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Mercedes Volait

Experimenting with subsidised terraced housing: Mahmoud Riad's garden suburbs 1950-54

The development of subsidised housing in Egypt has long been considered a legacy of Nasserism.¹ By the same token, Hassan Fathy's New Gurna (Upper Egypt) was commonly dated after 1952. Both conceptions are misleading.² The provision of affordable housing to low-income urban dwellers is a concern that can be traced back to at least the interwar period.³ New Gurna model village started in 1947, and is rooted in the programmes of rural reform that were launched in Egypt in the 1930s.⁴ The idea of subsidised housing emerged in the late 1940s; architect Mahmoud Riad⁵ (1905–1979) was a key player in its dynamics and provided a significant contribution, although implementation took place after 1952.

An enduring concern in pre-Nasserist Egypt

A prime milestone in the public involvement with housing for low-income groups can be situated in the immediate aftermath of World War I. Construction work had virtually stopped during wartime. The supply of coal and other building materials had ceased, and no alternative power allowed continuing the manufacturing of bricks, lime or cement locally. The acute housing shortage that ensued (a report estimated it to be of 8,000 houses in Cairo alone),⁶ coupled with dramatic inflation, affected not only lower income groups, but indeed the middle class.

Governmental intervention was envisioned in order to stimulate the construction of affordable dwellings. Land development companies and major employers were encouraged to lead the effort. The Heliopolis Oasis Company implemented a significant subsidized housing scheme in 1920–23 against the permission of further urban expansion. 615 dwellings were built and rented under market prices to low-rank government employees and local workers of the company. In the process, new typologies such as the four-apartment house with individual gardens were introduced.⁷

The Misr textile group, a holding created in 1927 to encourage Egyptian industry, started building large company towns during World War Two, at Mahalla al-Kubra (in two phases, 1941–47, and 1946–51, the latter on designs by Egyptian architect 'Ali Labib Gabr and town-planner 'Ali al-Maligi Massa'ud). Considered as “outstanding examples of housing for industrial workers” and the “last word of modernity,” the self-contained schemes included, besides dwelling units, all modern amenities: central restaurants and hospitals, markets and coffee shops, an open-air cinema, welfare centres, sporting fields, bathhouses, and automated laundry facilities.⁸ By 1950, twenty-two other enterprises had erected dwellings for their white-collar employees and

¹ After Janet Abu Lughod, *Cairo. The 1001 Years of the City Victorious*. Princeton: Princeton University Press, 1971, p. 231.

² See Mercedes Volait, “Réforme sociale et habitat populaire : Acteurs et formes (1848–1964)”, in *Entre réforme sociale et mouvement national : Identité et modernisation en Égypte (1882–1962)*, edited by Alain Roussillon. Cairo : CEDEJ, 1995, p. 379–410 (Arabic version in *Misr wa al-'alâm al-'arabî*, no. 4 (1995) : 9–54).

³ Yahia Shawkat, *Egypt's Housing Crisis: The Shaping of Urban Space*. Cairo: AUC Press, 2020, chapters 4 and 5.

⁴ Mercedes Volait, “The Early Steps of a ‘Romantic’ in Liberal Egypt,” in *Hassan Fathy, an Architectural Life*, edited by Leila El-Wakil. Cairo: AUC, 2018, p. 64–77.

⁵ I chose to keep the name of Riad in the transliteration himself used in his writings in English.

⁶ C. W. Haswell, “Town-Planning and Housing in Cairo,” *Garden Cities and Town Planning, a journal of housing, town planning and civic improvements* 11 (1921): 256–58.

⁷ *Annual Report of the Ministry of Public Works* (Cairo), 1922/23, p. 19–21. See also M. Sabry Mahboub Bey. “Cairo. Some notes on its history, characteristics and town plan,” *Journal of the Town Planning Institute XXI* (1934–35): 288–302.

