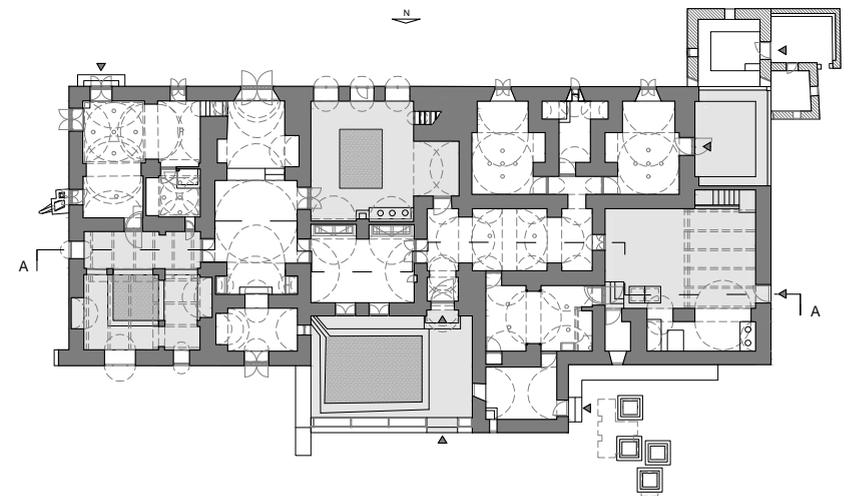
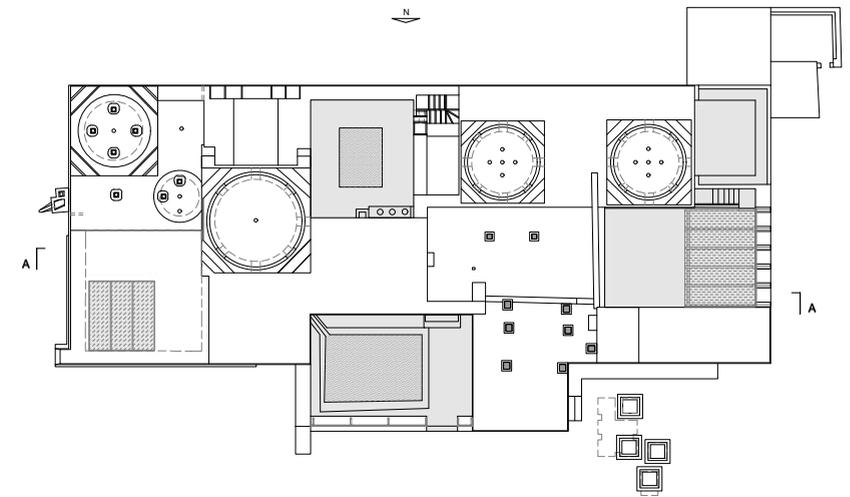


Eastern façade of the Stoppelaëre House. Photo: Zs. Vasáros, 2016.

At times, heavy rainfall left its marks on the plaster that covers the mudbrick construction. The plastering was once completely repaired, partly renewed. Large cracks in the walls and on the floor make one wonder. Having been built on the top of a conglomerate hill, slightly descending in western direction, endanger the stability. The western section of the hill has suffered some damage over the years. Although the house is still in a very good condition, it could do with a lot of repairs. The foundation and partly the outer wall (up to cca. 2,0 m) was made of limestone blocks. For the rest, wood and mudbricks were used, while burned bricks were used for some of the interior walls. In order to get some cooling, the house was constructed using cupolas with flexible openings above the squinches. Doors, some lamp fittings, floor tiles, some of the mashrabiyyas and the windows and doors have been able to withstand the test of time. Not all of the original house and surrounding structures have survived, though, this should be cleared by further research.



Interiors of the Stoppelaëre House. Photos: Zs. Vasáros, 2016.



Survey plans of the Stoppelaëre House, compiled by the members of the Hassan Fathy Survey Mission based on data captured in 2016.

We also returned to New Baris where we reviewed and completed the plans for the buildings surveyed in the previous year. We also surveyed the Bus Stop and the Guard's House, as well as the unfinished house between the Market and the Khan. Unfortunately, we could not enter the villa buildings, but we documented their façades.⁵⁰

We also worked on a new location in Garagous, where several buildings are linked to Fathy's work.⁵¹ According to available publications, the circumstances of construction are still unclear. Originally Fathy designed the Cultural and Health Centre and Pottery and Ceramics Factory for the Jesuit community. Plans for this, at least one site plan for each, have survived; the rest, if any, are currently unknown. Photos of the buildings have been published in studies on Fathy and, recently, in a volume illustrated with archival images of the Garagous community. The study of the site revealed how differently the buildings have been constructed: Fathy's concept has been either thoroughly redesigned or realised differently. Some of the buildings may correspond to certain details of the original design, but certainly not to the whole. Records reveal conflicts between Fathy and the monks, which may have been enough reason for the architect to leave the project before its completion. Either way, we decided that the case of Garagous itself is quite interesting and needs to be clarified at many levels, so we would pursue the survey. Both groups of buildings, the Pottery and Ceramics Factory and the school-kindergarten-hospital-church-parish unit have been used, which guaranteed their survival so far, but has caused many logistical difficulties. During the survey, especially regarding the Factory, it seemed that in some cases Fathy's plans were fully realised, while other buildings contained only traces of his vision. This was also evident in the school building, where some details and parts remotely resembled the well-known, unique forms, while others, such as the classrooms, typically followed Fathy's style. Due to organisational difficulties, it became clear that our work would last for years, but the hospitality of locals helped a lot with the documentation.⁵²

2017 - IN SEARCH OF NEW BUILDINGS AND HISTORICAL ANALOGIES

We visited the site twice in 2017, in January and March. In January, we also conducted surveys with a small team and studied important analogies in Fathy's oeuvre. We looked at some of those that he mentions or refers to in his writings, but also the ones that he may have known and therefore can be of interest for further research.⁵³

We spent only a short period of time in Garagous to refine last year's Pottery and Ceramics Factory surveys. We visited the Red and White Monasteries in Sohag,⁵⁴ the architecture of which Fathy does not explicitly refer to, but the complex vaulting structure of their shrines appears several times in his oeuvre.

⁵⁰ See DÁVID's study in this volume.

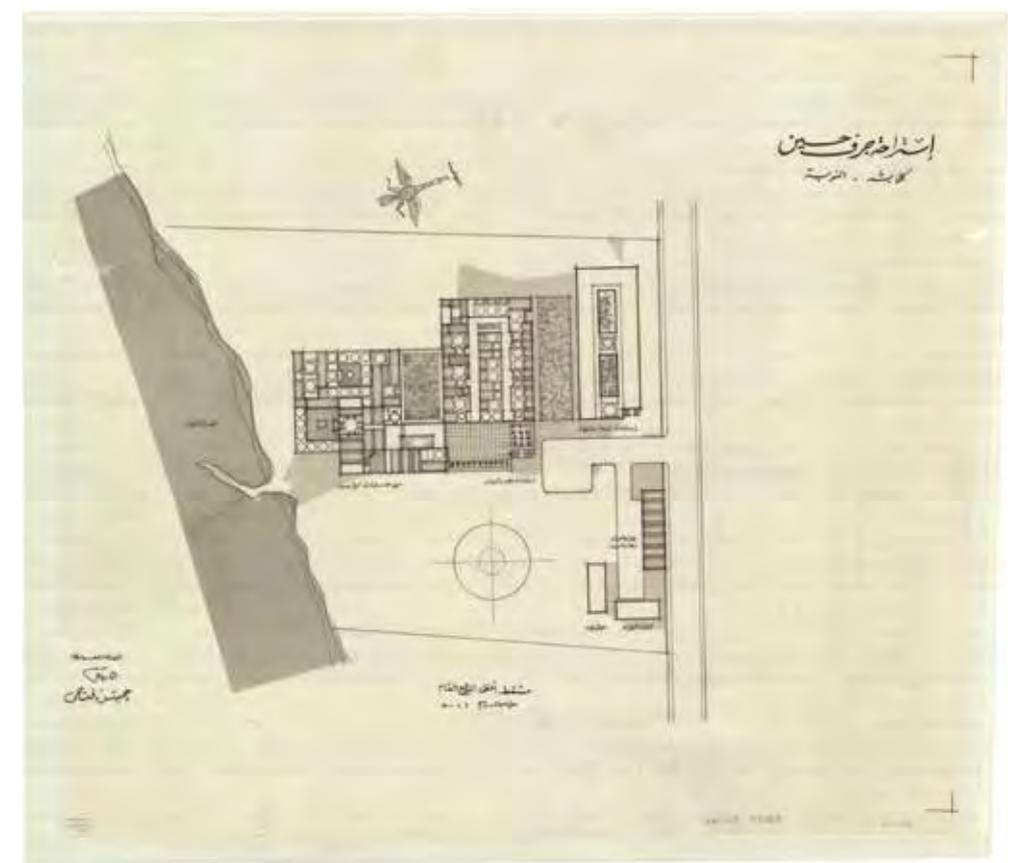
⁵¹ See SIDHOM 2018; HAMID 2010, 136-139; also STEELE 1988, 79.

⁵² We are grateful for the managers of the Pottery Factory in Garagous, Fawaz Sidhom, Hebeish Kamal (Riad), Isqag Youssef, Guirguis Youssef, Louis Ayad, Fabien Morcos, Matta Sidhom and Maurid Soliman for allowing us to enter and survey their workplace year after year. Accordingly, we thank Father Rafael Nashed, the priest of the church in Garagous and Ishaq Guindi, the director of the school in Garagous for enabling our work in their institutions.

⁵³ The mission in January 2017 consisted of the following members: Dr. Zsolt Vasáros (Architect, Field Director), Ms. Dóra Kalász, Ms. Kinga Gacsályi, Ms. Enikő Kosztolányi, Ms. Ticiána Nagy, Ms. Augusztina Vörös (Students of Architecture).

⁵⁴ See BOLMAN 2016 about the Red Monastery and PEERS 1904 about the White Monastery.

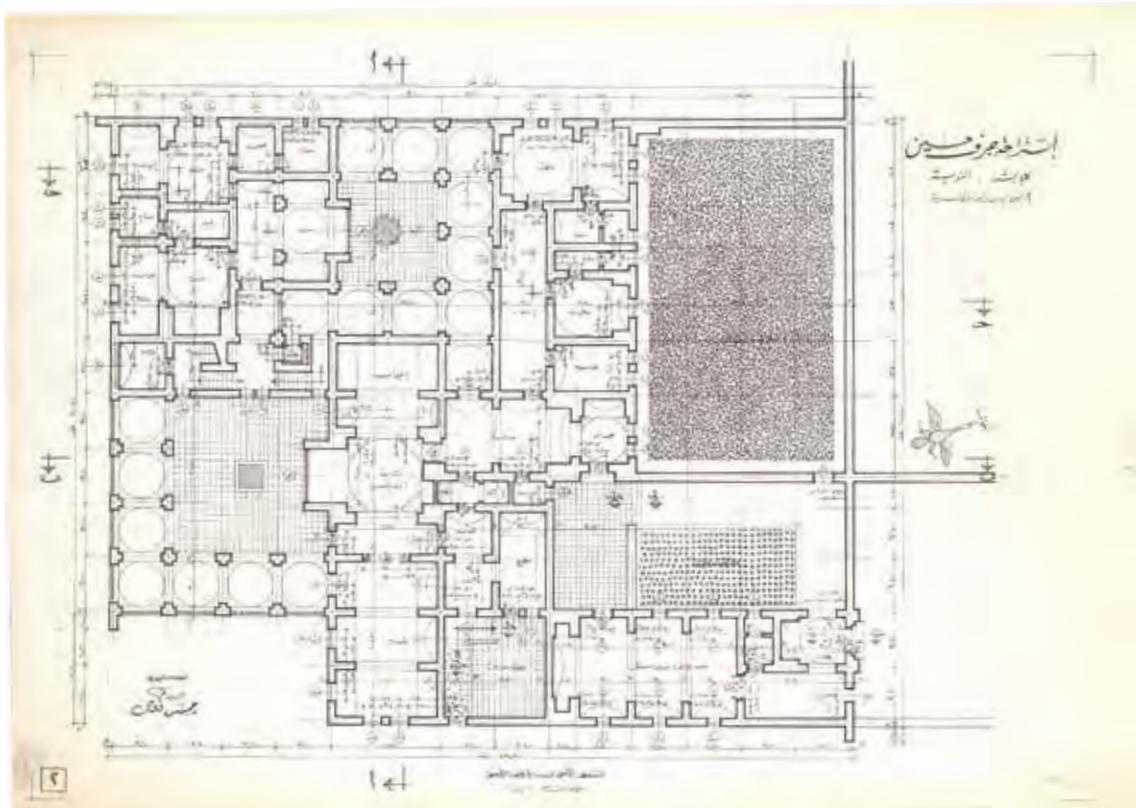
We visited a residence partially built in Gerf Hussein in 1981, originally designed for the President Anwar Sadat.⁵⁵ We conducted several surveys but did not finish the work. This is a puzzling work of Fathy. At this time, he became an internationally recognized architect, and he was also working on the plans of Dar al Islam Village in New Mexico. Fortunately, almost the entire construction design documentation for the entire rest house complex has been retained in the AUC collection, including plans for plumbing and arched windows, etc.⁵⁶ Being a presidential residence, the complex would have consisted of several buildings, but only the main building was actually realised. Only the walls of the building are intact on the site and only fragments of the former wooden windows and doors remained; the decorative water basins and floor coverings were smashed, and the building was ransacked. It seems this part was never finished, and the built units show smaller deviations from the original design. The full 3D reconstruction of the villa building is a long-term goal of the research, as available plans allow it; additionally, the highly complex, generous and partly realised villa could become a more significant virtual part of Fathy's legacy. The site's interior spatial relationships and its visual connections to the exterior and landscape constitute a fascinating system.



Original siteplan of the Sadat Rest House. Source: RBSCL, AUC

⁵⁵ See in general SERAGELDIN 2007, 94-95; EL-WAKIL 2018b, 233-235; RICHARDS - SERAGELDIN - RASTDORFER 1985, 51, 78-81; POKOL 2020, 110-115; also SERFŐZŐ 2020, 116-121.

⁵⁶ I express my sincere gratitude to the Rare Books and Special Collections Library of the American University in Cairo, especially to Mr. Philip Croom for agreeing to an official cooperation with us, and Ms. Balsam Abdel Rahman and Ms. Ola Seif for their help.



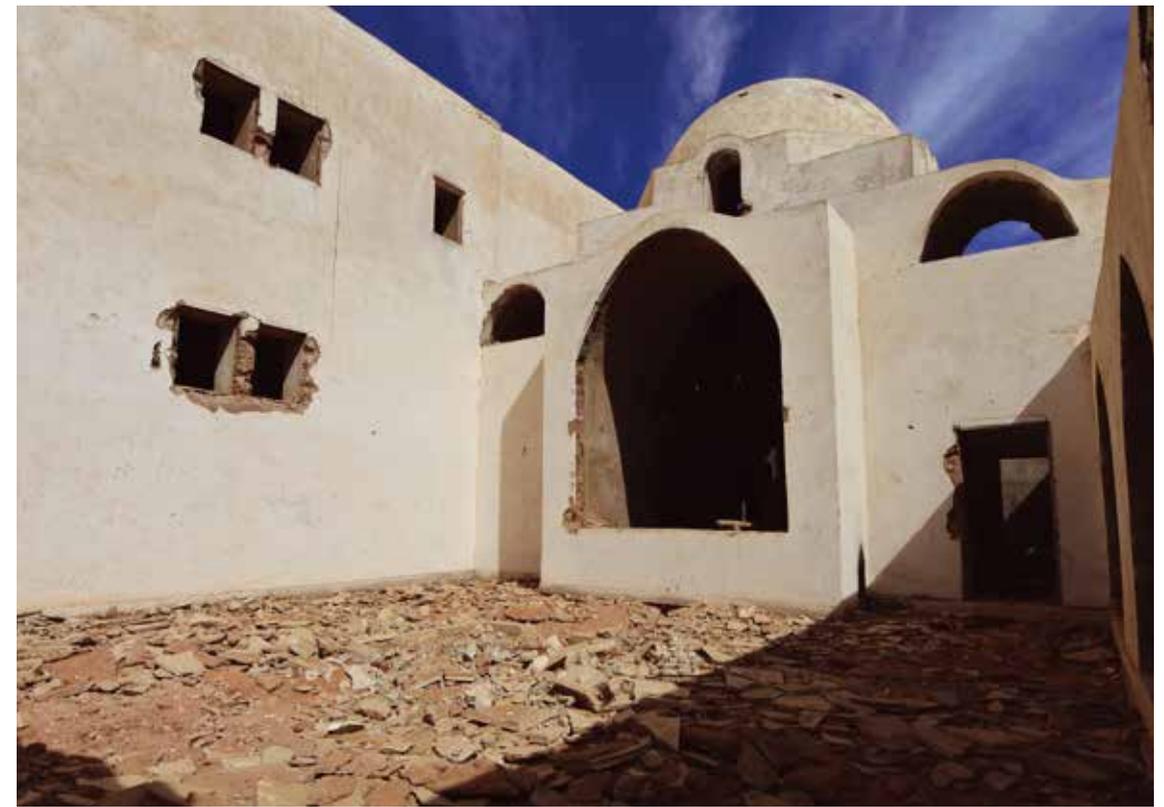
Original plan of the Sadat Rest House. Source: RBSCl, AUC



The destroyed interior of the Rest House. Photo: Zs. Vasáros, 2017.

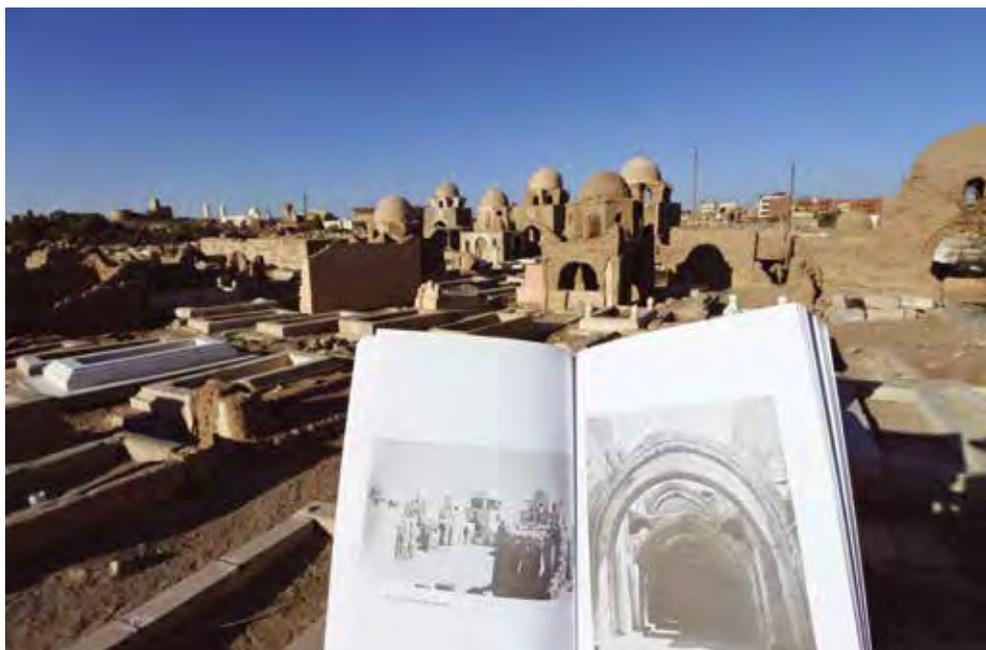


The Sadat Rest House. Photo: Zs. Vasáros, 2017.



Abandoned courtyard of the Rest House. Photo: Zs. Vasáros, 2017.

During our stay in Aswan, we visited the Monastery of Saint Simeon;⁵⁷ its vaults are also referred to by Fathy.⁵⁸ We made several study drawings, including the Nubian vaults of farm buildings, which were often part of Fathy's oeuvre, e.g. the vaulting rows of New Baris, the Cattle Market in New Gourná, the New Gourná Mosque, and the Khan lavatory area. We visited the Fatimid Cemetery in Aswan and studied the architecture of the mausoleum group which is mentioned in Fathy's book titled 'Architecture for the Poor'.⁵⁹



The Fatimid Cemetery in Aswan. In the front: H. Fathy's own picture of the site in 'Architecture for the Poor'. Photo: Zs. Vasáros, 2017.

In March 2017, we returned with a larger team to continue our field research.⁶⁰ There was another important piece among Fathy's Upper Egyptian works, the Fares School, which we definitely wanted to document. We had already visited the site in January 2017, but the school was closed and had not been in use for quite some time due to rising groundwater levels. The teacher in charge of maintenance could not let us enter the building and directed us to Kom Ombo and to Aswan, from where we were sent to Cairo to apply for official permission. Our application was finally filed with the Ministry of Education in March, and we were granted permission in 2018, and conducted the survey in 2019.

We worked in many places during the March season. In New Gourná, we conducted minor refinement surveys on almost every previously surveyed public building, but we also surveyed new residential buildings, two of which were extremely important. One example is the so-called Abd el-Rassoul House, one of the few residential buildings that still exists today, that is, existed in 2017 and is shown in several archive photos.⁶¹

57 See DE VILLARD 1927; also CLARKE 1912, 95-111.

58 See FATHY 1973, Fig. 4.

59 See FATHY 1973, Fig. 3.

60 The mission in March 2017 consisted of the following members: Dr. Zsolt Vasáros (Architect, Field Director), Ms. Dóra Dávid (Student of Architecture, Deputy Field Director), Ms. Nóra Andrásy, Ms. Kata Kovács, Ms. Anna Lukács, Ms. Lili Maklári, Ms. Bernadett Miklós, Ms. V. Friderika Tibai, Ms. Laura Veres (Students of Architecture), Ms. Anikó Somlai (Architect).