⁸ “Madina al-'ummal bi al-Mahalla al-Kubra,” *Magalla al-Muhandisin IV*, no. 11 (November 1948): 36–40.

workers.⁹ In addition, there had been also some municipal efforts to house government workers. In 1947, the Department of Municipal Affairs (then within the Ministry of Interior) had launched a 6,000-unit scheme for workers attached to governmental workshops in Cairo, on designs made by ‘Ali al-Maligi Massa’ud in his capacity of head of the Town planning bureau of the Department. The scheme was meant to decongest the densely-populated neighbourhood where these workshops were located (Bulaq) and offer salubrious accommodation to their moderate-income workers just across the Nile at Imbaba. In 1950, 1,100 terraced apartments were achieved using the traditional British model of back-to-back 2-floor row housing, as well as some semi-detached units, with facades in stone, brick and plaster finishes in order to overcome monotony.¹⁰ [Fig. 2.2]

A larger scheme was envisioned in parallel. In 1949, the Council of Ministers had approved the allocation of further state land for economic housing to be built for government employees in the vicinity of Cairo, at Helwan (in the south) and Hilmiiyyat al-Zaytun (North East), on zones that have been initially reserved, in 1938, for industrial development.¹¹

Yet, housing civil servants and the industrial workforce only met a fraction of what was needed. As social reformers raised their voices louder in the 1930s, slum clearance and the provision of healthy dwellings in urban and rural areas came to the forefront. The largest share of the Egyptian population (75% in 1927) lived in the countryside in appalling conditions. A number of initiatives were developed to provide sanitization for the Egyptian village. Regulations were passed in 1933 and a few model villages were built by progressive landowners; recommended designs were disseminated through publications and industrial fairs. A Ministry of Social Affairs was established in 1939, with a department devoted to the Peasant (known as the *Fellah* Department) that instigated more model village construction. It was in this context that Hassan Fathy started experimenting with mud brick architecture for a model village at Bahtim (1940), following early uses of adobe construction in the US, and for a self-sufficient pilot community at New Gurna (1947–53).

In the same years, social scientist Ahmed Hussein (1902–1984) and architect and planner Mahmoud Riad embarked upon designing a scheme to provide housing for people with limited income.

Joining efforts: the collaboration of Ahmed Hussein and Mahmoud Riad

A committed social reformer, Ahmed Hussein had had an education in agricultural economics at Berlin University, gaining his Doctoral degree in 1927. While teaching at Cairo University upon his return from Germany, he had helped establish in 1937 the Egyptian Association for Social Studies, whose primary goals was the implementation of exemplary projects to find the best path to social reform. The group pushed for the creation of a governmental body which could “address all social and labour issues in both urban and rural Egypt”: the Ministry of Social Affairs was created in 1939 to that effect. Ahmed Hussein was appointed head of its *Fellah* Department, where he worked in particular at the creation of Rural Social Centres across the country.¹²

While primarily committed to rural welfare, Hussein did also engage with broader issues, among them social insurance for all and affordable housing for the unprivileged. During his tenure as Undersecretary of State in

⁹ Ministry of Social Affairs, *Social Welfare in Egypt*. Cairo, 1950, p. 66.

¹⁰ Hussein Mohammed Maged, “The Development and Economics of Low Cost Housing for Middle Class People in Egypt”, MA thesis, Bartlett College, 1953, pl. 87–90; ‘Ali al-Maligi Massa’ud, “Al-maskin al-sihhi min al-nahya al-takhtitiyya wa al-iqtisadiyya,” [The salubrious dwelling from the planning and economic point of view], *Al-‘imara*, no. 5/6 (1947): 17–35.

¹¹ Tawfiq ‘Abd al-Gawwad, “Muchkila al-masakin fi misr wa ‘alagha,” [The problem of housing in Egypt and its solution], *Al-‘imara*, no. 6/7/8 (1949): 71–84.

¹² On the creation of the Ministry, and Hussein’s life-time achievements, see Amy J. Johnson, *Reconstructing Rural Egypt, Ahmed Hussein and the History of Egyptian Development*. Cairo: AUC Press, 2004, in particular chapter 3.

the Ministry of Social affairs, he envisioned solutions for the latter problem. Associated to the task was architect Mahmoud Riad, who had been studying prototypes of low cost housing since his return from specialisation abroad.

After graduating from the Polytechnic School in Cairo in 1928, Riad benefited from the Egyptian Educational Mission Abroad program, which funded government employees to pursue higher education in Europe. Riad joined the small cohort of Egyptian architects who have had the opportunity through this scheme to specialise in “Civic design” at the Liverpool University School of Architecture, graduating in 1932 with a project for Alexandria.¹³ The Liverpool School had been a pioneer in offering courses and degrees since 1909 on the discipline known nowadays as town planning. Throughout his time at Liverpool, Riad was exposed to the teaching of Sir Patrick Abercrombie (1879–1957), a follower of the survey-based planning philosophy of Patrick Geddes, and the future central figure behind the rebuilding of post-war London. A promoter of the moral mission of planning, Abercrombie equally saw its function as one able to work out “effects of civic beauty” through design.¹⁴

Riad was subsequently appointed to the Building Department of the Ministry of Endowments (*Awqaf*) in Cairo, rising to the position of chief engineer in 1946. In this capacity, he was entrusted to design the plan of Madinat al-Awqaf, a large suburban extension on the West bank of the Nile at Cairo, today known as Muhandissin. The new development was advertised in the engineering press in 1948 as one combining “the beauty of Vienna and the elegance of Paris.”¹⁵ Interestingly enough, they were two of the three capitals that Abercrombie had studied, with Brussels, for the thesis he had presented in 1915.¹⁶ Abercrombie’s studies and teaching were seemingly not lost on Riad. His scheme for Madinat al-Awqaf was a grand one with large ways, a park-system, and ample perspectives, in the spirit of the British Civic Art and American City Beautiful movements, both rooted in French Beaux-Arts Classicism. [Fig. 2.3]

In parallel, Riad developed an interest in low cost housing. In 1934, he had gained a prize for a model housing and scheme he had submitted for the layout of a Worker’s city at Abu Za‘bal (Cairo’s northern outskirts).¹⁷ A decade later, he was commissioned to design workers dwellings for the Misr Fine Spinning & Weaving Co at Kafr al-Dawwar, near Alexandria, 1943–46. The Company, also part of the Misr Group, had been created in 1938 to spin and weave fine gray cloths from Egyptian cotton, to be dyed and finished at a near-by company, Beida Dyers, created the same year. Both companies were founded with British capital (a minimal participation of 20 % in the former, and conversely 80 % in the latter, both coming from the British firm Bradford Dyers).¹⁸ Both engaged in housing schemes for workers. Beida Dyers commissioned its own to the joint architectural firm of British John Prosper Serjeant (1898–1977) and Swiss Max Werner Zollikofer (1903–1966), while Misr Fine Spinning and Weaving entrusted to Mahmoud Riad the design of its company town. 366 units were built in a first phase, along a main model of attached 2-storey family units of 60 square meters with back yards, arranged in rows and separated by 20-m wide streets.¹⁹ (Fig 2.6 and 2.5) The dwelling type was a minimal unit made up of a living-room, kitchen and toilets on the first floor, and 2 bedrooms in the upper-floor, with a small balcony attached to the master one. It nevertheless represented a huge improvement considering the actual dwelling conditions of industrial workers. An extension, in form of a “garden-city,”

¹³ Mahmoud Riad, “Alexandria: Its Town Planning Development,” *The Town Planning Review* XV, no.4 (December 1933): 233–48.

¹⁴ Michiel Dehaene, “Urban Lessons for the Modern Planner: Patrick Abercrombie and the Study of Urban Development,” *The Town Planning Review* 75, no. 1 (2004): 1–30.

¹⁵ *Magalla al-Muhandissin*, March 1948, unpaginated.

¹⁶ Under the title “The Development of the Plan and Architectural Character of three European Capitals –Paris, Vienna and Brussels;” see Michiel Dehaene. “Urban Lessons for the Modern Planner,” *op. cit.*

¹⁷ *Al-Musawwar*, no. 482, January 5, 1934.

¹⁸ Robert Tignor, *Egyptian Textiles and British Capital (1930-1956)*. Cairo: AUC, 1989, p. 39–42.

¹⁹ Mahmoud Riad, “Masakin al-‘ummal,” [Workers’s housing], *Magalla al-muhandisin* (November 1947): 14–20.

Hada'iq Kafr al-Dawwar, possibly for self-built housing, was also designed by Riad. [Fig. 2.4] By 1949, the Misr Fine Spinning & Weaving Company was reported to have been building near its mills over 1,000 dwellings for the workmen, 240 other for skilled operatives, whilst foremen were housed in 6 apartment buildings. There are discrepancies in the available figures, as another source stated that about 2,500 dwelling units had been erected in total, of which 15 villas for engineers, 301 flats for the administrative personnel, and 2,168 flats and houses for the workers.²⁰ Whatever the case, it was a very large housing scheme, the largest in Egypt at the time. On the premises was a “most up-to-date restaurant, the first of its kind in Egypt and capable of seating 1,000 persons at a time”, as well as a social hall, recreation room, sports ground and a library.²¹ It was post-war time: optimism and faith in progress and welfare dominated the era.