61 See FATHY 1973, Figs. 53-54., 56.

This was probably due to the special character of the house and to the fact that the Abd el-Rassoul family was well-known. The island-like building has a specially constructed layout. The house was built with intricate arches and it has been thoroughly rebuilt, yet it still exhibited the essential elements, so its original style could be documented. Several plans of this house have been preserved in the AUC archive, so further research can provide interesting insights into the construction process. Another very important house is the Village Hall, originally built perhaps for the Omda, the prefect of Old Gourná.⁶² We do not know who it belonged to after the construction, but to our knowledge, the Omda remained in Old Gourná. Part of the house has since been remodelled and expanded, but thanks to Fathy's generous design and larger spaces, the building has been largely preserved. Nowadays, many families live in the complex, and it was very interesting to observe the transformation of the house and the volume of interventions which made its use. In addition to the above two, the team also documented five more houses in New Gourná, many of which were already ruined or partially uninhabitable. The habitable ones, of course, displayed the difficulties of upward expansion caused by the domed spaces, for which Fathy has been criticized, yet as they were inhabited, the buildings survived. Of course, the one-storey mudbrick houses look strange between the 4-6-storey new buildings, but at least some of Fathy's unfinished dream survives.

We returned to Garagous, where we began surveying the former Cultural and Health Centre. We could not access every room, but we documented much of the school and the church. The conversations and interviews revealed many details; much of the building complex is marked by Hassan Fathy's style, although the whole complex was ultimately realised in a different way from the original plans made by the architect.

In Aswan, we revisited the mausoleums of the Fatimid Cemetery, and made several study drawings and spatial-structural analyses.⁶³ There are buildings in Fathy's oeuvre that display elements of the Fatimid forms and structures, but Fathy did not tend to use these composite dome systems; instead, he sought inspiration in the much simpler domes found in Nubia, and in early Islamic, and Coptic architecture. In many places in Gharb Al-Aswan (West Aswan), one can observe the construction technology that once fascinated Fathy. The Abu Riche village documented by Fathy still exists, but most of its old buildings are no longer intact; however, very similar ones can still be found in Aswan. Curiously, the Nubian vaults are still used today and constitute integral parts of many buildings but have been used exclusively to cover storage and farm buildings and stables. Residential buildings, like those in Old Gourná and practically in all of Egypt have flat roofs. Fathy could certainly have studied this or similar settlement structures, but this ordinary form inspired him to use it extensively, and even to make it part of his buildings at a monumental scale.

We also returned to Gerf Hussein, where we continued to document the Sadat Rest House. We were intrigued by the marble mosaic fragments of the former water basins. The original designs include two pools, while the other plans include a third one, although the latter is only a sketch.⁶⁴ There were no accurate drawings of these pools, and it is difficult to identify the details in the photos. We have documented the fragments on site, and in the future, we intend to complete the theoretical restoration of the pools as part of a 3D reconstruction project. In the next volume Fruzsina Serfőző presents a possible reconstruction of one of the pools.

62 See FATHY 1973, Fig. 88.

63 See SPEISER et al., 2013; also BJÖRNESJÖ – SPEISER 2014.

64 See on Fathy's plan, RBSCL, AUC Archive Nr. 81.03 A 102 XP 1.



The prayer hall of the Mosque in Mahamid. Photo: Zs. Vasáros, 2017.



The minaret of the Mosque in Mahamid. Photo: Zs. Vasáros, 2017.

This season, we began surveying a probably medieval mosque in Al Mahamid. The village stretches several kilometres along the Luxor-Edfu road. Very interesting buildings with ornamentation not seen elsewhere lined the streets of the village built on a slope. There was a minaret of an old mosque among the houses, the documentation of which, due to its rarity and special design, was included in the program.⁶⁵ The minaret was made of clay and crude wooden panels. Its age cannot be determined, but it may be

⁶⁵ The primary evaluation of the site research was made by Kata Kovács (student of architecture) with the contribution of the 'National Talent Program' (*Nemzeti Tehetség Program*), 'Scholarship for the Young National Talents' (*Nemzet Fiatal Tehetségeiért Ösztöndíj NTP-NFTÖ-17*) in 2017-2018.



Aerial photo of the St. Tawadros Monastery in Deir el Mohareb. Photo: Zs. Vasáros, 2011.



Section of a series of domes of the St. Tawadros Monastery (3D pointcloud, SfM). Compiled by B. Miklós based on data captured in 2017-2018.

of medieval origin; this assumption is based on analogies. The prayer space was expanded several times, and a school wing was added to it. The uncovered streets of the settlement with their organic structure are picturesque and its precious houses are certainly doomed to destruction. It would be worthwhile to create a more detailed photo documentation of the houses, amended by a few surveys, in order to preserve the fragile and transient vernacular world of rural Egypt.⁶⁶

⁶⁶ About early mosques and minarets see O'KANE 2016, 25; also BLOOM 1984.

Another interesting building included in the mission program is the Church of the Saint Tawadros Monastery in Deir el-Mohareb.⁶⁷ Here we studied the dome system using the 'Structure from Motion' method to capture the exact geometry of the interior and generate an accurate floor plan.⁶⁸ We learned the method during our field surveys in Romania and Syria and applied it in almost every survey in Egypt.⁶⁹ The long-term goal is a full documentation of the exciting early Coptic monastery's church, and to study in detail the arches of special shapes, which may be the subject of independent research in the future.

SUMMARY

At the outset of the on-site surveys and research, we were aware that our work fills a gap and is very important. On the one hand, besides the archive data, we will have an accurate picture of the buildings, which is valuable in itself and allows further analysis after publication. On the other hand, Fathy's approach and architectural mindset outlined in his own and others' writings can be deciphered because we do not rely only on information that is partial or prompted by others. In almost all cases, new information or new data was discovered, which was absolutely necessary to create a new image of Fathy and to amend previous views. In this volume we are presenting a diploma project and some short reflections of the participants. The interpretation and description of the objects, sites is not timely yet; the primary experience of personal observation and presence is much more important for the examiner. This is how the field experience and the data capture might turn to a useful knowledge later, which shapes the architectural thought process. Our aim is to provide not only data, i.e. surveys, but also analysis of the documentation; a practical way is virtual modelling of the original plans and the realised outcome, while analysing the differences between the plan alternatives and reality.⁷⁰ There is a need for a detailed review of the archive materials, now focused on the specifics and the issues that arise. A direct contribution to this is the agreement signed between our Mission and the 'Hassan Fathy Collection of the Rare Books and the Special Collections Library of the American University in Cairo' in February 2019. Almost all of Fathy's design and photographic materials, as well as his survey notes and library can be researched at this institution, which is exemplarily organized; in return, our survey materials will be deposited here once our research is completed. There are several strands to the study of the oeuvre as a 'big picture.' Fathy is considered an outstanding architect because of the joint design of the New Gurna complex and his professionalism in his subsequent period, and based on the new results, the entire oeuvre should be reconsidered. All this can be seen in a broader context. There is very little scholarly discussion about Fathy's contemporaries, especially Egyptian architect Ramses Wissa Wassef (1911-1974), whose remarkable work is in many respects comparable to Fathy's. There is still considerable hiatus in this field, and it is worth studying architects from an African and Middle Eastern perspective, particularly

67 See LECUYOT 2019, 18-20.

68 The primary evaluation of the site research was made by Bernadett Miklós (student of architecture) with the contribution of the 'National Talent Program' (*Nemzeti Tehetség Program*), 'Scholarship for the Young National Talents' (*Nemzet Fiatal Tehetségeiért Ösztöndíj NTP-NFTÖ-17*) in 2017-2018.

69 Máté Szabó and Bendegúz Takáts trained us to learn to usage of the SfM method, for which I am grateful.

70 I express my gratitude to the students who participated on the postprocessing works: Mr. László Cseresznyés, Ms. Panna Erhardt, Ms. Blanka Viktória Gáspárdi, Ms. Tamara Huszár, Ms. Adrienn Kálmán, Mr. Dávid Kiss, Mr. Ábel Péntes (Students of Architecture)

those who, along Fathy and Wissa Wassef,⁷¹ have been able to truly revolutionise post-colonial architecture by understanding and constructively exploring local roots. The works of a French architect of Hungarian origin, László Mester de Parajd (1949-) in Niger,⁷² and Tunisian-French architect Charles Boccara (1940-), as well as an outstanding contemporary architect, Diébédo Francis Kéré (1965-), who, through his plans in Burkina Faso and Mali, prove the relevance of contemporary architecture based on local traditions.⁷³

The focus of postmodern architecture, a significant period of Fathy's vernacular architectural work, was to search for shapes and interpret their meanings, while material and structure were secondary. In Fathy's vernacular architecture, material and the related technology form an organic - tectonic - system, and forms are largely derived from it. He was able to express historical forms and archetypal spaces, as well as the architectural world of novel features, through mudbrick architecture, and from that point of view he was absolutely authentic. Fathy's reassessment could be based on the vernacular architectural work described above and its regional and universal outlook. Contemporary understanding of traditional architecture is still an important issue today, and the analysis of relevant and instructive examples may answer our questions.⁷⁴ Nowadays, the exciting new issue is the old-new role of materials, although the interpretation of (building) materials is an ongoing debate in contemporary architecture. Few years ago, Prof. Ákos Moravánszky published a book on the 'metamorphosis of materials',⁷⁵ which explores the new meaning and application of materials in contemporary architecture, while also exploring the historical and cultural background of the subject. Research considering Fathy's work in this field would be interesting. Thus, further exploration of new insights and their incorporation into new contexts could provide a new research angle.



Reconstruction works of the Late Period tomb on El-Khokha in the Necropolis of the Noblemen in Luxor West Bank. The tomb was excavated by the Hungarian Archaeological Mission in Thebes under the supervision of Prof. L. Kákósy and Dr. G. Schreiber. Parts of the unique structure were built with Nubian vaults.⁷⁶ Photo: Zs. Vasáros, 2004.

71 See recently ANORVE-TSCHIRGI – ABUSHADI 2020.

72 See in general MESTER de PARAJD – MESTER de PARAJD 1999.

73 See in general LEPIK – BEYGO 2016; KÉRÉ 2018.

74 See in general FREY 2010; LEPIK 2014.

75 See MORAVÁNSZKY 2018.

76 See SCHREIBER – VASÁROS 2005, 1-27.



Aerial photo of New Gourna. Photo: Zs. Vasáros, 2011.

NEW GOURNA

Notes on a village

Bernadett Miklós

One of the main focuses of our field work and research of 2015-2016 was the village of New Gourna on the West Bank of Luxor, which is probably the most famous project of Hassan Fathy's rich oeuvre. Arriving to the settlement we find ourselves in a different world, in a village where one feels a special medley of past and present. The Model Village is relatively far from the magnificent remains of the ancient world, where the special atmosphere and density of Arabic settlements, traditions of centuries mix with the modernity reaching every corner of the planet. Coming from our comfortable European life the most conspicuous in this extreme situation is the nature of social problems, to which Fathy's New Gourna project was looking for a solution already in the mid-1940s.

Even though this is Fathy's most well-known and in many places celebrated work, it cannot be considered as a complete success. Although he designed 800 houses, only 130 were ever realised, and even those did not work as the designer had imagined. The resettlement of the people of Old Gourna was not complete, partly due to the insufficient number of new houses, partly due to the infirm actions of the authorities in the Old Gourna resettlement project.

One of the most serious design mistakes Fathy made might be that he misunderstood or did not analyse the needs of the targeted group properly. The ethnic groups of Old Gourna, often in rivalry, lived isolated from each other, clustered together in groups of houses, which isolation was not significant enough in the structure of the new settlement. Fathy divided the blocks of houses designed according to tribal hierarchy by two main roads, which, apparently, was not enough compared to the old, topographically significant separations, leading to social tensions. In his book *'Architecture for the Poor'*¹ Fathy describes that he aimed to design for the individual needs of the families when defining the size of the houses, however, he did not take possible expansions into consideration. Cohabitation of multiple generations in families is natural in the traditional Arabic family model. The loosely connecting houses of the old settlement enabled expansions horizontally and, to a limited height, vertically; while horizontal expansion was not possible in the dense and strict structure of New Gourna, and vertical expansion was made impossible by the vaults and domes. There were some structural mistakes as well; the foundations were made of mudbrick in the first phase, then later he used the local, extremely porous limestone; neither could resist the groundwater.

The idealistic plans thus turned into the torso of a utopia; the image of the settlement has been completely altered by now. Majority of the old houses were demolished and replaced by concrete-pillar structures, which fit into the original layout of the village, however, considerably exceed the original volumes. The architecture of the village has become disorderly, only the original street structure can be recognised by the attentive visitor.

¹ See FATHY 1973

It is reasonable to question whether we can find solutions to the problems in a culture so far from ours. What exactly are we doing with the ruins of an idea which is overly published, undoubtedly valuable, however, probably overrated? We might be right to assume that the Model Village project of New Gournia is far from being perfect, nevertheless, it is an important and internationally recognised work from Fathy's oeuvre. Despite the mistakes and misunderstandings, he was already thinking of sustainable settlements, houses and materials in the middle of the 20th century. This was far ahead of the social and architectural considerations of the Arabic and the Western world of the time, which might have contributed to the early shutdown of the project besides the more practical reasons. He was targeting the typical problems of sustainability, eco-friendliness, social thinking and community design.

*'In short, I wanted in the public buildings of Gournia to provide for all the communal needs of the villagers—for their work and trade, for their education, for their amusement, and for their worship.'*²

Hassan Fathy

His work influences today's 'architecture for the poor' also, he raises attention to the housing problems of the less privileged, this is why his book is being published over and over, and multiple generations of researchers are studying his work. His book titled 'Architecture for the Poor' inspires today's designers for complex thinking, raises attention to education, community design, the importance of craftsmanship. The project is a milestone in international architecture as well, generations have been able to study the basics of nature-friendly, vernacular design on the example of New Gournia.



The main square of New Gournia from the minaret of the Mosque. Source: RBSCL, AUC

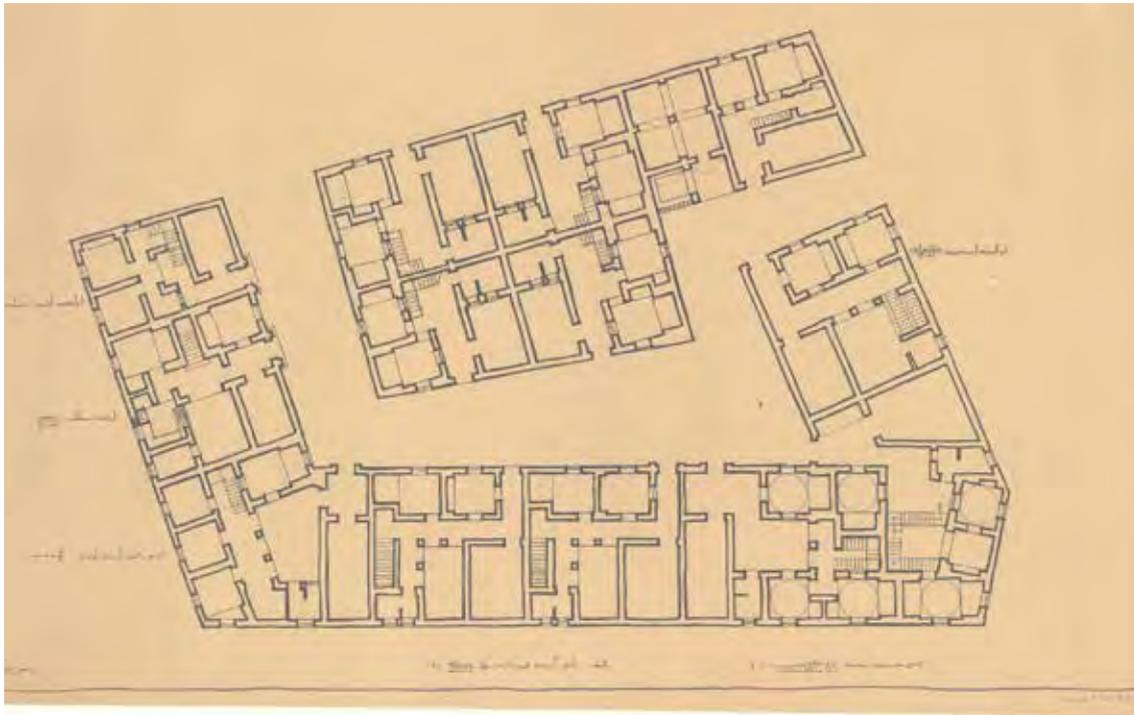
² FATHY 1973, 67



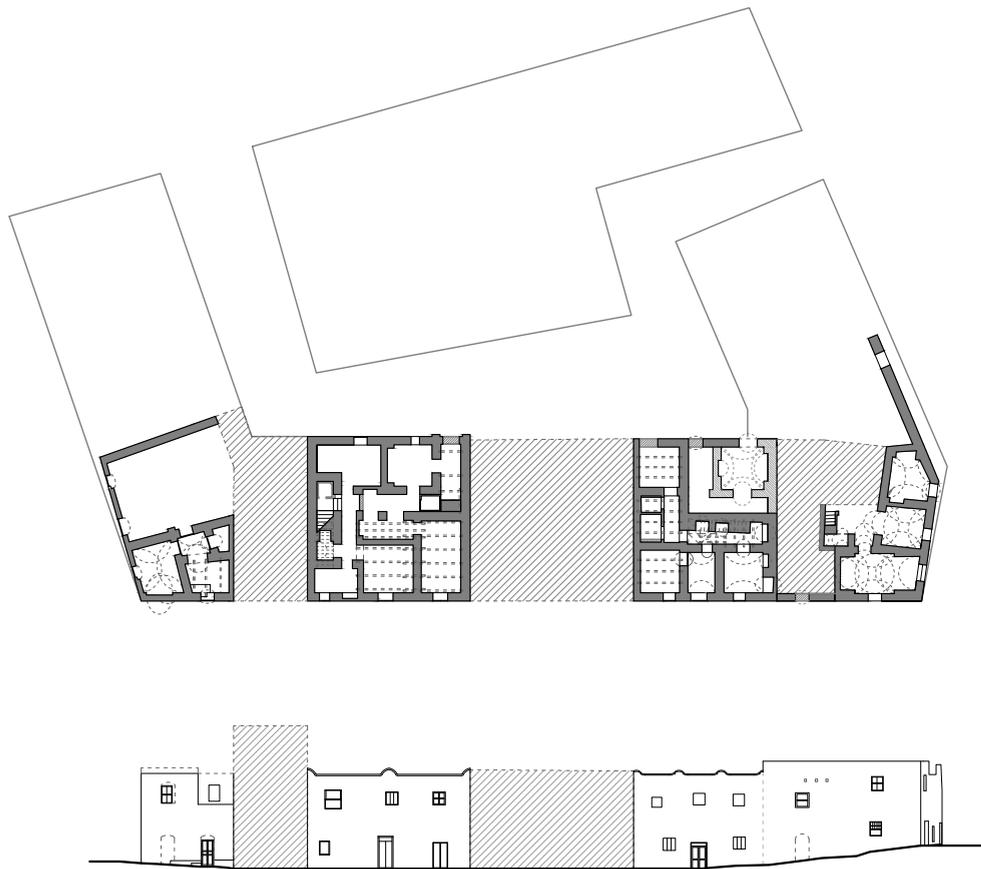
Mix of old-new structures in New Gournia. Photo: B. Miklós, 2017.



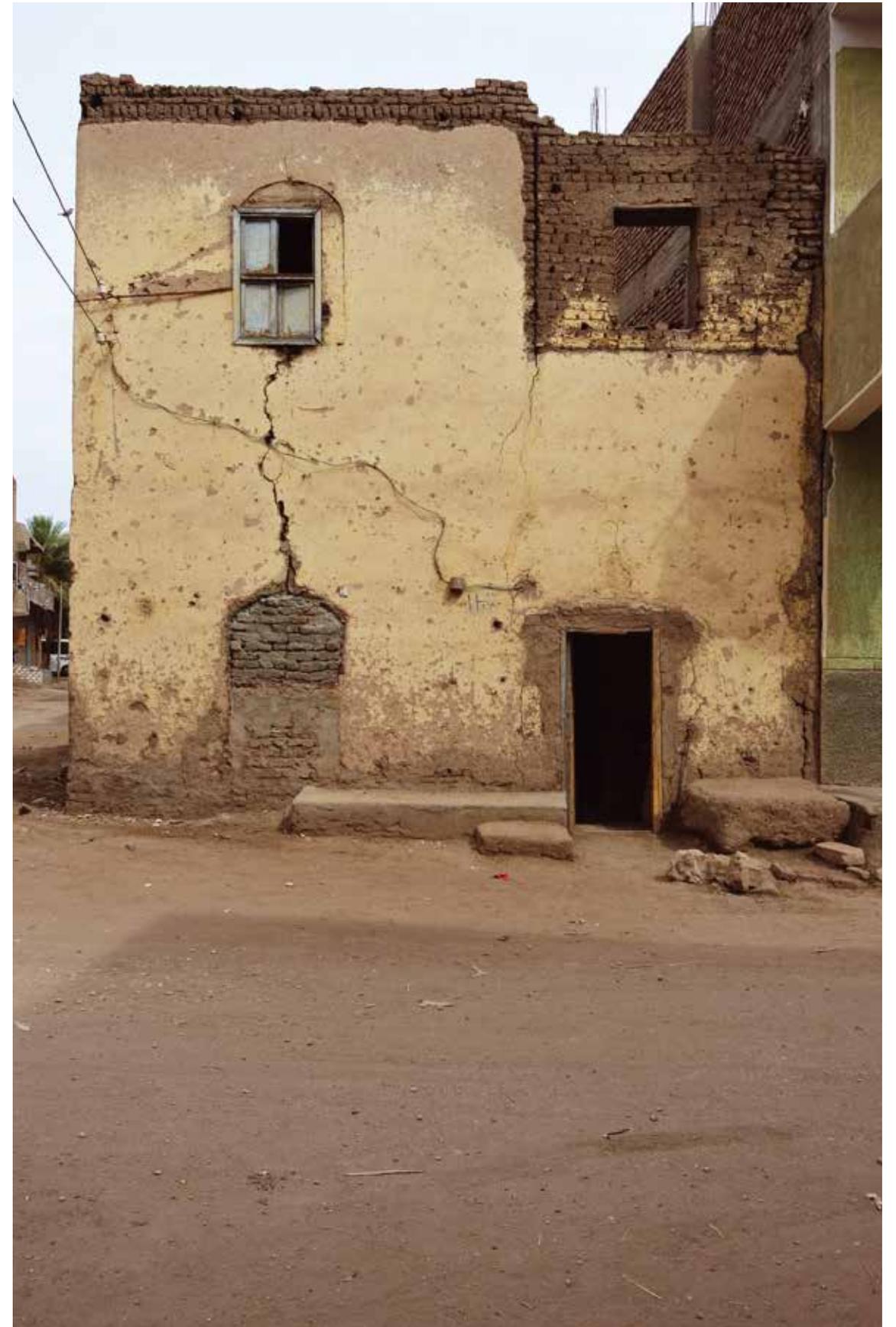
Houses of Old Gournia, the Hill of Qurnet Murai. Photo: Zs. Vasáros, 2012.