Providing limited-income groups with decent housing

It is most probably his work at Kafr al-Dawwar which qualified Riad to work out with Hussein a scheme for providing housing to low-income groups. The 77-page document was published in 1949 under the title *Mashru' li-tawfir al-sakan lil-tabaqat al-mahdudat al-dakhl fi misr*, but sadly only a digest released in 1950 survives as “Summary of a report on the housing problem in Egypt with proposals for a ten-year plan.”²² Its main conclusion was that housing provision could not be sustainable in Egypt within strict market-economy. Based on available figures, the report estimated at 140,000 the number of dwelling units to be built in the following decade in order to cope with the country's situation, of which 40,000 in urban centres and 100,000 in the countryside. The calculation was based on population increase (since 1927, the country had gained 5 million inhabitants), building rates of new houses, average family size (5 persons) and rural-urban migration fluxes.

At market conditions, this would mean in the best-case scenario (an average total cost of EGP 200 per unit and a monthly rent of EGP 1), an annual capital return of 6%, which was not sufficient to cover interest, maintenance, management and taxes – 8% was the minimum requested. But even those low figures were unattainable for most. The average monthly income of workers was EGP 2.68 and only 1/6 of it could go for the rent. In addition, the average building cost had risen to EGP 600 per unit. The conclusion was all too obvious: the government needed to finance and subsidise housing.

A comprehensive program combining construction, land reservation, financing and changes in building materials was formulated by Hussein and Riad in order to address the situation. It suggested leasing at nominal rent government-owned land for economic housing, to increase public housing construction for civil servants, to provide financial assistance to interested parties and to experiment with new materials.

In 1950, Hussein became Minister of Social Affairs and was in position to take action. In March, he created a Department for Popular Housing (*maslaha al-masakin al-sha'biyya*) and named Mahmoud Riad as its head, a position he retained until 1953. A first initiative was to draft a law regulating governmental support to the construction of affordable housing for renting purposes. It was adopted by Parliament in October 1951 as Law no. 206–1951 on Popular Housing. Its stipulations granted a number of facilities to companies committing to build affordable housing; among them were access to public building land at reduced cost, exemptions on land taxes and rebates on customs duties due on imported building materials and machinery.²³

²⁰ Ministry of Social Affairs, *Social Welfare in Egypt, op. cit.*, p. 66.

²¹ “Société Misr pour la filature et le tissage fin en coton égyptien,” in Clément Levy, *The Stock Exchange Year-Book of Egypt*. Cairo, 1949, p. 499–501.

²² Ministry of Social Affairs, *Social Welfare in Egypt, op. cit.*, p. 113–16; see also Johnson, *op. cit.*, p. 128–30. While listed in the catalogue of the National Library in Cairo, the original report has not been seen in place since the early 1990s and no other copy has been identified so far.

²³ “La construction de logements avec l'aide de l'État en Égypte,” in Bureau International du Travail, *Informations sociales* VII, no. 1 (May 1st, 1952): 387–90.

The law was prepared with technical assistance received from abroad. In 1950, Professor Hans Spiegel (1893–1987) from Germany had been asked to produce propositions for social housing in Egypt.²⁴ The purpose was to seek ways of reducing construction costs to EGP250 per dwelling unit. A specialist of standardised and prefabricated housing, Spiegel had experimented initially with steel frames for house construction.²⁵ He is credited as one of the pioneering German architects who, like Ernst May and Martin Wagner, researched ways to rationalise architecture, by developing flexible construction kits and conceiving efficient assembly lines for serial production.²⁶ After studying the Egyptian situation in matter of housing needs and building conditions, Spiegel rejected mud brick construction as a system with a short life cycle (2 or 3 years maximum before it started disintegrating and called for repair) and one favouring the spread of vermin.²⁷ He also came to the conclusion that prefabricated housing was not an option in Egypt as it required a highly qualified workforce that was already fully absorbed by construction work in the main cities. He proposed instead to experiment with semi-assembled units, which components could be prepared on site by less qualified workers through using foamed concrete, such as “Betocel”, a porous cement-type material invented in 1944 by French engineer René Fays, or the “Ribal” system of hollow concrete blocks, developed by Dr. Abdellatif with rice straw ashes. Orientation was given priority in the design of the dwellings in order to make the most of natural ventilation and protection from the heat. Two prototypes were built at Kafr al-Dawwar and were ready in 30 days. Spiegel was also consulted on the possibility of using for doors and windows artificial wood made out of sugar cane waste, a material which could be easily manufactured in Egypt where sugar cane was abundant. He calculated that with local materials, 100,000 units a year could be built at an average cost of EGP 250 per unit. Three factories, located at Cairo, Alexandria and Suez, would be sufficient to produce the required quantities.²⁸

Relying on local supplies appeared as the most appropriate option to many. Writing in October 1951, the British ambassador observed that “the Government [has] of late been showing some interest in the possibility of purchasing and erecting a large number of prefabricated houses to relieve the acute shortage of accommodation for people in the middle and lower income groups, but no decision has yet been reached on this.”²⁹ The comment may have alluded to the introduction in Egypt of the patented system of prefabricated elements in vibrated reinforced concrete that had been invented by French engineer Eugène Mopin in 1928.³⁰ A group of Egyptian industrial managers and building contractors had just created the Habeco Company, in full Société égyptienne d’habitations économiques [Egyptian Company for Economic Housing] in order to market in Egypt the Mopin process, for which they had obtained the concession for the whole Middle East.³¹ Habeco likely used Mopin-patented prefabrication for works at Heliopolis,³² but it is not clear if other applications took place. Whatever the case, the British diplomat doubted, as Spiegel, that “the ordinary European-type of prefabricated structure would be suitable for Egypt.”³³

²⁴“Professor Dr. Ing. Hans Spiegel 80 Jahre”, *Burgen und Schlösser* 1973/1, p. 1.

²⁵ A short biography is available at <http://schaffendesvolk1937.de/personenverzeichnis/architekten/>

²⁶ Kurt Junghanns, *Das Haus für alle. Zur Geschichte der Vorfertigung in Deutschland*. Berlin: Ernst, 1994.

²⁷ Hans Spiegel, “Arbeit für den sozialen Wohnungsbau in Agypten,” *Bauwelt* 44 (November 2, 1953): 866–70, with gratitude to Philipp Oswald for forwarding a copy of the article and further material on Spiegel.

²⁸ Fédération égyptienne des Industries, “Le bâtiment et la crise du logement,” *Annuaire 1951/1952*. Cairo: Société orientale de publicité, 1952, p. 104–07.

²⁹ Commercial Relations and Exports Department, *Economic and Commercial Conditions in Egypt*, by A.N. Cumberbatch. London: HMSO, October 1951, p. 91.

³⁰ Eugène Mopin, “Procédés de construction par éléments standardisés en béton vibré,” *Chantiers. Organe technique de L’Architecture d’aujourd’hui*, no. 2 (1933): 36–8.

³¹ Fédération égyptienne des Industries, “Le bâtiment et la crise du logement,” *op. cit.*, p. 104–07.

³² *Egyptian Trade Index*. Cairo, 1955, p. 533.

³³ Commercial Relations and Exports Department, *Economic and Commercial Conditions in Egypt*, *op. cit.*, p. 91.

A similar conclusion on prefabrication was reached by the American consultant summoned in 1952 by the Technical Cooperation Administration of the State Department in the US, to study the same issue on request from the Egyptian government. The verdict on building material diverged however, at least for village construction. After visiting 25 recent housing developments, mostly located in rural areas but also in company towns and suburban estates, the report concluded that “costs of village construction can be kept at a minimum by making fullest use of the universal raw material, Nile clay properly handled, for walls, roofs and floors, using burned bricks in foundations and sun-dried brick for the rest of the house.”³⁴

In the wake of Law 206-1951, the Department for Popular Housing started studying housing types inspired by the ones implemented at Kafr al-Dawwar by Mahmoud Riad, in order to launch the construction of 3,500 subsidized dwellings in Cairo. It seemingly put into practice the building process devised by Hans Spiegel for semi-assembled units.³⁵