One of the original floorplan versions of a residential block in New Gourna. Source: RBSCCL, AUC



Floorplan and façade of the same block. Drawing by the HFSM based on data captured in 2016-2018.



Façade of one of the houses. Photo: Zs. Vasáros, 2016.



Details of the Theatre. Photo: Zs. Vasáros, 2015.

The untouched Theatre

Szilvia Odry

When we travelled to New Gurna to survey the houses designed by Hassan Fathy - the Theatre, the Khan, the Mosque and his field house - in March 2015, there was a thing that we couldn't overlook:

The building of the Theatre is untouched.

The forecourt of the Theatre is messy and neglected. The basement stretching under the auditorium is full of cobwebs and dead rats, and even though the front door was locked, we could enter the building without a key, still:

The Theatre is untouched.

The main façade looks intact and still from the street, however, from the inside it foreshadows life-threatening danger, since the wall of the main façade is separated from the rest of the structure by cracks of the width of a span. The stage and the background rooms seem to be on the brink of collapse, still:

The Theatre is untouched.

It might be considered interesting or odd that in this settlement built in the 1940s, which was focused on agriculture and religion, a theatre is designed for the community which was being relocated from Old Gurna and whose members had been making a living of looting the ancient tombs.

Hassan Fathy was aiming to design liveable and acceptable living spaces and to improve the living conditions of the poor of the country. It was a truly noble initiative to design the settlement with the involvement of its future residents so that it can evolve according to their needs. Fathy's goal was not only providing the necessary residential functions, he wanted to integrate higher culture in their lives, so he designed an exhibition centre and a theatre where instead of looting artefacts, residents could create works of art and copies of artefacts and sell them. His aim was to make cultural entertainment equally important to the functions of the school and the mosque.

This idea was not only theoretical, it is represented in the masterplan of the village, too. Fathy positioned the Theatre in the close vicinity of the Mosque, which is the evident centre of the settlement, thus making it the part of everyday social life. Still, community events such as weddings and funeral feasts are kept in the street. The result:

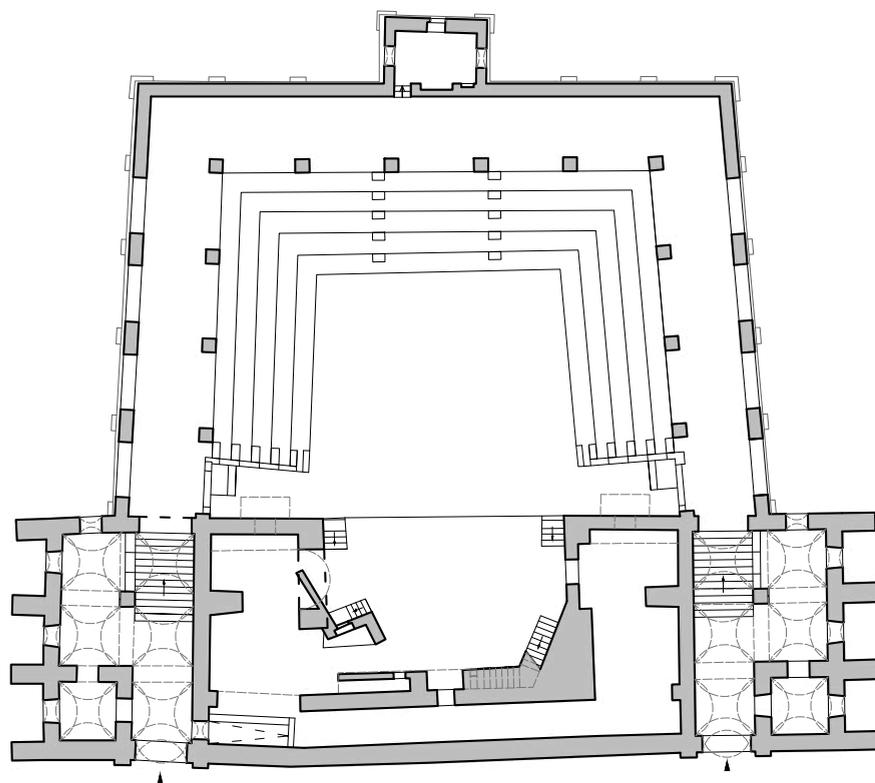
The Theatre is untouched.

Thus the question comes to mind: why was the Theatre created? The intent is clear: a utopian, urban idea took shape in the scale of the small community. The designer wanted to provide space for the cultural heritage - dance, music - that seemed to be disappearing, being taken over by radio and television. Thus he reaches back to a time and space - ancient Greek and Elizabethan - that is not part of Egypt fundamentally, and he shapes the function and the form according to his own principles. He uses mudbrick, the only available material, and for decoration he places simple mashrabiyyas made of brick and wood in the openings. He covers the floors with stone.

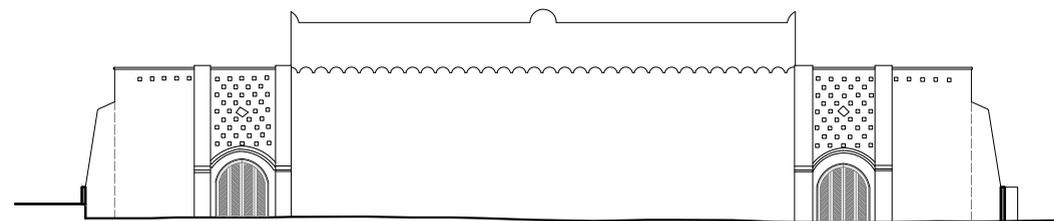
As a result, an uncovered, trapezoidal building takes shape, the three sides of which are surrounded by a stepped theatron for 500 guests, which is accessible from the surrounding gallery. In front of this is the stage of two parts – the skene, which is served by the background rooms, hidden behind the wall of the main façade; and the proskenion in front of it. These are embracing the orchestra, where the scenes could take place. The architectural concept corresponds exactly to the principles according to which a traditional theatre is designed; still, it is not working.

The theoretical wall, which stretches between the viewer and the performer standing on the stage, the hierarchy is not embodied in the rural environment, therefore the building is de facto unusable, it remains untouched. It cannot function in the setting where the community events, may those be celebrations or grief, are lived through as equals.

Nevertheless, the noble intention of the designer is unquestionable, which took shape in a unique and modern architectural piece.



FLOORPLAN - ENTRANCE LEVEL



EASTERN FACADE

Survey drawings of the Theatre. Drawing by the HFSM, based on data captured in 2015-2016.



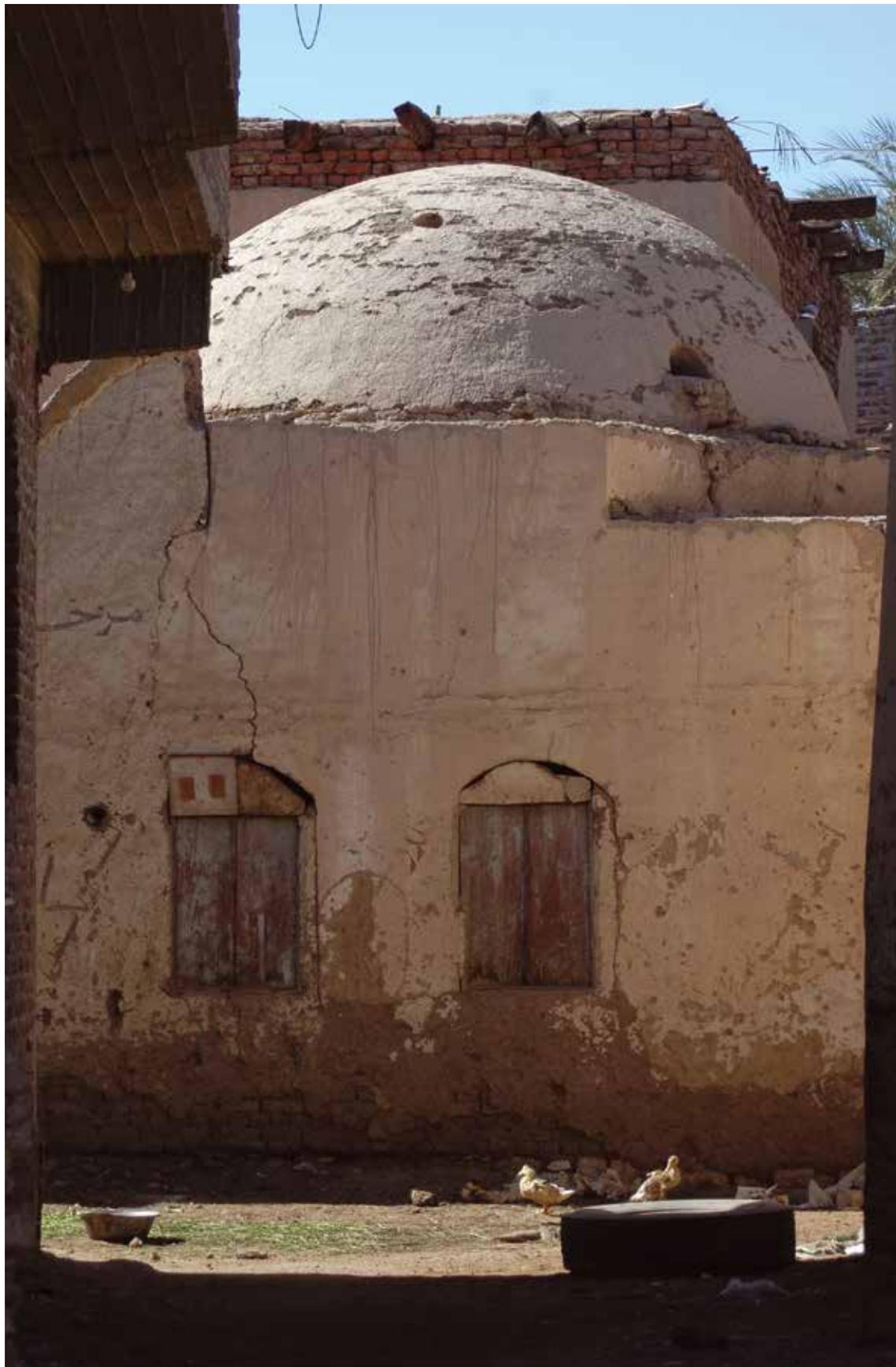
The stage. Source: RBSCL, AUC



The stage. Photo: Zs. Vasáros, 2015.



Main façade of the Theatre. Photo by Zs. Vasáros, 2015.



Façade of the Abd el-Rassoul House. Photo: Zs. Vasáros, 2015.

The last detached residential house in New Gourná

V. Friderika Tibai, Laura Veres

The use of mudbrick as a structural material drew attention to the work of Hassan Fathy in the mid-1940s and he soon got the opportunity to try his innovative concept on a larger scale. In search of a cost-efficient solution for relocating the residents of Old Gourná located nearby the Valley of the Nobles, the design of the new village was more than an architectural mission for the architect.

The plan of the village was a prototype attempting to provide a general solution for the housing problems of the poor Egyptian peasants. While only a fraction of the known plans were realized, the main square with its public buildings and the traces of the residential buildings of the Model Village reveal the once envisioned atmosphere of the site.

The residents of New Gourná would have had to transition to a completely different way of life according to the urban concept and the spatial design of each house. The houses in Fathy's plans were diverse in scale, composition and organization, however, they had the same character: in theory, Fathy used the original houses of Old Gourná as a model to create new spaces that would perfectly fit the lifestyle of their owners and would become a real home. The irregular plan aimed to be diverse and original, maintaining a continuous visual interest and contradicting the attitude of the era, according to which poverty deserves boring, repetitive patterns. This intense attention to the residents' personal needs was unique at this time, especially compared to the Western attitude of architects who followed strict, impersonal principles and rules in the name of functionalism in design.

Despite that only a fifth of the original plans were realized, the finished houses found their new owners, although the exact process of relocation is still unclear. However, the majority of the people of Gourná retained their original way of life and home until the final destruction of Old Gourná in 2008.

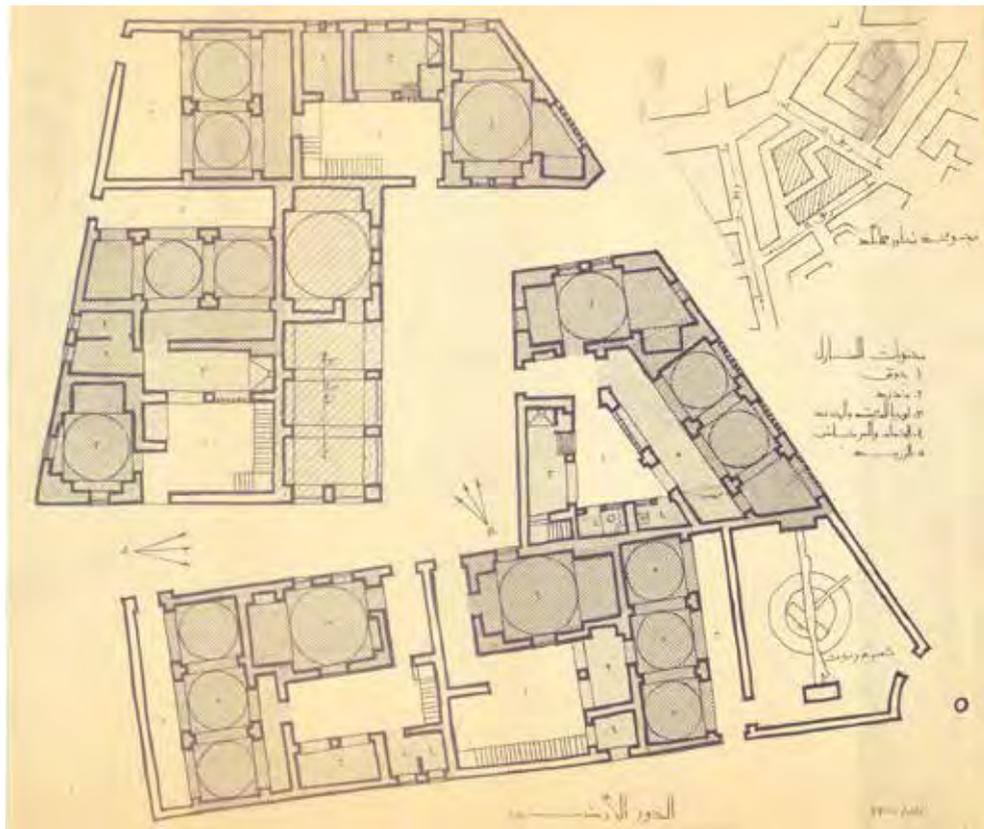
The last partially demolished and partially deserted detached residential house located in the close proximity of the main square is known as Ahmed Abd el-Rassoul's house. Once it served as a multi-family residence, today only a part of it is occupied. We attempted to document it in 2016. Apart from the collapsed dome and some minor alterations, walled-up openings and extensions, the original, planned state of the house remained. Fortunately, photos from multiple angles were taken during the construction of this building which are available in archives, so we know what it looked like right after construction. Using these and the data collected on-site it will be possible to create a theoretical reconstruction of the full block. The height dimensions, the shapes, domes and sensitive ornaments made of mudbricks completely separate the house from the jungle of concrete and brick which tightly grew around it, even though the original street system is still there. While some parts of the building had already been in ruins and abandoned by the time we started the survey, in the inhabited section we could glimpse the modest means of life of the multiple generations living there.

The overall picture of several renovations, the vibrant and colourful crumbling plaster on the walls, the puritan furniture show how theoretical and idealist Fathy's ideas actually were. The flat roof built in the place of the demolished dome and the added rooms on the upper floor prove the antipathy of residents felt against the domed structures, for they were mostly associated with tombs and cenotaphs and made the vertical expansion of the house impossible. The abandoned parts of the house have probably been vacant for some time, they function as storages or stockrooms.

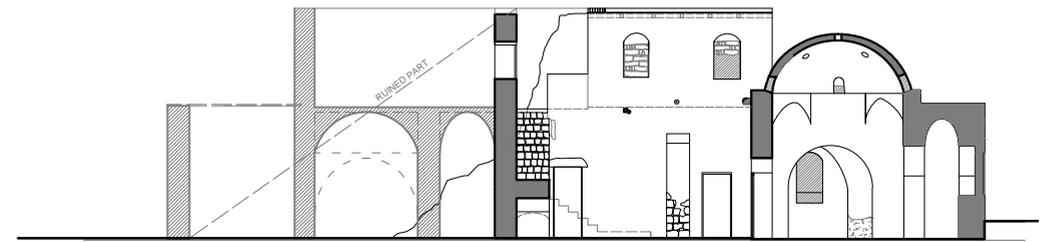
His contemporaries already criticised Fathy for a romantic and utopian vision and for the lack of understanding of the reality and the traditional way of *fellahin* life. The aspirations and sometimes the utterly unrealistic ideas of the architect, however (i.e. the built environment has the power to change the way of thinking, way of life and to motivate people) do not lessen his achievement.

Decades passed by and generations grew up who have understood and recognized Fathy's ambitions and the significance of his results. However, researchers and publications still owe a more critical attitude to his work.

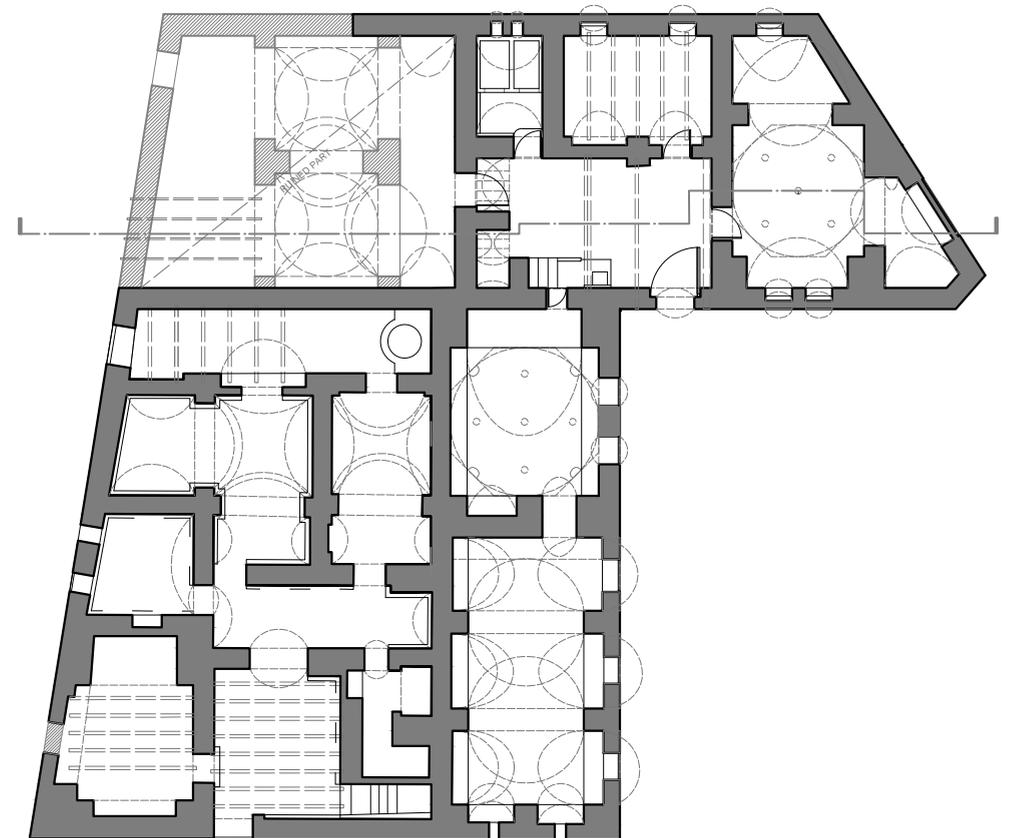
The question is that despite all the arguments and criticism against his work, why is this idealistic vision of the world in which Fathy planned and thought is still so captivating for the people of today? It is easy to admit that it makes us honour the rich folk culture that is still present today, the strong traditions and the value of the natural world that makes our existence possible. It is essential to take into consideration how Fathy's architecture could be a preconception for the problems of today's architecture which needs cost-effective, environmentally responsible solutions, and last but not least aesthetic, modern answers.



Original design of the Abd el-Rassoul House and its neighbour. Source: RBSCL, AUC



SECTION



FLOORPLAN



Floorplan and section, drawn based on data captured in 2016-2017. Drawing by V. F. Tibai, L. Veres



Façade of the house. Photo: Zs. Vasáros, 2015.



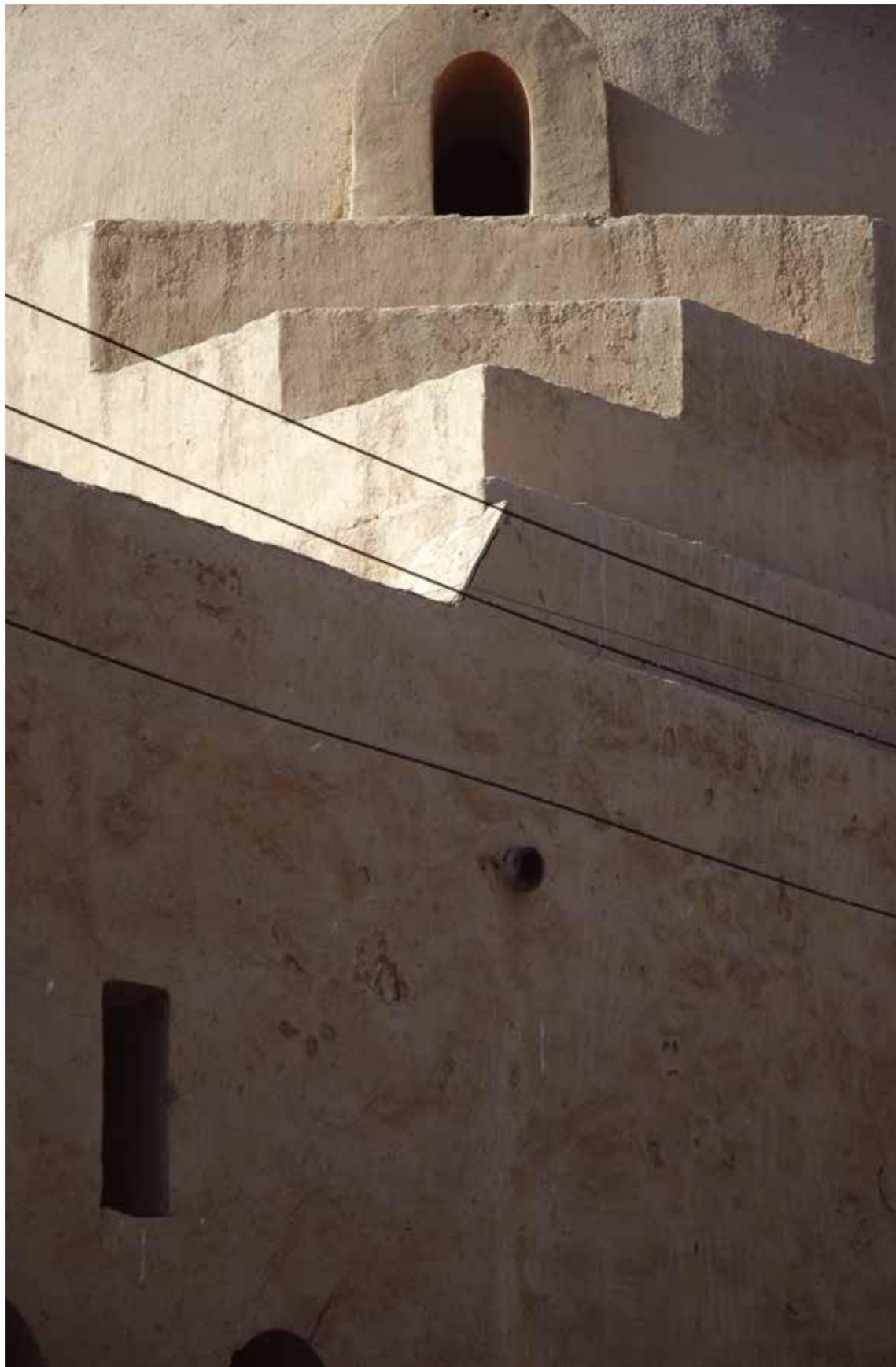
One of the living rooms of the Abd el-Rassoul house. Photo: Zs. Vasáros, 2016.



Façade of the house. Photo: Zs. Vasáros, 2016.



The abandoned room of the house. Photo: Zs. Vasáros, 2016.



The main dome of the Mosque. Photo: Zs. Vasáros, 2015.

The Mosque

Gergely Sági

The mosque of New Gourna is an outstanding and fascinating piece of Hassan Fathy's oeuvre for several reasons. The unique complexity of functions highlighted, embraced and followed by architectural versatility makes the building an extraordinary piece. In order to understand the significance of Fathy's mosque, we cannot ignore that it was constructed to be the spiritual and religious centre of the newly established settlement. Therefore, it is not just an ordinary chamber for prayer, it is a community space of a complex, deeply religious society.

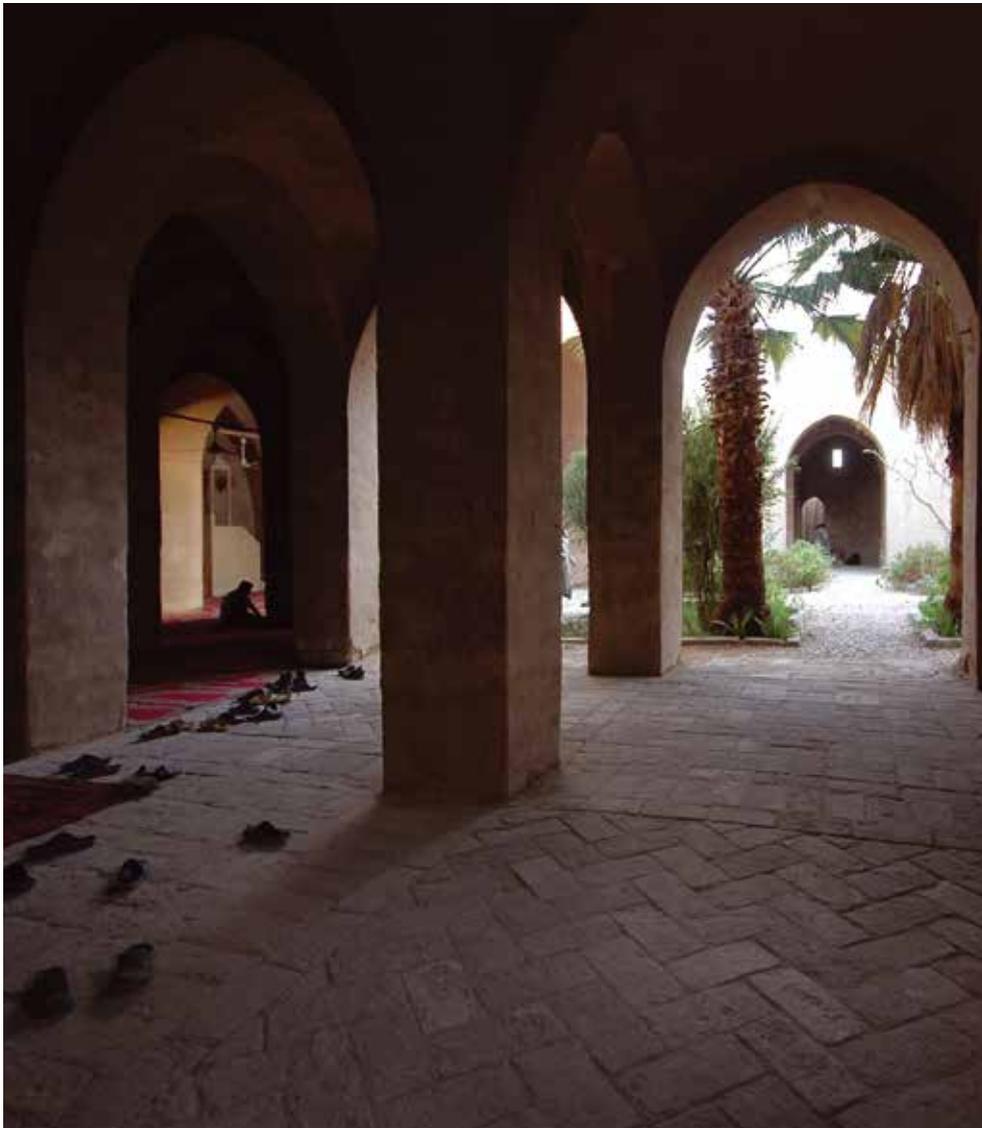
Probably this is the reason for the odd parallel which connects the floor plan and the structure of the mosque to the Iranian or Usbek mosque complexes with madrasah more than to the forms that usually appear in North Africa and the eastern basin of the Mediterranean. We enter the mosque through two courtyards and the closed, almost monolithic appearance of the façade dissolves as we get further inside; the smaller courtyard right by the entrance blocks out the world, while the central one is an organic part of the Mosque surrounded by colonnades on its sides. The introverted character of the outer mass does not appear here, the entire space-structure is an airy and refreshing place. The central space is covered by a large dome which opens up to the inner garden through an iwan; the covered and uncovered spaces blend into each other. These rooms and the premises behind, just like the arcades lining up on the opposite façade which provide space for community activities are only divided by columns. The fashion in which Fathy designed the opening of the building, the dramatic composition of the arrival and the organization of the central functional units show an interesting parallel to the much vaster Great Mosque and the Imam Mosque in Isfahan, Iran.

It is a fact though, that Fathy could have had much more easily accessible examples as models for his mosque of Gourna: one could be the Al-Azhar Mosque also in Cairo, the outstanding architectural achievement of the Fatimid Era, or the Ibn Tulun Mosque in Cairo. These examples were more available for the architect while working on the plans of the settlement than the buildings in Iran. Moreover, it is known he had a great interest in the Fatimid architectural heritage, the effect of which appears in his architectural and design toolset. Further and more profound research is needed to find out whether the puzzling similarities are results of a very clever and creative adaptation of the more available examples, or we can assume that the knowledge gained through extensive reading and research inspired Fathy to use the distant examples while designing the Mosque of New Gourna.

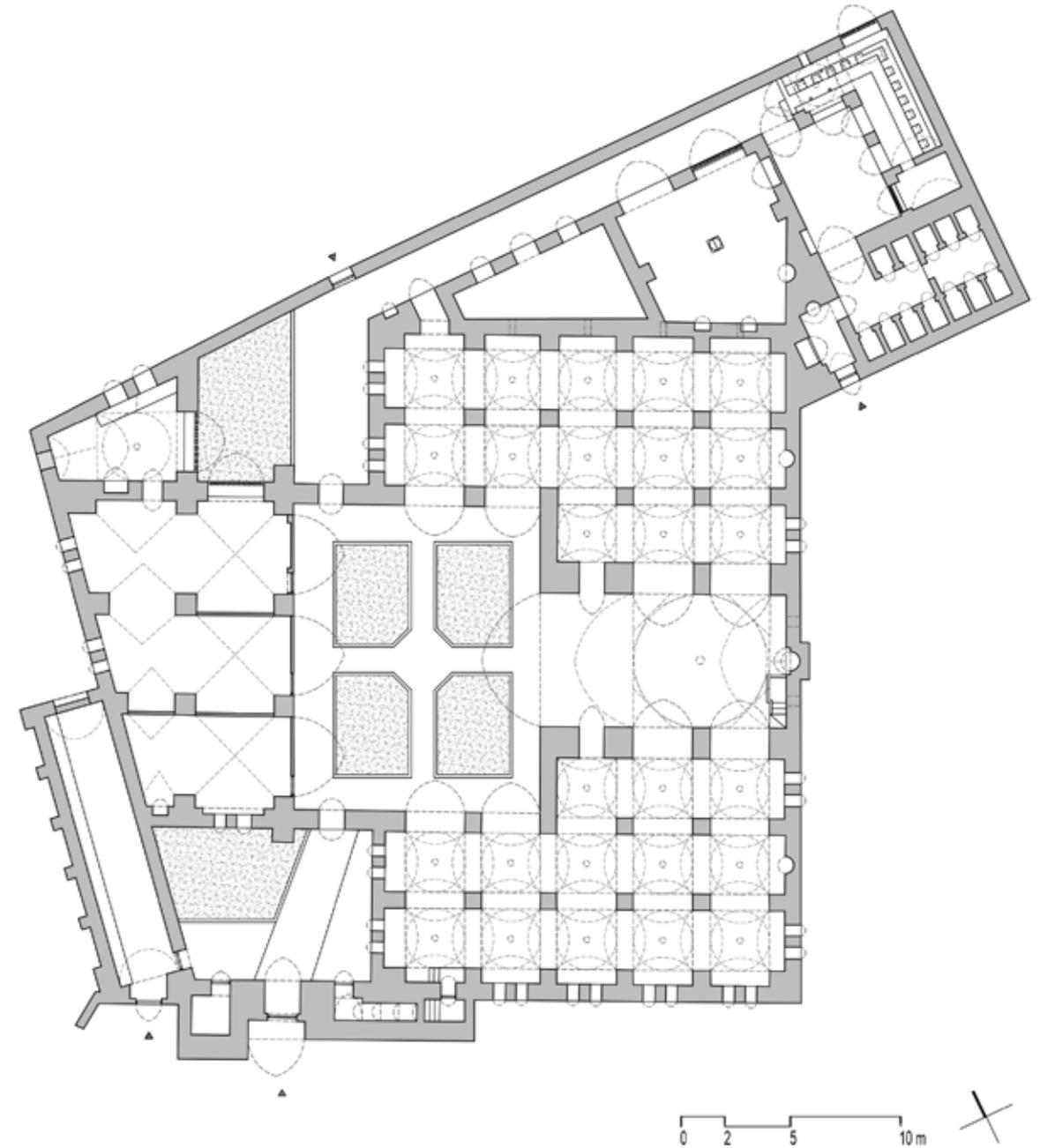
It is of no importance if the above-described similarities to the Iranian mosques are proven, or are only accidental features, Fathy unquestionably created a true community space that must have been unusual in Upper Egypt, let alone to the people of Gourná.

The functional diversity in the mosque is paired with architectural diversity: a variety of spatial situations are well-organized by the uniform mass and the application of just a few architectural tools; the irregularities of the floor plan caused by the 'designed organic' texture of the settlement further enhance the consciously created abundance of forms.

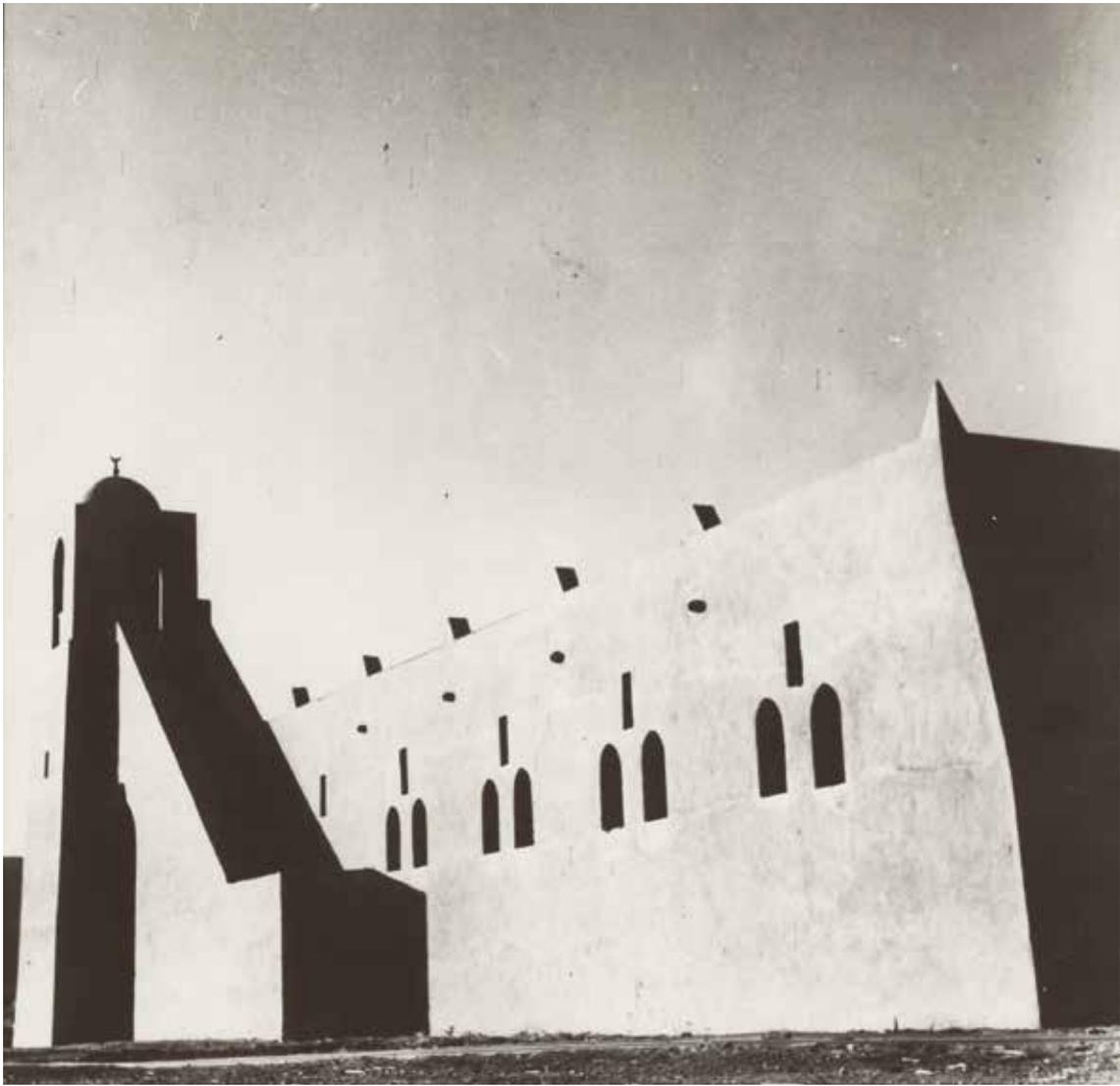
The complexity of both the theoretical and formal level of the building and the conscious and consequent architectural shaping make the mosque of New Gourná a peerless and significant piece.



The prayer hall of the Mosque, with the courtyard in the back. Photo: Zs. Vasáros, 2015.