Implementing the scheme

The scheme was mainly implemented in 1953 and 1954, with a few alterations following the change of regime that took power in 1952 at the initiative of the Free Officers. In particular, it was decided to increase to 4,000 the units to be built and to use for the purpose three zones that had been previously allocated for government-employees housing in 1949 (on land initially devoted to industry). The categories of beneficiaries were enlarged to anyone with monthly wages between EGP10 and 25, whether white- or blue-collars, in the public sector or not. It was also decided to offer the units for ownership rather than rent, thus transferring maintenance costs to individual owners. A committee was formed with engineers from various technical services across the Egyptian administration in order to fix the housing types to be implemented. Several types were considered and discussed. Low-density housing (1 to 2 storeys) was ultimately preferred to multi-storey buildings, on the basis of 30 units per feddan.³⁶ Three variants of the 2-storey attached townhouses were designed. Model A and C were conceived by Mahmoud Riad and ‘Ali Khayrat; model B was designed by Hamid Mukhtar, an engineer who had studied sanitary engineering in London during the late 1920s.³⁷ The unit surface was increased to 70 sq meters and new hygienic norms were introduced. The eating-room was separated from the kitchen; bathroom and toilets were also disjointed and located at mid-floor in a rear appendix to each unit, and a “veranda” opening onto the back yard was added [Fig. 2.7 & 2.8].

The scheme was widely announced by the Department of Popular Housing (Ministry of Social Affairs); 18,000 application forms were distributed within a month, out of which 4,500 were immediately returned with the required down payment of EGP25, to the surprise of the Ministry.³⁸ In order to cope with the demand, a new organism was created under Law 601 of December 12, 1953: *Shirka al-ta‘mir wa al-masakin al-sha‘biyya*, with a 20% participation of the State in its capital and a guarantee of 4% return on investment for shareholders. A subsidy was set for each unit built in order to reduce expenses for beneficiaries.³⁹ Tenders were opened in March 1954 for the construction of 2,033 units at Imbaba and 650 at Hilmiyyat al-Zaytun. The former took place on the land reserved for the 6,000-unit housing scheme initiated at Imbaba in 1947, of which only one-sixth had been built. In the spirit of the 1952 Revolution, it was named Madinat al-Tahrir. [Fig.2.9] A third location was chosen at Helwan for 600 further units. In a second phase, 2,000 new units were built at

³⁴ Arthur D. Little, “Preliminary Report on Egyptian Village Housing, Building Materials and Methods of Construction.” Cambridge, Massachusetts, April 1952, 95 pages.

³⁵ Fédération égyptienne des Industries, “Le bâtiment et la crise du logement,” *op. cit.*, p. 104–07.

³⁶ Ahmad Rifa‘t, “Machru‘at al-masakin al-sha‘biyya,” [Projects for popular housing], *Al-‘imara*, no. 7/8 (1953/54):77–82.

³⁷ *Magalla al-muhandissin* (March 1955):10-4.

³⁸ Ahmad Rifa‘t, “Machru‘at al-masakin al-sha‘biyya,” [Projects for popular housing], *op. cit.*

³⁹ Eva Garzouzi, *Old Ills and New Remedies in Egypt*. Cairo: Dar al-Maaref, 1958, p. 67–73; Samir Fikri, “Al-iskan al-sha‘bi fi misr,” [Popular housing in Egypt], *Al-‘Imara*, no. 1 (1957): 17–24.

Helmiyyat al-Zaytun. All were laid-out on the principle of row housing, with back-to-back yards, alternating with rows arranged around closes and squares. A key concept of garden-city design, a close refers to enclosed public space provided by a circular dead-end street, a U-shaped secondary street, or any other arrangement that leaves central space for a community garden or structure, thereby offering a sense of enclosure to fronting houses.⁴⁰ Provision was made for generous public space as well as schools, mosques, hospitals, and arcaded-market places, in the spirit of the publicly-built garden-cities, organised around civic centres, of the interwar period in Britain and elsewhere.

When surveyed in 1991,⁴¹ the three developments were being altered by the typical transformation process that consists in adding floors to any privately-owned construction in Egypt. [Fig. 2.11 & 2.14] Yet, from a few intact units [Fig. 2.12 & 2.13], one could get a glimpse of the homogenous urban scape that once was. Each site also still retained some of the urban qualities provided by the initial lay-out, and in particular the semi-private space offered to children outside the houses and that opened on the communal green space. [Fig. 2.1]