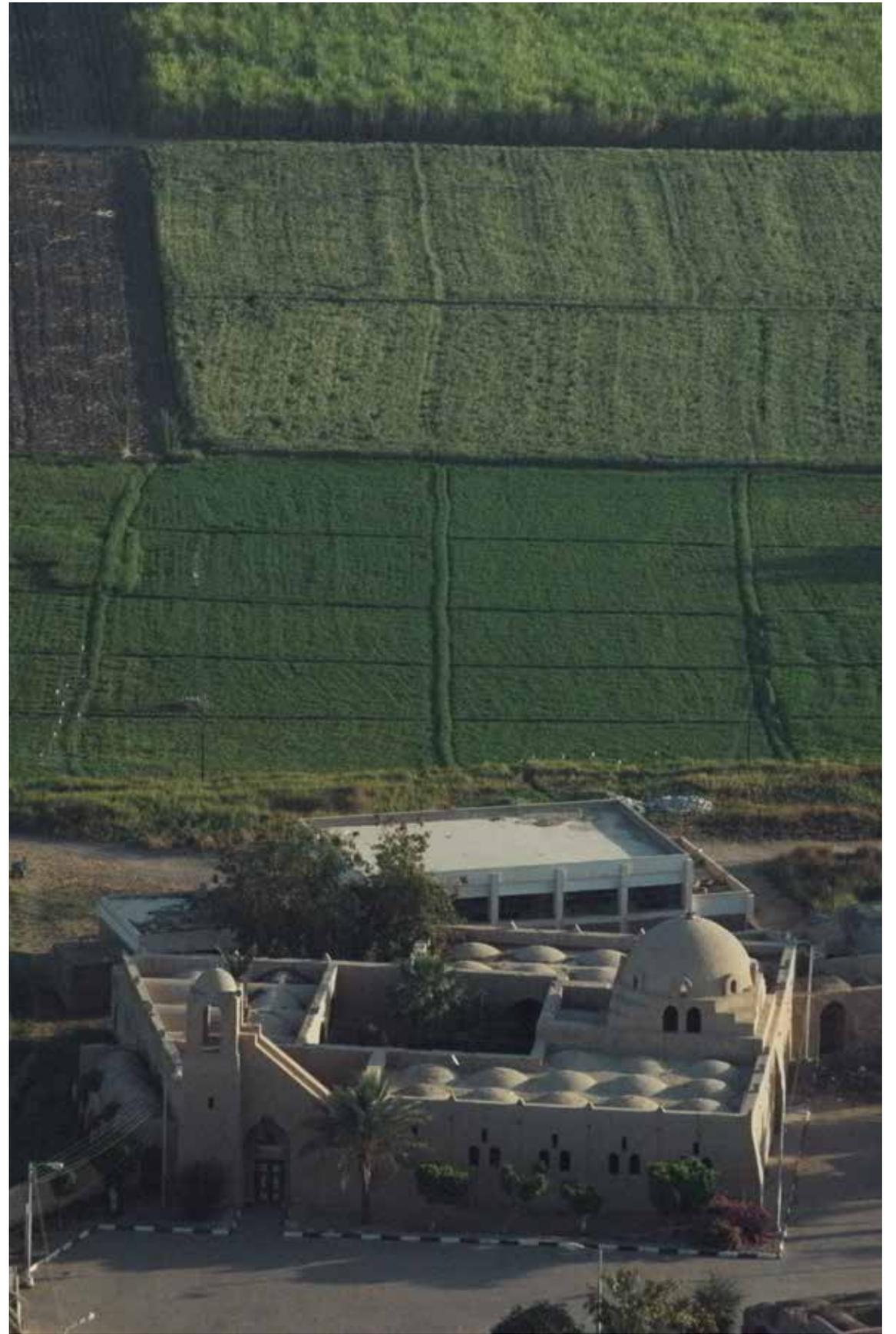
The floorplan of the Mosque, drawn based on data captured in 2015-2016. Drawing by: G. Sági



Main façade of the Mosque. Source: RBSCl, AUC



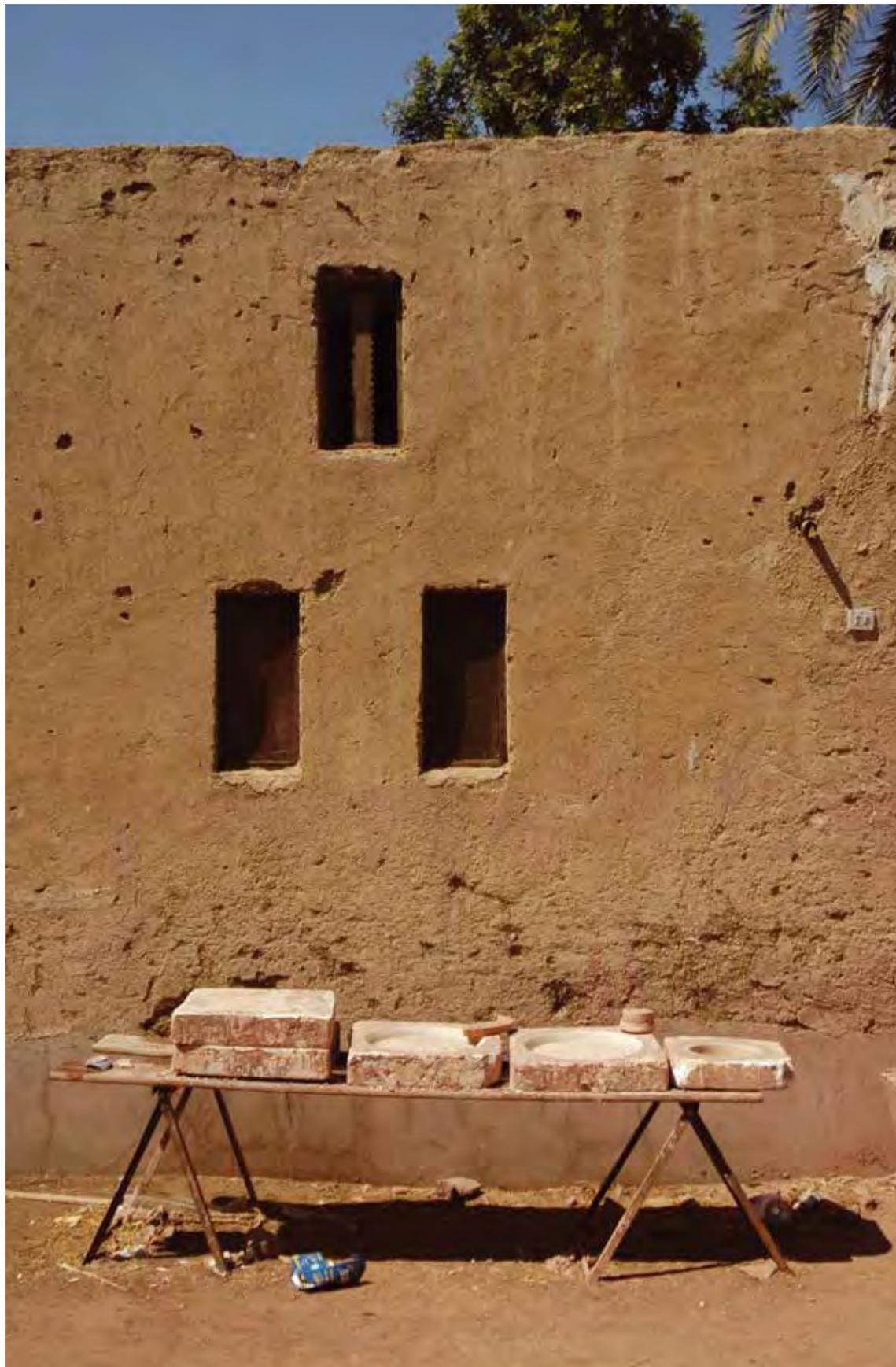
The façade design by Hassan Fathy. Source: RBSCl, AUC



Aerial view of the Mosque. Photo: Zs. Vasáros, 2011.



The main dome of the Mosque. Photo: Zs. Vasáros, 2015.



Façade of the Factory. Photo: Zs. Vasáros, 2015.

GARAGOUS

The Pottery and Ceramics Factory

Kata Kovács

A long, bumpy ride on a hot day, sugar cane plantations stretching endlessly, countless people, the shadufs working; and the beautiful landscape. On our way towards the little village of Garagous, which is about 30 km to the north from Luxor, just before Qena, a boy on a motorcycle passes us by selling bright-coloured cotton candy, then a tractor decorated to the point of collapse plods in front of us. We pass by trucks waiting to be loaded with sugar cane, which have long replaced the caravans of camels. Finally, in perhaps the densest part of the village, our destination suddenly appears ahead of us: one of Hassan Fathy's cultural architectural action areas.

In the middle of the 20th century, the life of the village of approximately 25,000 inhabitants significantly changed after the arrival of a French monk, Étienne de Montgolfier and his fellows. The development brought about and supported by the Jesuits significantly improved the living conditions, the livelihood and prospects of the local people in a short time.¹

The French monks of the order quickly built the necessary infrastructure for the local people and commissioned one of the very popular architects at that time dealing with social architecture seriously, Hassan Fathy to prepare the plans.

The work of the order officially started in 1945, with the construction of the local school and church and was followed by the hospital three years later. The ceramics manufactory, also part of the complex was built later, in 1954, and four years after it was extended by a wool carpet manufacture workshop, where women were taught by a monk to support the local handicraft.

At this time about sixty men and women were employed at the handicraft centre, the benefits of the hospital were also generally appreciated. More than two hundred children could attend the school and an extra fifty girls could participate in sewing and needlework classes. These numbers, compared to the circumstances and opportunities of the time were exceptional, especially considering the current situation of the village.

The community had developed very quickly and spectacularly until the introduction of local taxes, which significantly hampered the production of local craftsmen and soon made work impossible despite the government's effort to promote rural development. The local crafts gradually disappeared, we only found the modest remains of craftsmanship during our architectural surveys in March 2015, 2016 and 2017.

The preparation method of the clay products, as our attendant told us, has not changed much in the past years. The hand-made items are practical, rather than artistic, which is the purpose of the manufactory. They are producing several types of pottery, such as mugs, bowls, smaller and bigger domestic sets, decorations, vases and statuettes, and the fireproof *brams* in which the traditional dish *moussaka* is prepared.

¹ See SAMAAAN 1989, 61-62.

The architectural analysis of the buildings of the Pottery and Ceramics Factory reveals that the designed and the built versions are very much different from each other.

According to the plans that we know from publications, the rooms should have been built in a functional order one after the other, following the route of the clay during the production process. On the plans the rooms for receiving the raw material, checking, washing, preparing and drying it, then the rooms for shaping, burning and storing the ceramics were designed to be in different buildings. However, a few rooms were left out from the realised building, and it is now a group of buildings, which raise questions regarding the usability and function. In some articles,² there are clear references to the controversy between Fathy and his clients, that emerged because of deviating from the plans during construction. As a confirmation of these arguments and the result of the obvious functional deficiency of the buildings, the kiln was built later, in the courtyard.

Fathy's architectural toolset can be well observed on the buildings of the manufactory. The well-known cupolas that have become his signature and the unique ornaments give the complex a balanced, almost sacred atmosphere. The function of the space does not justify this complex, high-quality shaping, these extra elements are apparently unused.

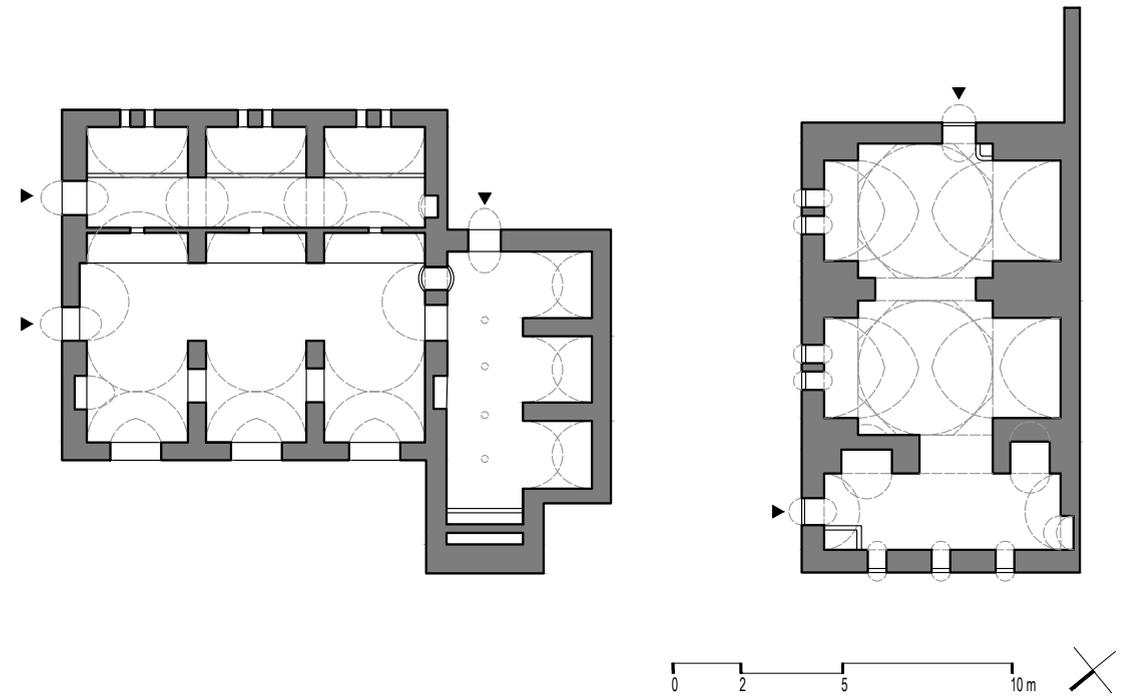
The fans in the middle of the space of the cupolas and the dirty storage areas clearly indicate that functionalism was dominated by the design of forms in the plans, and a number of compromises can be noticed in the operation of the realised buildings.

However, the fact that the manufactory has been operating in these buildings for over fifty years by 2017 according to its original function is an exceptional and valuable example for the sustainability of vernacular architecture.

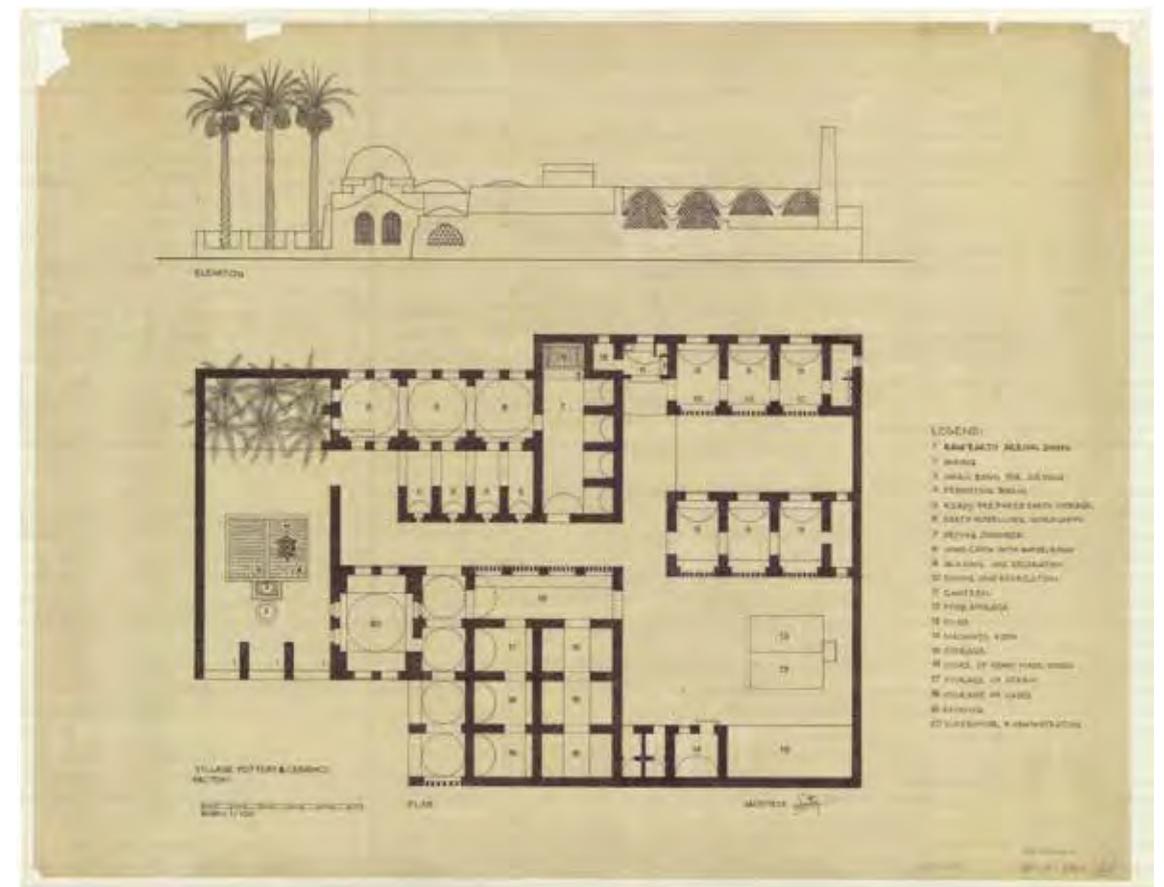


Façades of the pottery factory. Photo: Zs. Vasáros, 2015.

2 See STEELE 1988, 79; STEELE 1997, 93; also RICHARDS - SERAGELDIN - RASTDORFER 1985, 163.



Floorplan of the pottery factory (left) and painting workshop (right), drawn based on data captured in 2015-2016. Drawing by K. Kovács



Original version of the floorplan. Source: RBSCCL, AUC



The painting workshop. Photo: Zs. Vasáros, 2015.





Entrance of a classroom in the school of Garagous. Photo: Zs. Vasáros, 2017.

The School

Anikó Somlai

While working on the design of the pottery manufactory, Fathy was commissioned by the Jesuit Mission in Garagous to work on another project, the development of the architectural concept of a cultural and health centre. Fathy envisioned this complex as a sort of enclave within the city: his dream was to create a calm and nurturing space which literally keeps out the mundane city life with high walls.

According to the original plan, the three well-distinguishable wings are formed by four buildings: a small church with an adjoining school building, a separate crafts school and a dispensary. The idea of the crafts school fits well into the bigger picture which Fathy imagined regarding the future of Garagous. He believed turning Garagous into a crafts centre meant a new beginning for its inhabitants: they could escape poverty by acquiring the knowledge to become professional craftsmen, and with this living knowledge circulating, these traditional professions would not fall into oblivion.

This kind of open attitude is also reflected in the spatial organization of the building complex. In contrast to being almost entirely closed from the outside, the inside is light and spacious thanks to the central courtyard. The wings are well-separated from each other and slightly differ in scale, which makes them easily recognizable for the children. To avoid monotony, this relatively big complex is further divided with open corridors, smaller side yards and halls.

Unfortunately, this grand idea did not entirely become reality. According to photos from 1950 (the time of the recently finished construction) the complex was already built differently from what was planned. The spacious inner courtyard which was originally the centre piece of the whole plan was cut in half by a new individual wing. Furthermore, as a result of a new addition, the crafts school became a separate unit, independent from the other buildings, turning its back to the church. The connection between the church and the crafts school hence remained just a narrow alley. Due to this visual separation from the rest of the complex, one could easily have the impression that the crafts school was not even part of the design, but simply built in close proximity of the church.

Nearly seventy years later the complex still stands and functions, although the redesigning of the original special structure resulted in the altered purpose of the building complex. The dispensary operates as a nursery, and while the church and the adjoining school kept their original functions, there are no indicators of a crafts school running. What we discovered were the traces of an ordinary elementary school; multiplication tables and maps on the walls. The monotony of the army of uniform brown tables were only disrupted by the incidental cartoon paper figures hanging from the ceiling, along with colourful ribbons and tinsel garlands. In many cases, large wardrobes standing in the back of the classroom, piled with carton boxes on the top were the only storage opportunities, even though Fathy carefully designed storage and teacher's rooms, these supplementary functions were either not built or used differently.

However, the existing building still reflects to some degree Fathy's original ideas of a school: the classrooms are oriented towards the inner courtyard, thereby providing a calm environment for learning. The inner courtyard, even though it became much smaller still represents an important architectural element. Discovering the building room by room, it became obvious to us that the complex is still functioning and full of life. However, it is also clear that the grand idea of the original plans was just partially realized in the actual building.



Rooftop of the school. Photo: Zs. Vasáros, 2017.



Façade ornaments. Photo: Zs. Vasáros, 2017.



Classroom interior. Photo: Zs. Vasáros, 2017.



The courtyard between the school and the Nursery in Garagous. Photo: Zs. Vasáros, 2017.



Detail of the façade of the Nursery. Photo: Zs. Vasáros, 2017.

The Nursery

Anna Lukács

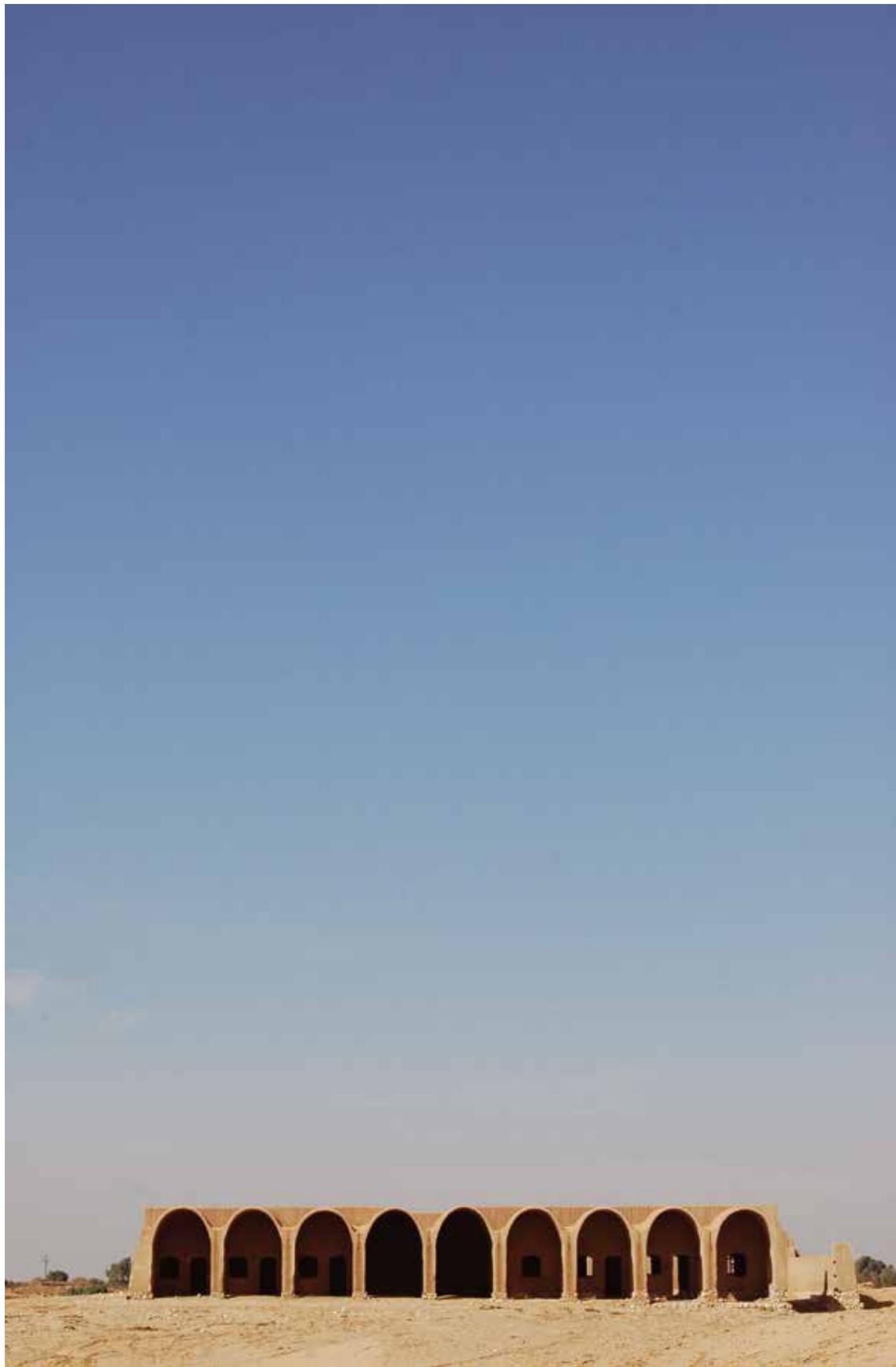
Documenting the church-school-nursery complex in Garagous was an important part of our survey work in Egypt. The school has the typical architectural character of the Egyptian schools: a large and spacious inner courtyard surrounded by corridors shaded by canopy roofs, from where the classrooms open. The nursery school is located right behind the school. This building also has a courtyard, but not as spacious and well detailed as the one that belongs to the school. The two functions are not separated, they have one shared bathroom for the children and the main courtyard is also used by both institutions from time to time. With this setup the school and the nursery school become one unit, which also means the younger and older children are not separated from each other.

The courtyard of the nursery is a tight space with concrete floor, and has only a few outdoor toys that the children can use. There are no shaded areas, canopy roofs or trees which could provide some protection against the sun, therefore the children do not spend much time here. Both the exterior and interior of the building is currently crumbling down, but the children's drawings and handmade decorations, the coloured walls and furniture make the nursery school look friendly and full of life. The structure of the room is different from the ones we consider standard in Hungary. Four smaller units opening from one another create the space for the nursery. This structure is based on functionality, and the attributes often used in Hassan Fathy's architecture appear all over the rooms; vaults and domes, or arches which appear between the connecting units and as window frames. After stepping in through the main entrance we find ourselves in the first unit of the space which is the arrival area. The second and the third units open from the first one, these two are the main spaces where the pre-school education, workshops and playing hours take place. This part of the room is the widest and gets the most emphasis. The fourth unit is connected to these two units and works as a storage space but is not separated from the other functions, therefore the children can enter freely, which is not particularly beneficial for the safety. Since the nursery school does not have its own bathroom, only one washbasin is placed in the storage space. The two main units in the middle have big, arched openings which let enough natural light through into the interior. We cannot say the same about the arrival area and the storage space. These units have small openings and as a result are relatively dark spaces.

From the whole school-church-nursery complex, this is the only room which provides a place for the nursery school. Its capacity is cca. 40 children, which are roughly two groups of children in a Hungarian nursery school. The small space and the layout of the nursery made me, the outside observer wonder: where do the children sleep in the afternoon, how are they using the toilets which are further away in the complex? Based on what we saw, it is obvious that the inner workings of a nursery school in Egypt is different from a European one.



Interior of the Nursery. Photo: Zs. Vasáros, 2017.



Façade of the Village Workshop in New Baris. Photo: Zs. Vasáros, 2015.

NEW BARIS

A vision for the desert

Dóra Dávid

In 2015 and 2016 we were studying the remains of Fathy's Model Village project which was designed, imagined in detail and then failed for several reasons over the years. Day-to-day, we were faced with how far removed from reality was the lifestyle he imagined for this special, traditional-modern settlement. We discovered the signs of building parts demolished and then patched up, irreversible damages at every step; there are only a few public buildings and the skeletons of residential houses left from the designer's vision. The idea of New Gourná has been consumed by the changes that were mostly unforeseeable at the time of its conception, and the higher quality built environment of the Model Village could not last.

These were our experiences when we began our journey into the desert at dawn in March in 2015, and then again in 2016. We travelled for several hours to reach the dreary oasis and the centre of New Baris, which lies far from the settlements in the endless desert landscape.¹

Getting to know Fathy's creation in the desert was an extraordinary experience. The desert-coloured buildings come into view slowly while walking towards them uphill; one does not see walls and openings, rather shadows, edges, curvy black holes in the landscape. Perfect silence surrounds. The experience here does not include colours, music, scents, noise, nothing that surrounds us in the settlements of the Valley. There is only the view, and the montage of three colours: that of the desert, the sky and the shadows and the alien, invasive noise of our steps and breathing.

We never approached a complex this carefully during our work in Egypt. Walking between the deserted buildings, we came to an unexpected recognition: these buildings that were abandoned in 1967 and had never really been finished are in the best condition from all of Fathy's work in Upper Egypt, perhaps even his entire oeuvre. Even though we generally see that for a building to last long constant use and maintenance is necessary, in this case, interestingly, being abandoned and unused conserved the houses.

The complex that was only partially finished would have been the centre of a new settlement, with large-scale public buildings such as the khan and the market. The houses of traditional functions were equipped with the ingenious structural solutions of traditional Arabic architecture: the 'malqaf', which is the gravity-based ventilation and cooling system; the clever siting, careful shading and also the thick mudbrick walls that are reflected in the mass of the houses. All these were positioned in an orthogonal grid, constructed by modern principles, in a consistent functional order, whereas the generosity embodied in the design created beautiful spaces and squares opening up from one another. Hassan Fathy probably made most of the structural possibilities of the mudbrick in this project²: he did not use anything else in these surprisingly large buildings, which, after fifty years, still stand undamaged.

¹ About New Baris in general see RICHARDS - SERAGELDIN - RASTDORFER 1985, 90-94, 126-139; STEELE 1988, 92-95; STEELE 1997, 131-145; SERAGELDIN 2007, 82-83; BERTINI 2018d, 220-259; also EL-WAKIL 2018b, 226-229.

² The research topic is based on the field research of the Hassan Fathy Survey Mission in Egypt of the Budapest University of Technology and Economics, Faculty of Architecture. This research "Supported by the ÚNKP-19-3 New National Excellence Program of the Ministry for Innovation and Technology" (D. Dóra)

Based on our experience and research so far, we can conclude that even though Fathy was designing for the people, in many cases he was guided by utopian views. This special, delicate modern-vernacular toolset of his urban design projects is probably best represented in New Baris. This abandoned complex stands as a memorial for this aesthetic and architectural experiment in the desert today.



Façade of the courtyard of the Market in New Baris. Photo: Zs. Vasáros, 2015.



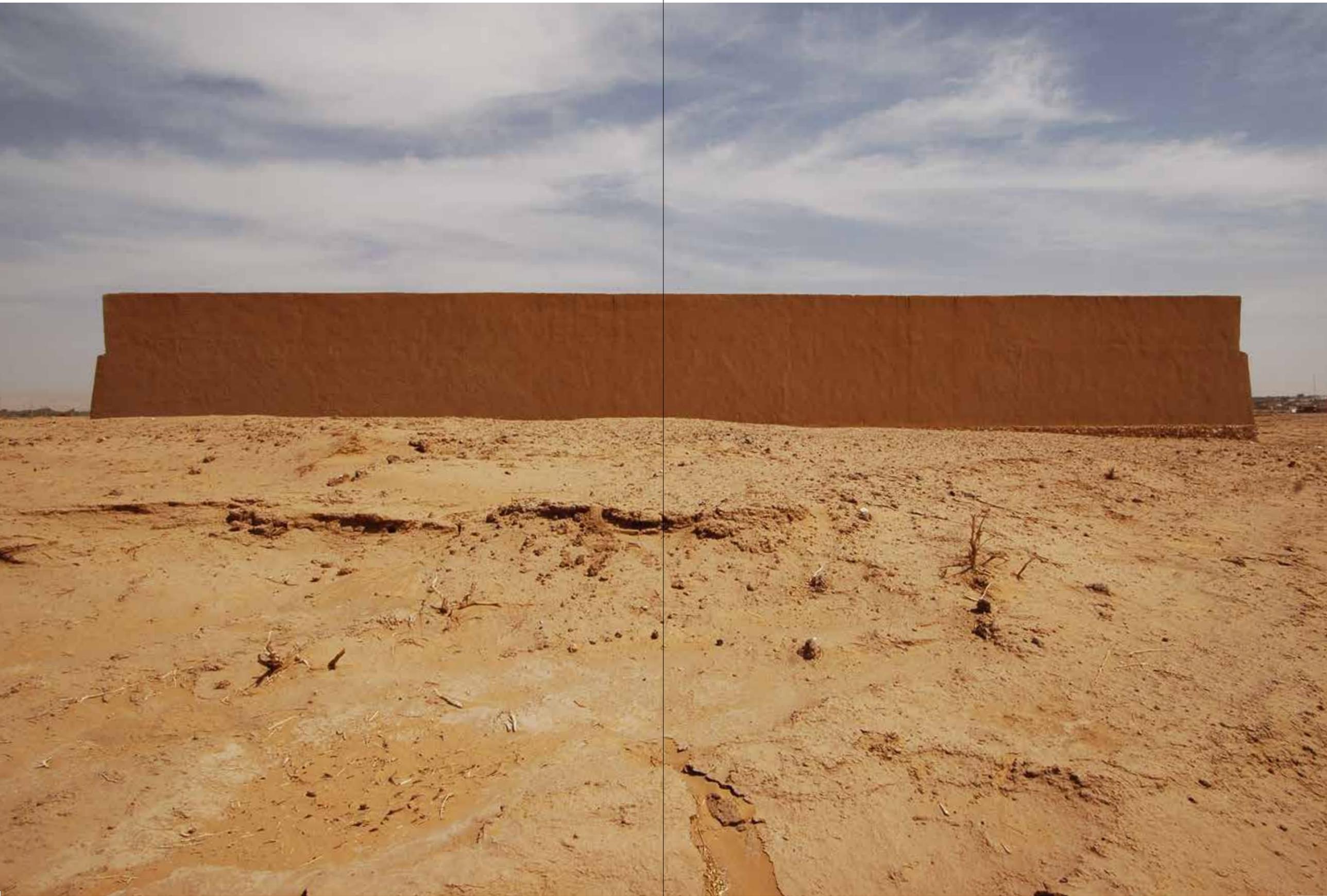
Unfinished building in New Baris. Photo: Zs. Vasáros, 2015.



Interior of the Market in New Baris. Photo: Zs. Vasáros, 2015.



Unfinished arches of the Khan in New Baris. Photo: Zs. Vasáros, 2015.

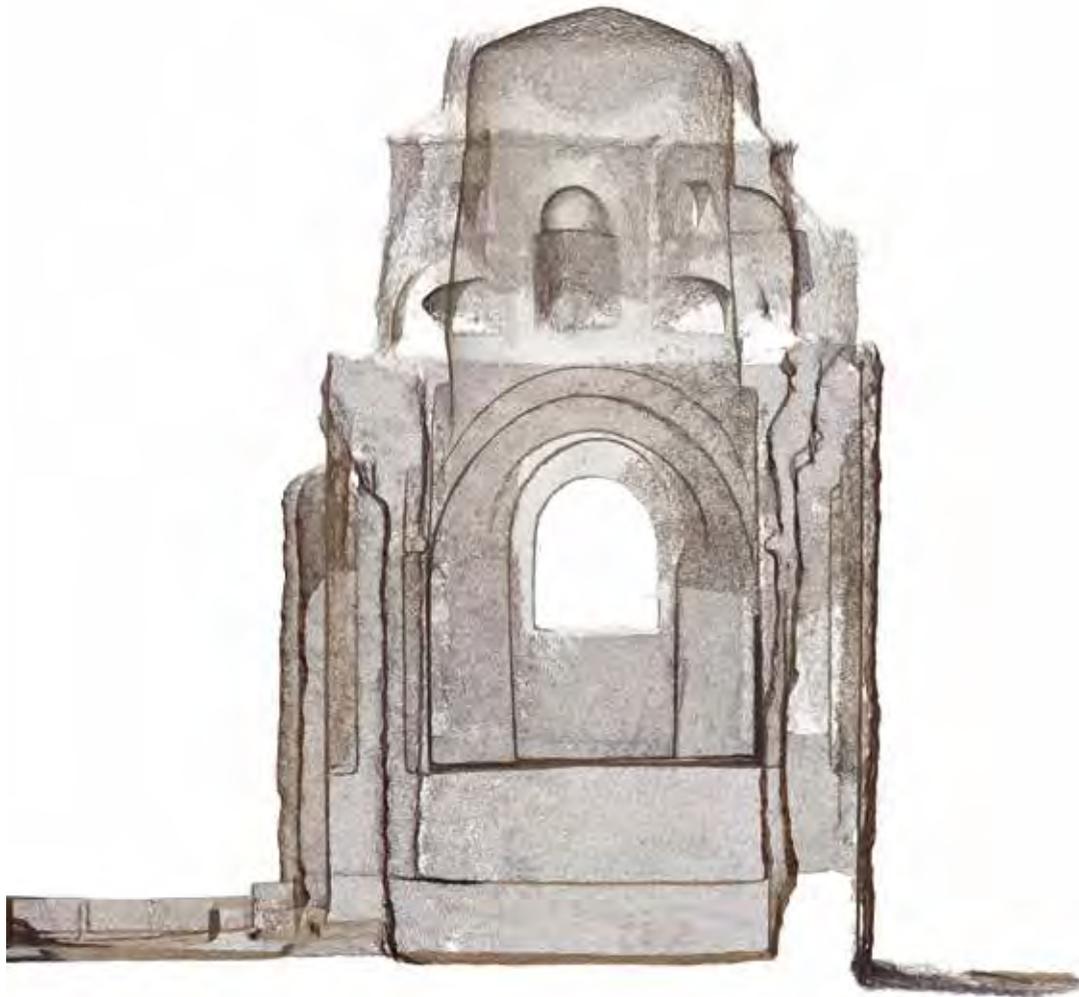


The rear façade of the Village Workshop. Photo: Zs. Vasáros, 2015.

SURVEY METHODS AND TECHNIQUES

Digital technology in heritage protection

Klára Lovas



*Section of a mausoleum in the Fatimid Cemetery, Asswan, generated by SfM.
Model by B. Miklós, based on data captured in 2017.*

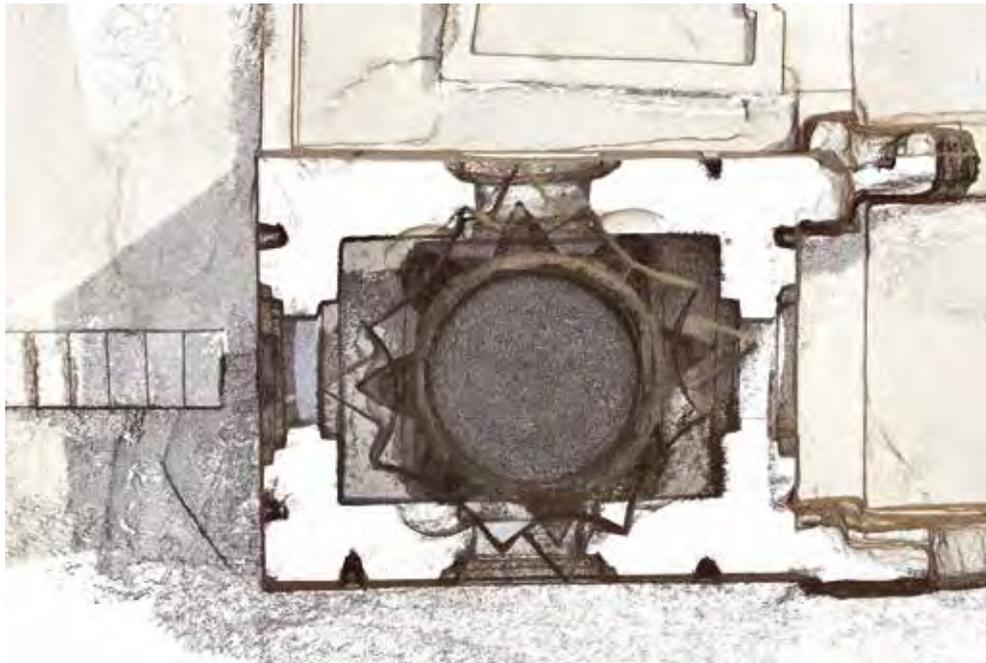
Structure from Motion (SfM) is a collective term for technologies that help with the reconstruction of three-dimensional objects, spaces and surfaces based on two-dimensional image sequences. Even though the technology has been available for years, it only began to spread recently as present-day midrange computers have evolved to be able to run compute-intensive SfM software. One of the advantages of its application is that we only need a digital camera and a tape measure or laser distance measurer at the site. We take overlapping image sequences from different angles from which the software calculates the 3D model. Then we scale the finished models using several specific measurements. The models may directly be used for further measurements and analysis or, with the help of other software, for the making of visuals and illustrations.

Our research team was introduced to the technology shortly before the 2016 season, which we comprehensively used for the first time at the Stoppelaëre House. In parallel with the traditional manual survey we made models of the parts where the previous technique was impeded, such as the interior vaults and cupolas. In comparison with the limited number of points from a manual survey, the digital model maps the entire surface of a cupola and any of its points can be measured later on for the necessary architectural drawings. SfM proved to be a significant help in the survey of the surrounding terrain as well, since we could not have successfully covered such a large area in such a short time using a different method.

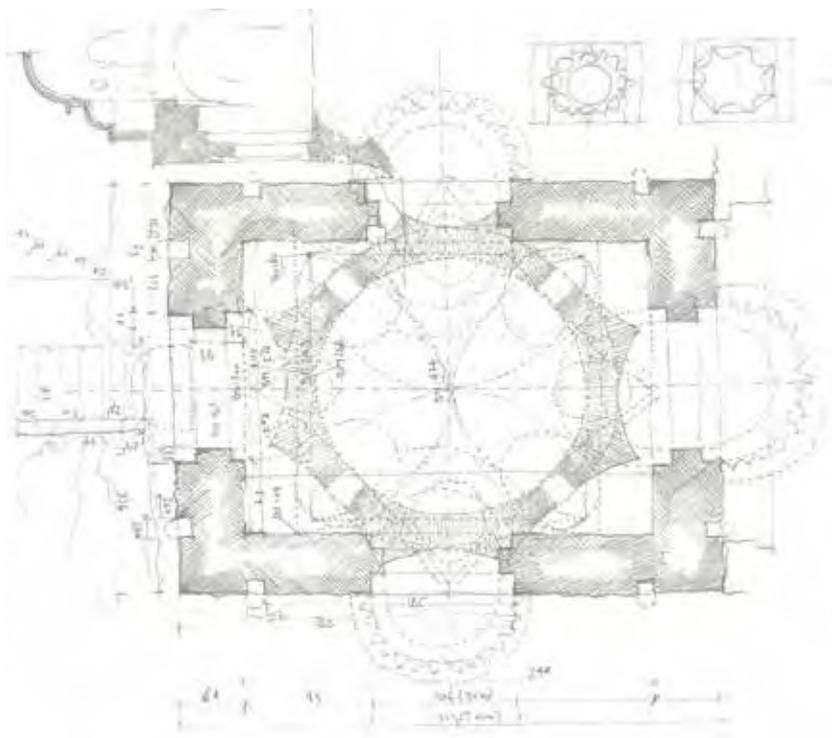
From then on we have been using SfM in other projects for several differently scaled surveys, thus gaining experience both in data collection and in processing. By becoming thoroughly familiar with the Agisoft PhotoScan software used by our team, we were able to create more accurate models from the image sequences from Luxor than before. (This shows another advantage of the method: through the development of the software algorithm and with an extended user experience previously documented sequences may also provide new data.)

During the data processing of the Stoppelaëre House we used the models of the interior to check the accuracy of the manual survey and complement its deficiencies. As at the time of the survey we were still getting familiar with the technique we did not have preliminary notions of the actual precision of the models, so it came as a positive surprise that the models and the manual survey only differ in centimetres. For example, in the case of the vaults, we used sections acquired from the models to specify the springing lines which are hard to define at the site due to the roughness of the surfaces. Our assumption that Fathy's cupolas in the house are spherical caps has proven to be correct as well. We primarily used the photos of the exterior and the hillside for the virtual reconstruction visuals: the renders of supposed former states of the building were inserted onto the terrain from the SfM model. The alterations of the house throughout the decades are easier to follow with the help of the illustrations from a similar viewpoint.

In the era of smartphones and affordable digital cameras the technology of SfM is a fast and efficient tool for architectural surveys, especially so as the level of detail of the models can be adjusted to fit the needs and aims. The method allows us to virtually take the object of our research with us while accurately depicting the actual state of the heritage site. It is worth considering as an essential tool for the architectural surveyor.



Floorplan of a mausoleum in the Fatimid Cemetery in Aswan, generated by SfM. Model by B. Miklós, based on data captured in 2017.