A rare example of terraced housing in Egypt

In Egypt, *Siedlungs* for workers erected in the wake of the country's industrialisation provided an early step towards designing appropriate housing for the non-privileged, as exemplified by Mahmoud Riad's achievements at Kafr al-Dawwar and his subsequent governmental activity. The implementation phase of the scheme of 4,000 units of "popular housing" illustrates the combination of change and endurance of plans that characterises any urban development, even in times of strong political transformation. Initiated in 1950, the scheme was ultimately built from 1954 onward with some modifications, while keeping up with the initial spirit of the suburban terraced housing envisioned by British-trained Mahmoud Riad and the rationalised building process recommended by Hans Spiegel, the German expert who provided technical assistance. In this sense, Madinat al-Tahrir, Helmiyyat al-Zaytun and Helwan al-Gadida were mergers of know-hows: they are an amalgamation of European economic housing and building rationalisation, adapted to Egyptian social, climatic and labour conditions. They best exemplify the model of "global ambition and local knowledge" defining modernism in the Middle East in the very words of Gwendolyn Wright.⁴²

Launched in the immediate aftermath of the 1952 Revolution, the three subsidised housing estates are a living testimony of the dreams of social improvement raised by the post-war period and the new regime. The tragic defeat of 1967 made such hopes come to a halt. With most resources driven to the war effort, cheaper housing developments were devised. Subsidised family units were replaced by ill-constructed block-of-flats that deteriorated at fast pace; terraced housing was discontinued. Ulterior social housing policy makes the low-density suburban schemes devised by Riad and Hussein even more unique.

Illustrations

2.1

Children playing in the semi-private lanes serving the dwellings opening onto the communal gardens, at Helwan al-Gadida, 1997.

⁴⁰ The close was conceptualised by Raymond Unwin, *Town Planning in Practice, an introduction to the Art of Designing Cities and Suburbs*. London: T.F. Unwin, 1909, chapter 6 "Of Centers and enclosed places" *passim*.

⁴¹ Mercedes Volait, "De l'habitation salubre au logement de masse, L'expérimentation égyptienne en matière d'habitat économique et social," Rapport réalisé en juin 1991 pour le Bureau de la recherche architecturale, ministère de l'Équipement et du Logement, 136 pages.

⁴² Gwendolyn Wright, "Global Ambition and Local Knowledge," in *Modernism and the Middle East. Architecture and Politics in the Twentieth Century*, edited by Sandy Isenstadt and Kishwar Rizvi. Seattle: University of Washington Press, 2008, p. 221–54.

2.2

Lay-out of Workers Housing in Imbaba, by planner 'Ali al-Maligi Massa'ud, 1947.

2.3

"The beauty of Vienna and the elegance of Paris are to be found at Madinat al-Awqaf": advertising the new town in 1948.

2.4

"Hada'iq Kafr al-Dawwar": lay-out for Kafr al-Dawwar garden-city, c. 1947.

2.5

Housing type 1, conceived for workers's housing at Kafr al-Dawwar, c. 1947.

2.6

Lay-out of the workers's city at Kafr al-Dawwar showing the distribution of the four housing models of terraced dwellings across the estate, c. 1947.

2.7

Section and elevations of model B conceived for "popular housing," by architect Hamid Mukhtar, 12 January 1954.

2.8

Floor plans of model B conceived for "popular housing," by architect Hamid Mukhtar, 12 January 1954.

2.9

Plan and general view of Madina al-Tahrir [Liberation City].

2.10.

One of the few unaltered 2-storey units still bordering a communal garden at Hilmiyyat al-Zaytun.

2.11.

New buildings replacing the previous 2-storey units built along communal gardens at Helwan al-Gadida.

2.12

A row of dwellings on model B at Hilmiyyat al-Zaytun showing initial construction and subsequent adds-on, as existing in 1997.

2.13

Unaltered model B units at Hilmiyyat al-Zaytun, as existing in 1997.

2.14.

Remnants of one of the initial communal gardens at Helwan al-Gadida, 2021.

Credits and sources

2.1

Photograph by Mercedes Volait, 1997.

2.2

Magalla al-'imara, no. 5/6, 1947, between p. 32 and 33.

2.3

Magalla al-Muhandissin, March 1948, unpaginated.

2.4

Archives of Riad Architecture.

2.5

Archives of Riad Architecture.

2.6

Archives of Riad Architecture.

2.7

Magalla al-muhandissin, March 1955, p. 12.

2.8

Magalla al-muhandissin, March 1955, p. 13.

2.9

Al-'Imara, no. 1, 1957, p. 21.

2.10.

Photograph by Karim El Hayawan, 2021.

2.11.

Photograph by Karim El Hayawan, 2021.

2.12

Photograph by Mercedes Volait, 1997.

2.13

Photograph by Mercedes Volait, 1997.

2.14.

Photograph by Karim El Hayawan, 2021.