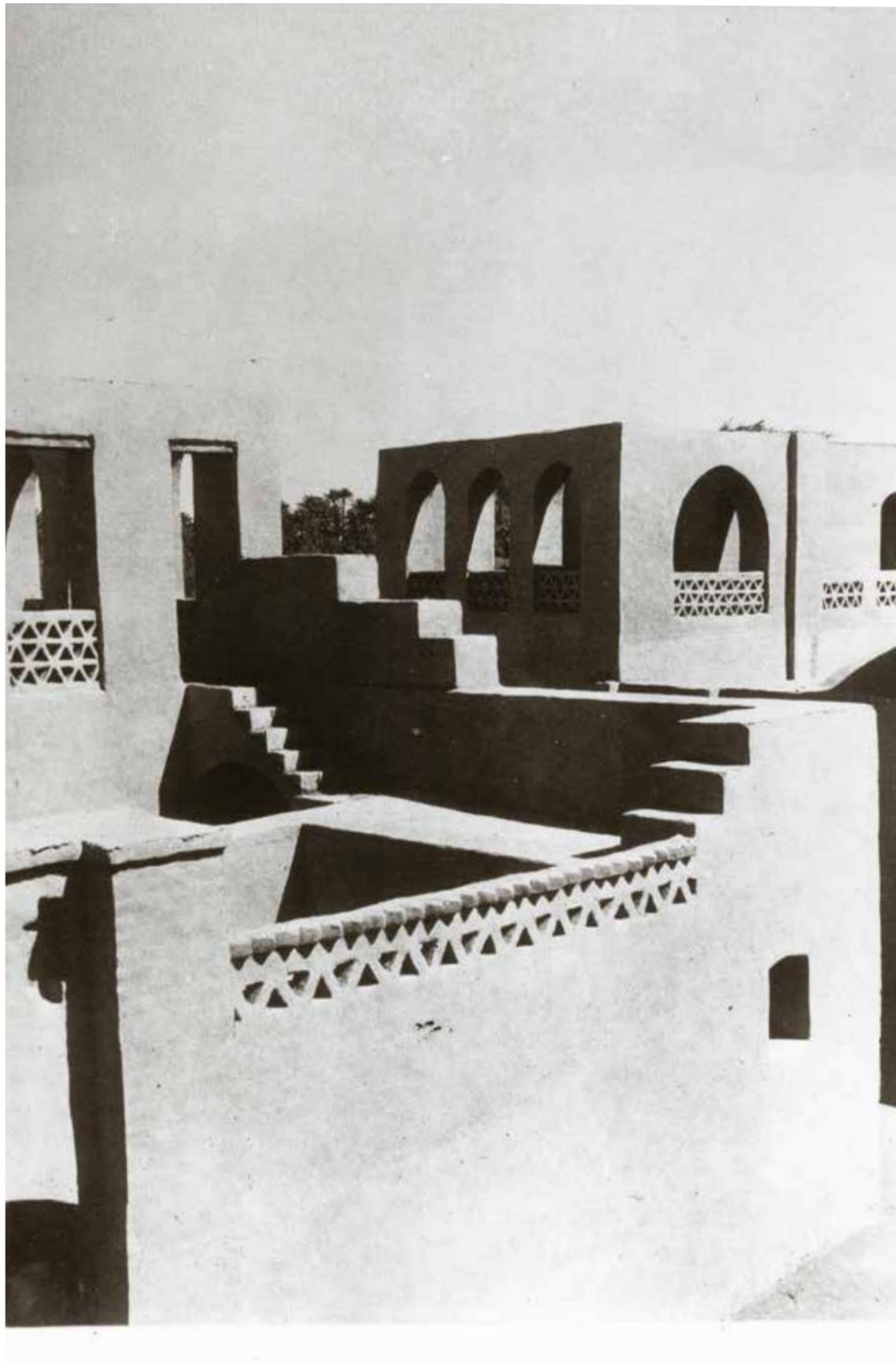
Traditional survey of the same mausoleum. Drawing by Zs. Vasáros, 2017.



Virtual reconstruction of the Stoppelaëre house. The terrain was created by SfM, based on data captured in 2016. Visualization by G. Nagy.



Section of the living room of the Stoppelaëre house, created by SfM, based on data captured in 2016. Rendering by K. Lovas



Houses in New Gurna. Source: RBSCl, AUC

THEORETICAL STUDIES

Fathy's Architecture

Eszter Nagy

Hassan Fathy's name sounds familiar all around the world, not just to architects. Several articles, studies, monographs elaborate Fathy's significance even decades after his death. His importance is unquestionable; his commitment to the Egyptian culture and architecture and his social approach are still exemplary.

Fathy stated that architecture is for the people. He wanted to improve the standard of living by creating healthier and better living conditions. He also believed in cultural authenticity and he rejected globalized architecture, thus his interest shifted to vernacular architecture.

He emphasized the architectural receptivity, the responsive approach to the needs of the people, the importance of culture and its irreplaceability. Although he was open to the new techniques and innovations, he rejected the globalization of Western culture. He believed it deprived humans of their individuality, even though in his early career he designed in the modern style as well.

Fathy believed in a design process which took the local forms, needs, habits into account so that even the use of a non-local idea could not disrupt the unity of the harmony.

During his career he discarded the philosophy and the technical base of modernism, his architectural values were based in the local techniques and habits since his main interest was improving the housing of the poor.

Regarding affordable housing, he defined principles of design that remained solid throughout his career. Using traditional materials and techniques, the Islamic traditions, the low-cost structures and being so sensitive about climatic conditions were fresh and innovative new concepts in the international architectural scene of the time.

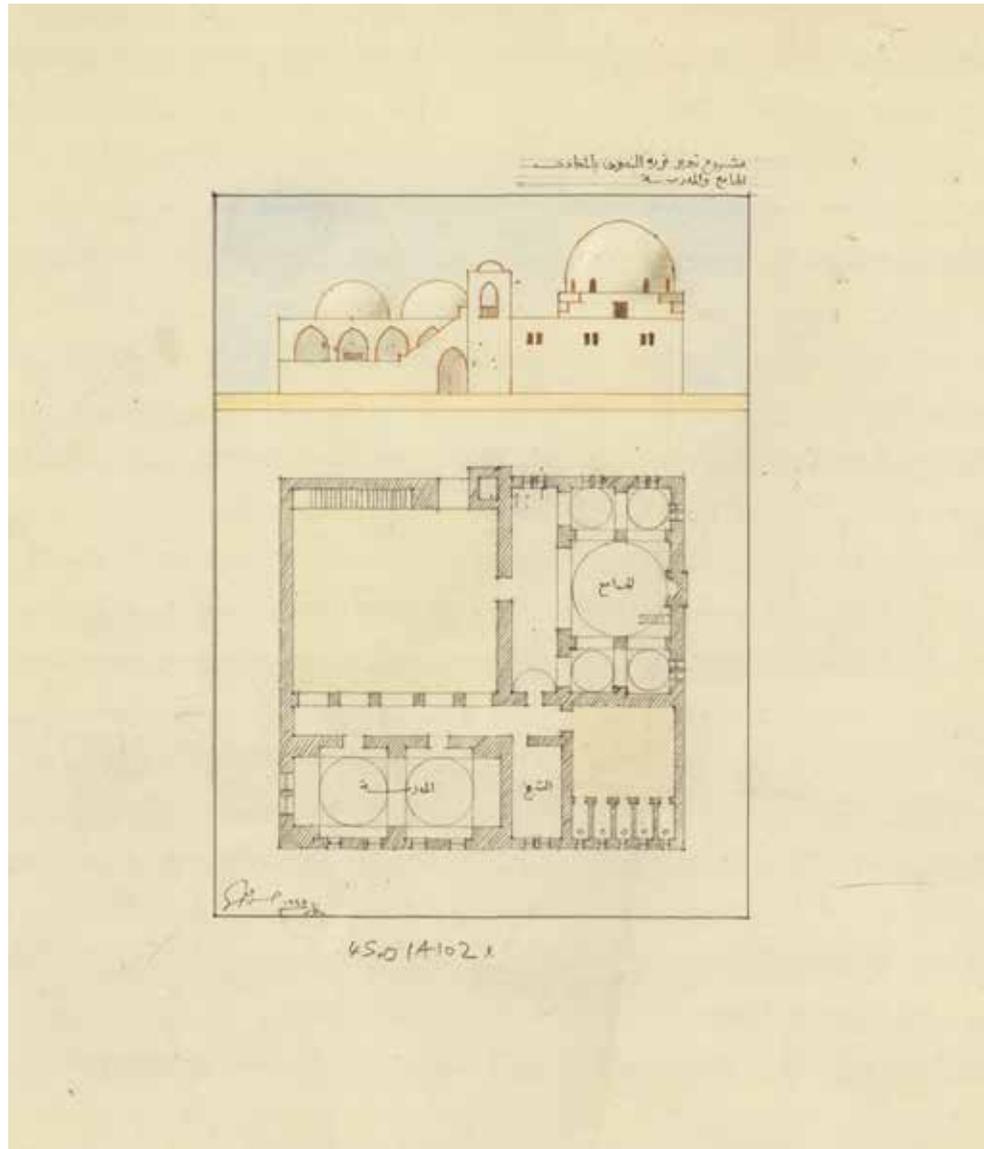
The process of finding an affordable, traditional technique for building led him to the study of the architectural possibilities of earth construction. The excellent physical and thermal properties and authenticity of the mudbrick structures in the hot Egyptian climate also inspired him. The main problem was that it was unsuitable to create horizontal slabs. The materials which required a serious technical base, like steel or reinforced concrete were not considered because of their high costs, non-local character and bad thermal properties. Wood as a natural material could have solved the problem, however, its rarity in the area made it expensive. These circumstances forced Fathy to look for a different solution.

Fathy started his research into the issue with the help of engineers from Cairo. This research led him to the Nubian traditions through a coincidence when he visited Upper-Egypt. Traditional Nubian architecture uses vaults built from the mudbrick structures instead of a flat slab.

The use of the material was questionable. Fathy placed great emphasis on studying the possibilities of adobe, but he missed a factor that made people displeased with their new homes later, as was the case in New Gurna. In this part of Upper-Egypt the symbolic content of the dome is different, people from Gurna associated this shape with funerary architecture.

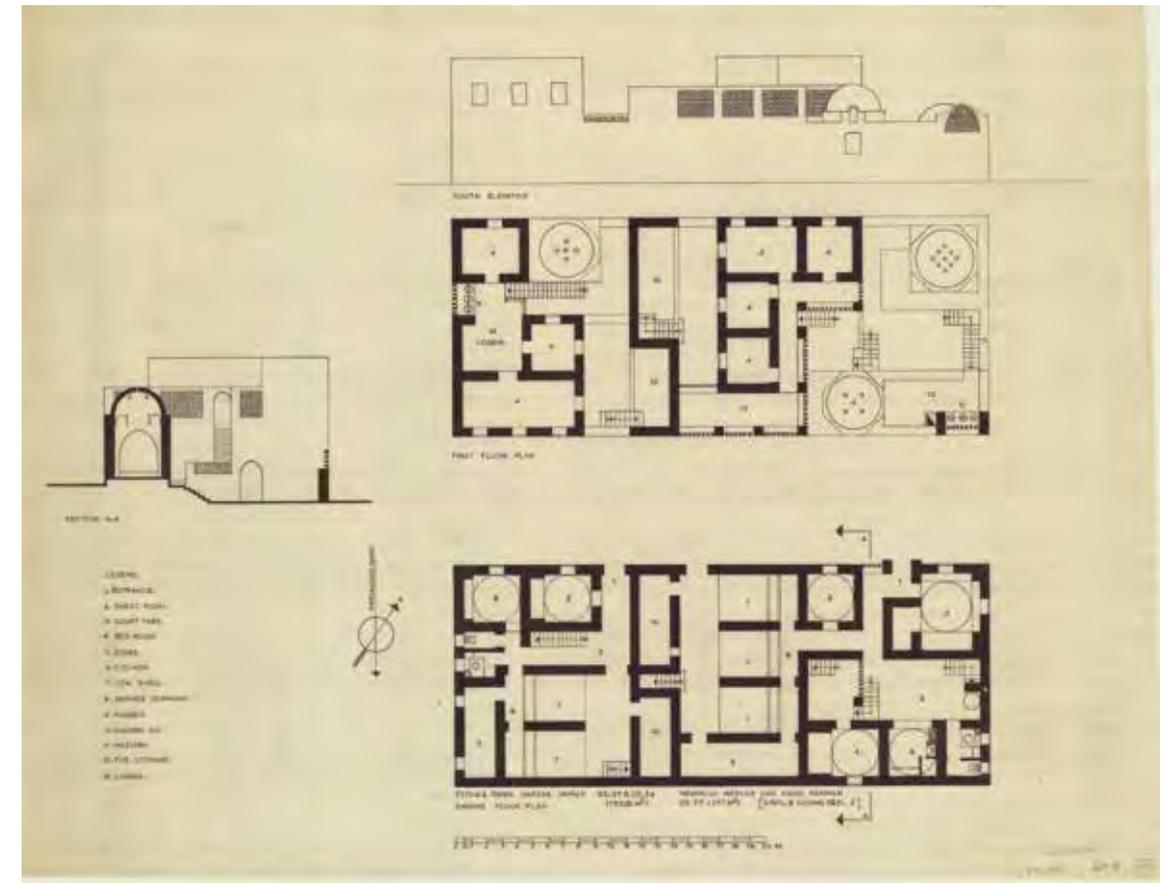
We can probably understand that Fathy's theoretical legacy is much richer than the realised examples the best if we take a look around the New Gurna of today.

It is clear even after only a few minutes spent in the village that the 'vernacular' architecture of the 21st century, which is spreading without the control of an architect, designer or investor, looks much like Le Corbusier's Domino-house with its reinforced concrete pillars. Bare rebar give the constant feeling of incompleteness, to provide opportunity for vertical growth, as more space is required for the dynamically growing population and for the Egyptian family model. The following proverb has spread among the locals: „Rebuilding in Hassan Fathy's spirit but not with his adobe bricks.”¹

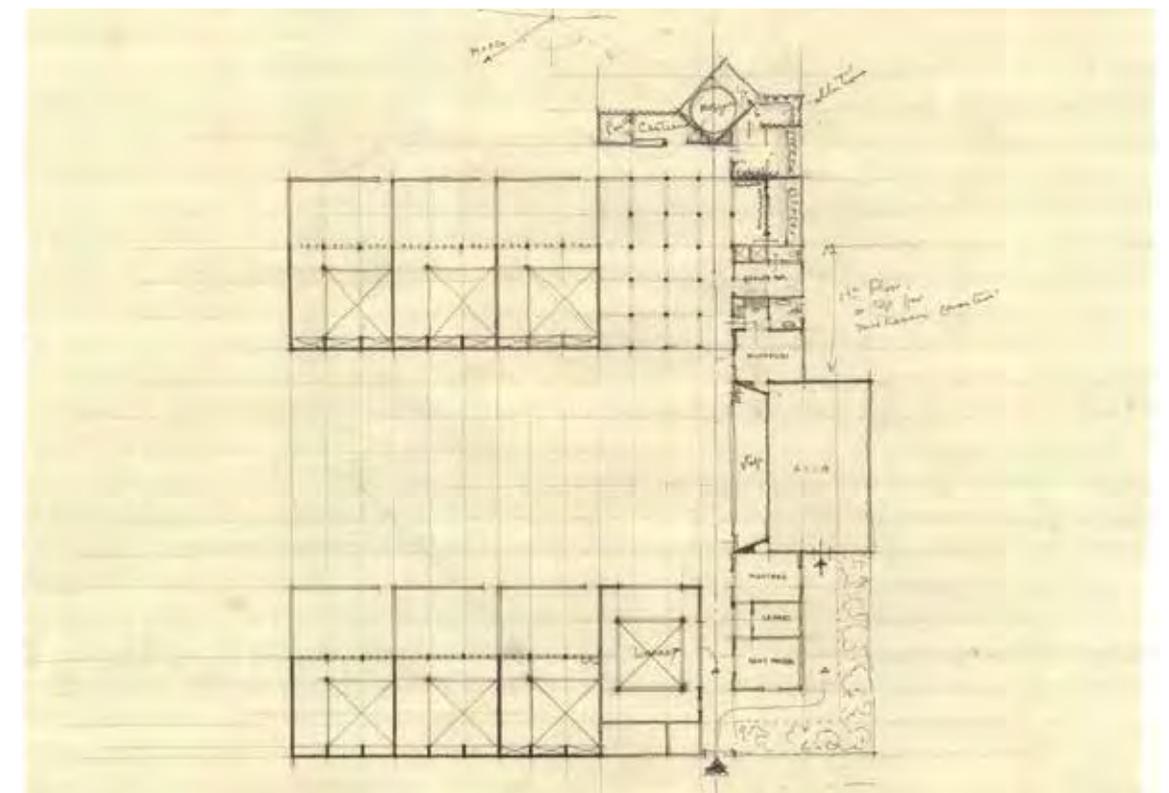


Original plan of the Al-Basry Village (1945). Source: RBSCl, AUC

¹ This paper was written based on the study titled 'Mitosz és valóság - Hassan Fathy építészete' (Myth and Reality - The Architecture of Hassan Fathy) submitted to the Students' Competition at BUTE in 2015, written by Eszter Nagy; consultants: Rita Dolmány, Zsolt Vasáros. The full study is available here: <http://tdk.bme.hu/EPK/modern/Mitosz-es-valóság>



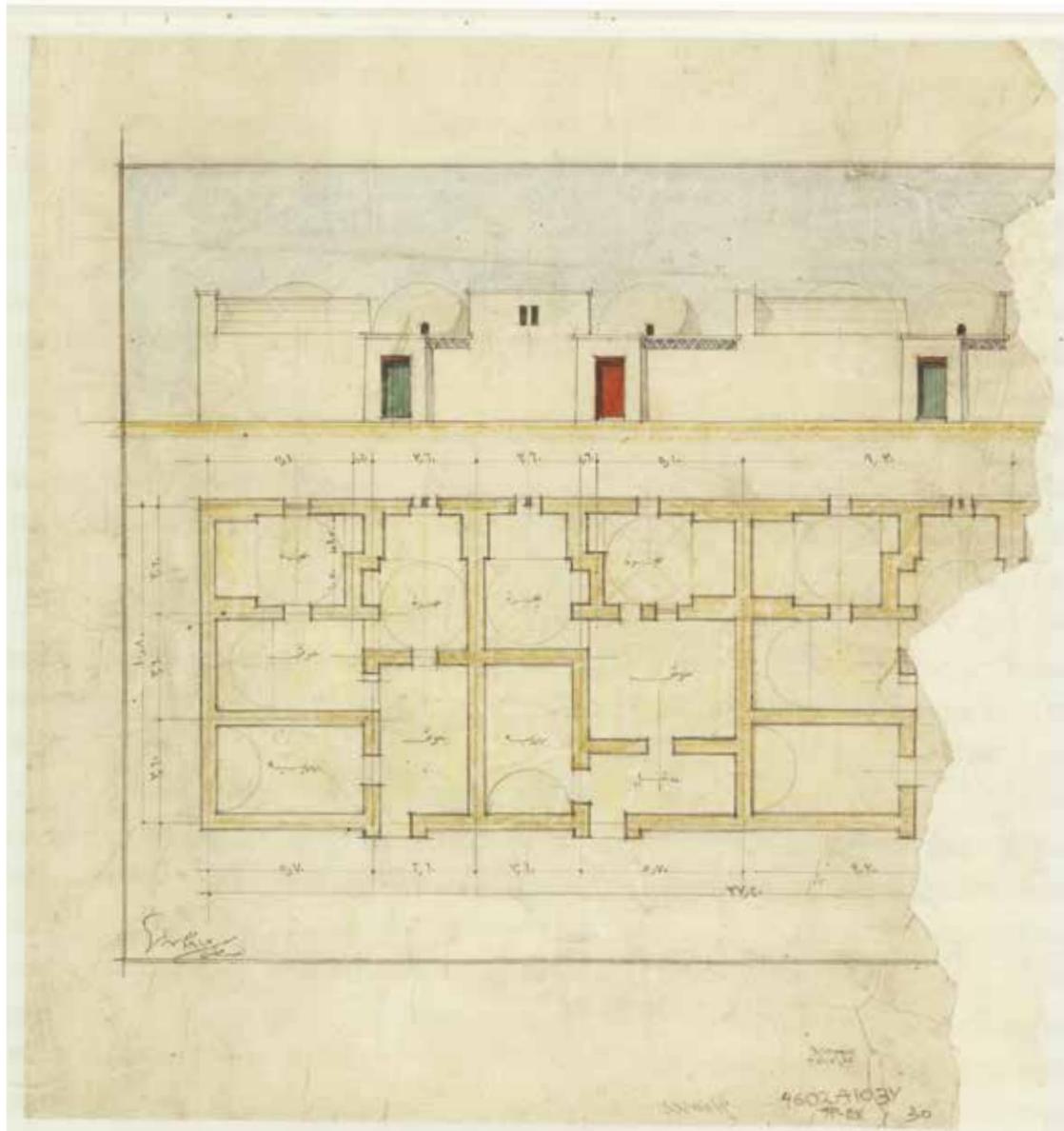
Original plan of houses in New Gourna. Source: RBSCl, AUC



Original plan of the School in Fares (1956), presumably a version for reinforced concrete structure. Source: RBSCl, AUC

Fathy and the Modern

Rita Dolmány



Original plan of houses in New Gournah. Source: RBSC, AUC

It is easier to understand Hassan Fathy's oeuvre in the context of his time, therefore it is worthwhile to compare it with his contemporaries' approach and the emerging architectural styles of the modern era.

In general, a looser spatial organization characterised modern architecture which differed from the former architectural ages. This was possible because new building materials and construction technologies appeared, that gave an opportunity for experimentation. Architectural design was pushed into the background, architects were using simple, puritan forms and geometrical elements. Architectural spatial design served utility and functionalism. The designers did not create value by using certain materials but with the way they used them. With this approach, architecture could meet the increased demand for the construction of more and more buildings.

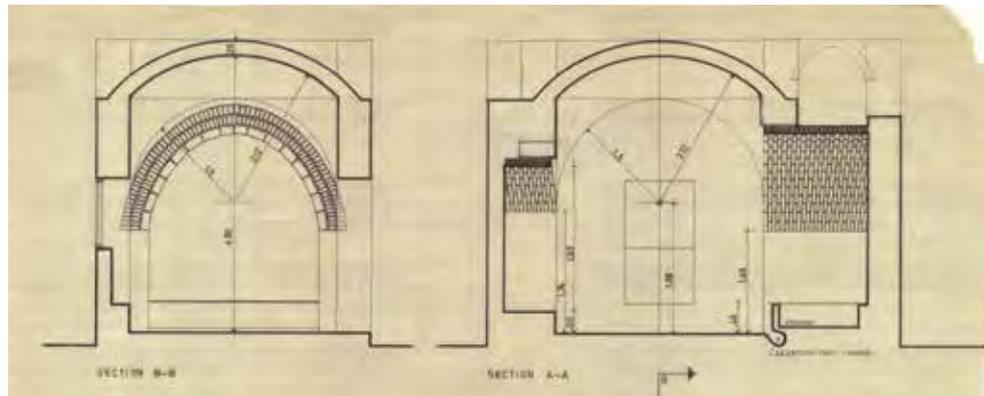
Adolf Loos, a prominent figure of modern architecture propagated the beauty of the material and fine elaboration instead of ornamentation; Fathy, inspired by vernacular architecture, emphasized its puritan forming. Contrary to the discipline of modern architecture both architects used stylistic elements, even Loos admitted that. Their relation to the techniques however are quite different. While Fathy turned to traditional techniques, Loos believed in the application of technical innovations used as a reasonable tool in the service of people. Just like Fathy, Loos also willingly applied well-tested solutions for several problems; however, he rejected the use of typical elements which is raised an interesting question in connection to Fathy's architecture. Although Fathy believed that there were no two identical tasks or persons, New Gournah was built using standardized units that unfortunately could not serve the real needs of the people despite the fact that the architect interviewed the future residents. Naturally, the dilemma arises whether it is possible to create a completely new settlement where every element is unique. The necessity was not a personal choice anymore in the 1940's, after the World War II renewing the cities, villages was a natural process all over the world.

Parallels can be observed not only between Loos's and Fathy's work: the work of Walter Gropius, who was a leading figure of Bauhaus follows the same path. Fathy's attitude to architecture shows similarities with Gropius's approach, which highlights that both architects were influenced by the spirit of the modern age. Though Fathy did not write his manifesto in bullet points, many of Gropius's principles can be discovered in his writings and work. In both of their works, people have played a central role. Movements to improve and change living conditions were very important for them, just as it was to build for the people after analysing and satisfying their needs, instead of merely architecture for architecture's sake. In this period Fathy devoted his attention to social architecture, he wanted to help people living in extreme poverty. But today, looking from a different vantage point, we can say that his ideas in this area were not realised according to his intentions, or as it is stated

about him in professional articles later.¹ The application of the local traditions, design, technology was essential for Fathy as opposed to Gropius, who found it inconceivable to use locally related solutions. He only took the climatic conditions into consideration, which also played a central role in Hassan Fathy's architectural attitude. However, by using the local solutions for these questions he already had well-tested answers.

In the 20th century, the problem of losing local architectural character emerged as a result of the appearance of the modern. The merely functionalism-based, simplified, impersonal architecture was criticized as it could not consider the local character. Only after the 1950s were some views developed, which brought attention to the local identity; however, the meaningless utilization of architectural forms and elements was to be rejected because that would have led to populism. Sigfried Giedion thought that the new regionalism should not only be imitating the local design and materials, it should catch the mentality and spirit of the place.²

Hassan Fathy realised he can create value in Egypt by reviving the vernacular achievements. He rejected the aspirations of modern architecture and emphasized the utilization of local materials and the help of the community in the spirit of the local traditions. Although, due to the high demand in construction needs (e.g. designing the masterplan and the individual elements of the villages of New Gourna and New Baris) there are some motifs that are parallel with the paradigms of modern contemporaries. During the implementation of the projects Fathy aspired to use the cheapest solutions and kept the social needs and the availability of labour in mind. This led to the point where the standardization process so typical of modern architecture became unavoidable, and a number of its elements, such as the unified spans, isomorphic domes, identical windows and building constructional modules can be seen on the buildings still standing.³

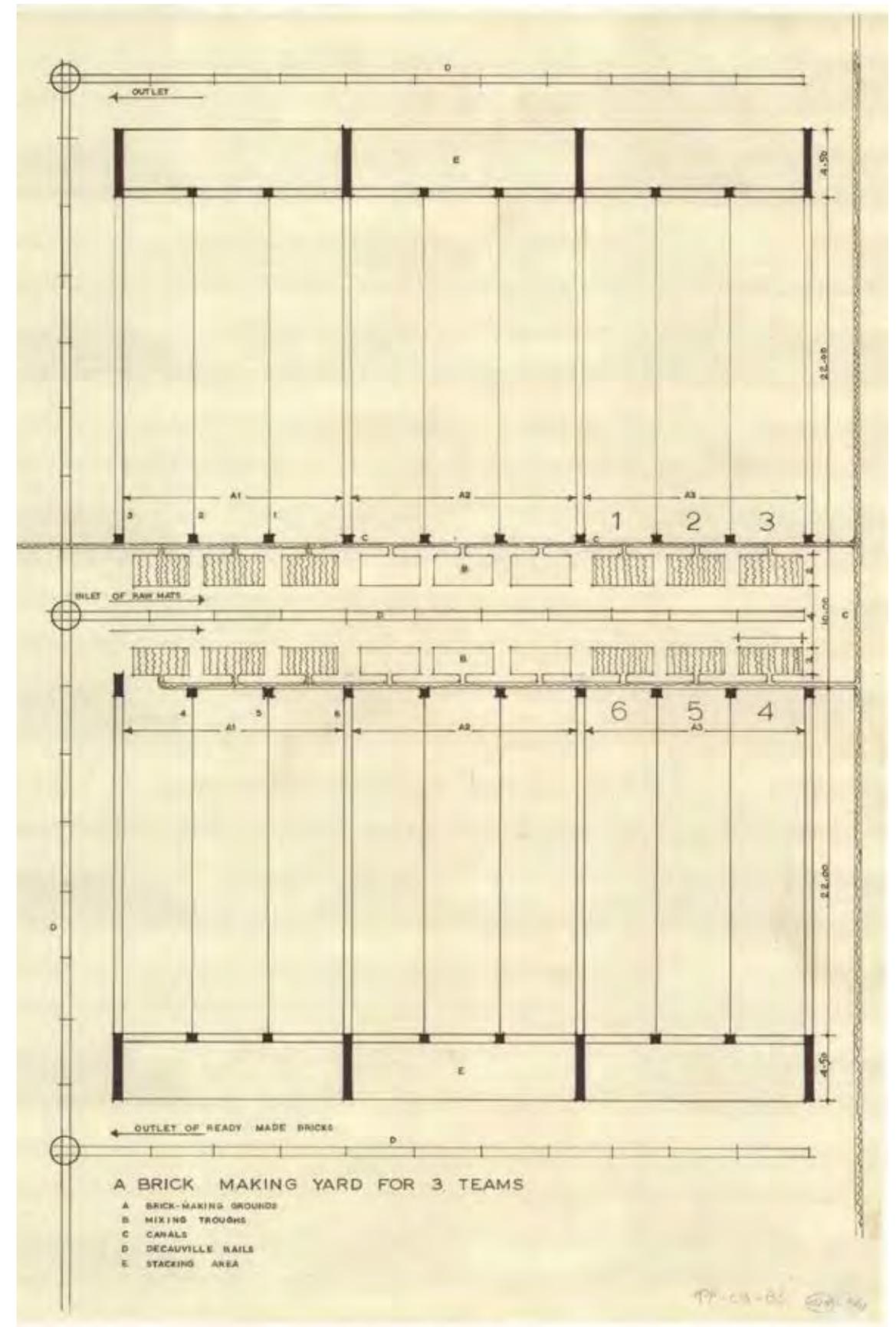


Original plan from the Mud Brick Manual compiled by H. Fathy. Source: RBSC, AUC

1 See in general HAMID 2010, 45-147.

2 About Giedion's New Regionalism see CANIZARO 2007, 310-319; also GIEDION 1941, 194.

3 This paper was written based on the study titled 'Mítosz és valóság - Hassan Fathy építészete' (Myth and Reality - The Architecture of Hassan Fathy) submitted to the Students' Scientific Association Conference at BUTE in 2015, written by Eszter Nagy; consultants: Rita Dolmány, Zsolt Vasáros. The full study is available here: <http://tdk.bme.hu/EPK/modern/Mitosz-es-valosag>



Original plan from the Mud Brick Manual compiled by H. Fathy. Source: RBSC, AUC



The courtyard of the Crafts School. Rendering: D. Kalász, 2017.

DIPLOMA PROJECTS

Crafts School and Visitor Centre

DÓRA KALÁSZ

consultant: Prof. Zsolt Vasáros (Architecture),
Balázs Tókécs (Construction Management),
Boldizzár Medvey (Building Constructions),
Dr. István Sajtos (Mechanics and Structures),
Erzsébet Lányi PhD,
Lajos Gyurcsovics (Energetics and Building Services),
Gergely Dávid Szabó (Electrical Services)

CONCEPT

Despite the failure of the New Gourná model village project, the settlement carries historic value and is important to preserve. In my university project I was looking for a solution which could move this settlement one step further from its current situation and could help contribute to its development.

I based the design program on the reinterpretation of a vanished function on a once important but now abandoned area. The aim of the project is to preserve and further local values and traditions.

The design area, the former cattle market has a prominent place in the carefully designed urban fabric of New Gourná. Because of its function, direct connection to the road network was important; therefore, the site is located alongside the railway line and next to the road which leads to the Valley of Kings from the port. With the significant transformation of the social environment, the market as a function has disappeared from the Model Village, but the area has remained almost completely untouched. Buildings of the market, such as the Southern Gate by the railways, the Northern Gate, which was the service entrance and the Dovecote fully disappeared as the result of continuous informal construction works. The vaulted arcade on the eastern side is the only remaining structure, but it is also quite run down. Currently, there is a lime trading stand in the southwestern part of the plot, the northern part, separated by a gate and walls is empty and locked down.

Egyptian handicraft industries, such as weaving, pottery, painting, alabaster processing played an important role in the country's life, but started to disappear in the 21st century. A Craft School was part of the original masterplan of New Gourná, but the building and the function along with it have completely disappeared.

Thus, the goal of the project is to revive the now less active crafts on a site which was once a prominent and vital part of the settlement.

DESIGN PRINCIPLES

Due to the local climatic conditions, creating sufficient interior climate was an important factor in the design process. The design was based on Hassan Fathy's modern-vernacular architecture and contemporary African architecture.

Vernacular architecture uses various elements to promote natural ventilation (e.g. malqafs, mashrabiyyas, water surfaces, courtyards). Thick mudbrick walls protect against

high temperatures. In contemporary African architecture, the work of Francis Diébédo Kéré stands out the most. His building design is based on local raw materials and available labour force, and he revolutionises the passive ventilation system in simple buildings.

The components of the ventilation system I use in my project are transformed into conceptual elements and play a definitive role in how the mass of the building is shaped. The draft between the double-layered roof and the air ducts leading through the floor activates the passive ventilation system. The continuous draft flow is facilitated by the curved shape of the roof. The mashrabiyyas occupying the full width of walls provide continuous cross ventilation and give the buildings a more traditional, romantic appearance. Defining the best orientation, reflecting both to the prevailing wind and to the path of the sun, was a key factor.

Turning their backs to the typical western wind, the buildings assist ventilation system. The large, pierced façades face north and northeast, the other sides of the building have only a few openings. Sufficient internal temperature is provided by thick adobe walls. The positioning of the houses is deliberate. On the one hand, they form a quite interesting spatial structure, on the other hand, they break the potential unpleasant draft between them. The water surfaces in the courtyard cool the ambient air by the way of evaporation, and the closeness of the buildings provide continuous shade.

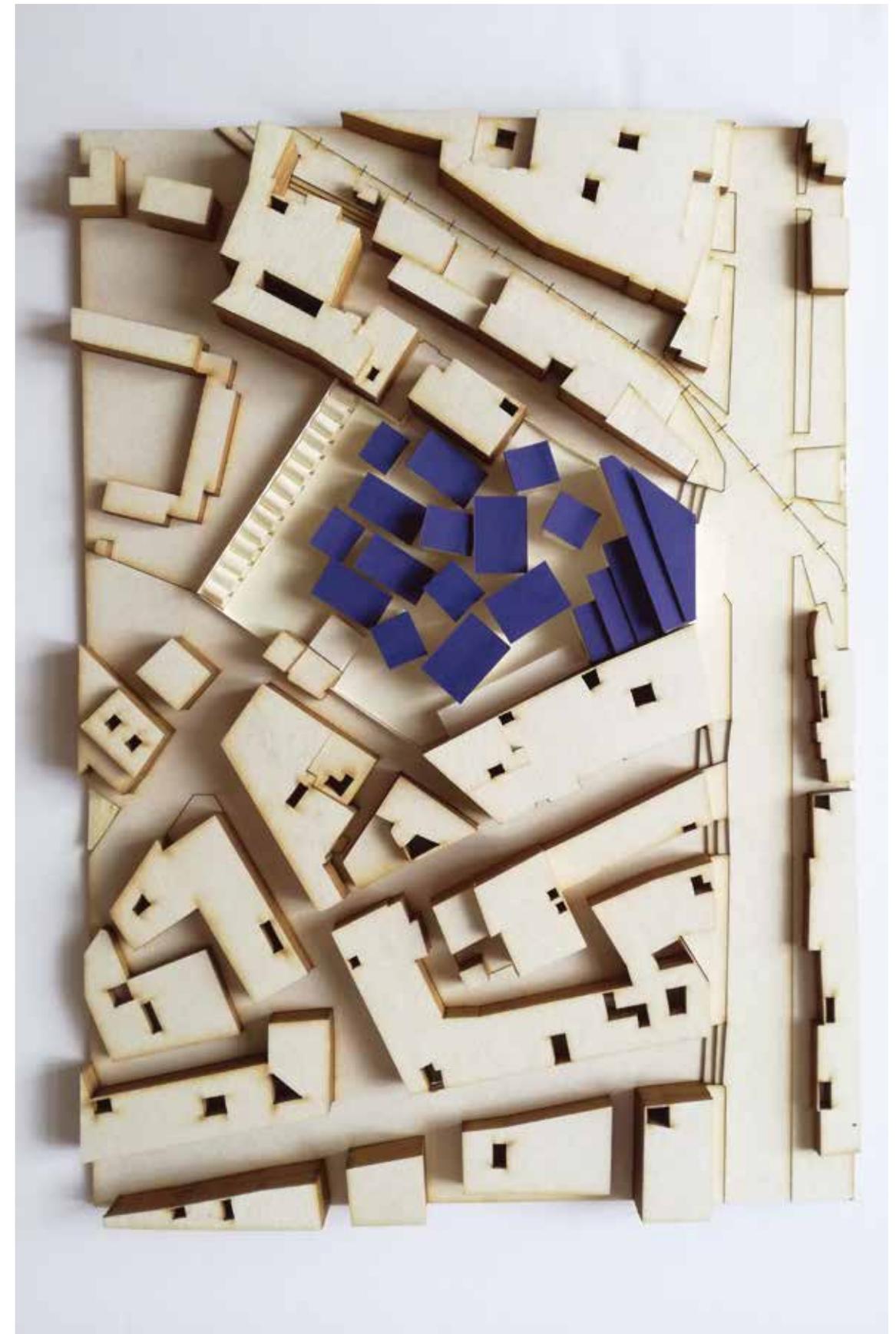
FUNCTION

The Craft School and the Visitor Centre consist of several buildings. The main building houses an exhibition, a café and a gift shop. The units for educational activities (classrooms, library, teachers' office, canteen) are located on the north-eastern part of the site, and the workshop buildings are located in an irregular system in the middle of the area. Small warehouses are located directly next to the western neighbourhood. The public entrance is located by the main building, and the service entrance is on the north.

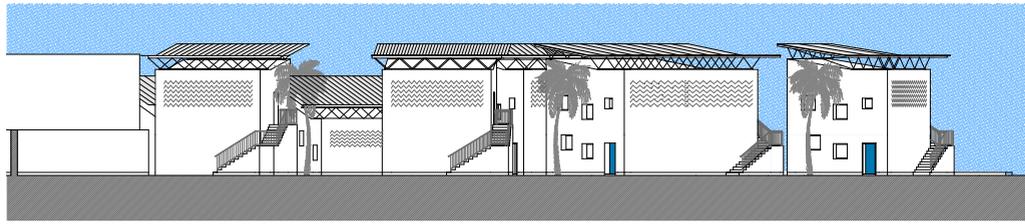
The mixed functions ensure the year-round operation and the economic sustainability of the building complex by supporting each other. The visitor centre is open throughout the year, it can host summer camps and workshops outside school hours.



View of the project from above. Rendering: D. Kalász, 2017.



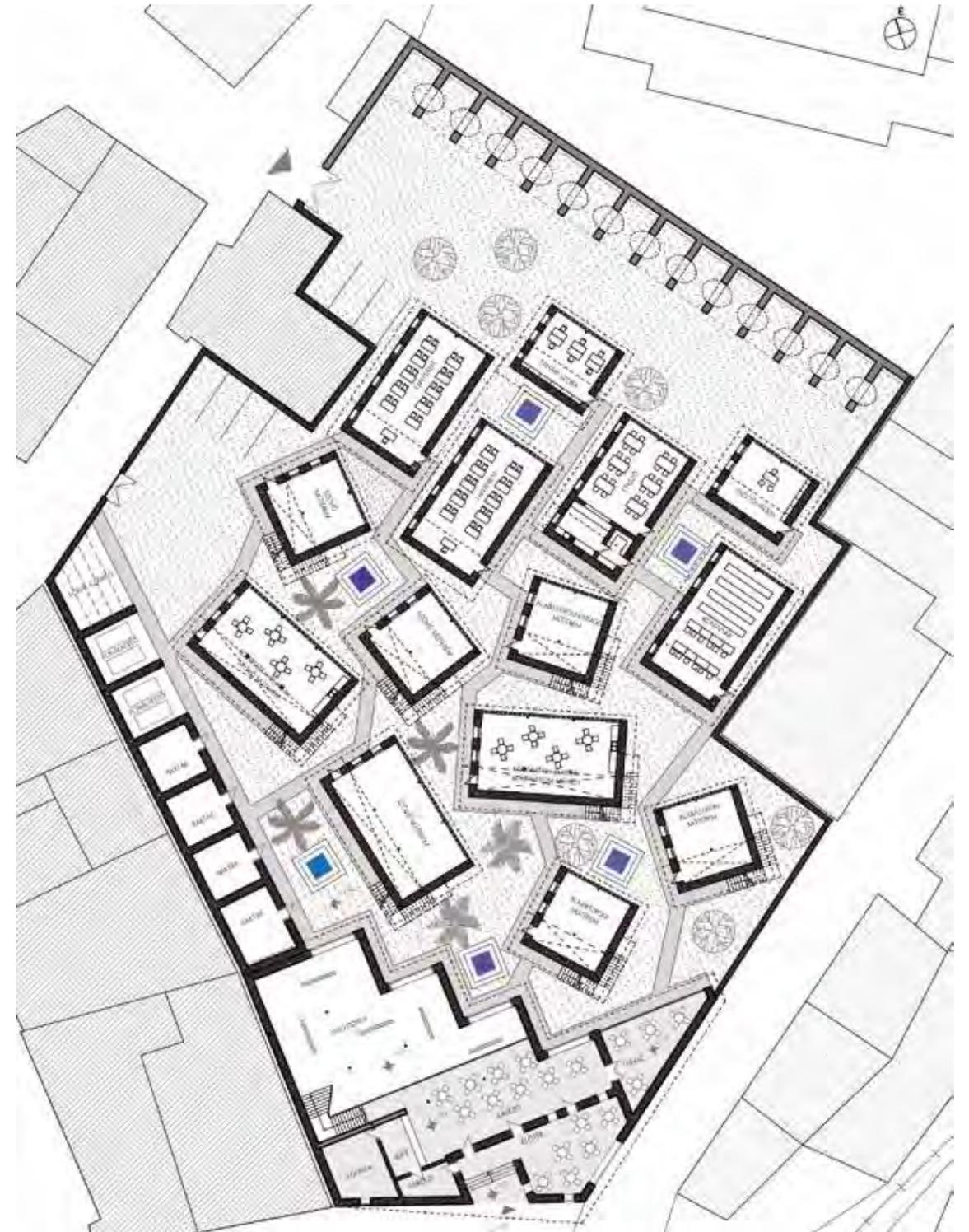
Model of the project. Photo: Zs. Bogáthy, 2017.



Sections. Drawing: D. Kalász, 2017.



Siteplan. Drawing: D. Kalász, 2017.



Floorplan. Drawing: D. Kalász, 2017.



Main entrance of the Crafts School and Visitor Centre. Rendering by D. Kalász, 2017.

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ABBREVIATIONS:

- RBSC , AUC - Rare Books and Special Collections Library, the American University in Cairo
BUTE - Budapest University of Technology and Economics
CASAE - Cahiers supplémentaires des ASAE (Cairo)
IFAO - Institut Français d'Archéologie Orientale
DÁVID – VASÁROS 2020 - DÁVID, D. – VASÁROS, Zs. (eds.) 2020. Publications of the Office of the Hungarian Cultural Counsellor in Cairo 2018-2019. Current Research of the Hassan Fathy Survey Mission in Egypt. Budapest-Cairo.
HFSM - Hassan Fathy Survey Mission



Members of the Mission in 2016. From the left: I. F. Szűcs, J. Pokol, S. Balázsik, D. Dávid, Zs. Vasáros, G. Nagy, G. Sági, F. Tibai, K. Kovács, E. E. Bandur-Juhász, K. Lovas.



Gamal Ahmed Tawfiq in New Baris during the survey. Photo: Zs. Vasáros, 2015.



Participants of the Workshop in March 2015 in Luxor, and members of the Mission. Photo: Zs. Vasáros.



Members of the Mission in March 2017: D. Dávid, N. Andrásy, A. Lukács, L. Veres, B. Miklós, K. Kovács, A. Somlai, L. Maklári. Photo: V. F. Tibai, 2017.



A. Somlai, N. Andrassy and V. F. Tibai during the survey work in New Gourna. Photo: L. Veres, 2017.



Gamal Ahmed Tawfiq in New Gourna during the survey. Photo: Zs. Vasáros, 2015.



The legendary minivan of Gamal Ahmed Tawfiq in Wadi Sebuia and the members of the Mission in January 2017: E. Kosztolányi, A. Vörös, K. Gacsályi, T. Nagy and D. Kalász. Photo: Zs. Vasáros, 2017.



Á. Lévy and B. Csenedes during the survey work in the Mosque in New Gourna. Photo: Zs. Vasáros 2015.

